

SNUPPS

Standardized Nuclear Unit  
Power Plant System

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Rockville, Maryland 20850  
(301) 869-8010

September 17, 1984

Nicholas A. Petrick  
Executive Director

SLNRC 84-0114 FILE: 0278  
SUBJ: Callaway Plant As-Built  
Drawings

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Docket Nos: STN 50-482 and STN 50-483

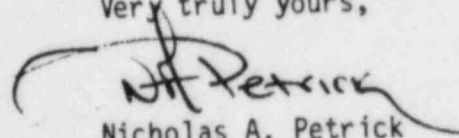
Reference: SLNRC 84-0042, dated March 14, 1984, Revision Fourteen to  
SNUPPS FSAR

Dear Mr. Denton:

The drawing list (Section 1.7) in the SNUPPS FSAR was updated in revision fourteen as transmitted with the reference letter. In the letter enclosure, SNUPPS committed to provide three copies of listed Callaway Plant as-built drawings approximately 90 days after fuel load. This letter documents delivery of these drawings to the NRC except as noted below.

Attachment 1 provides a complete updated list of the Callaway as-built drawings referenced in Chapter 1 of the SNUPPS FSAR. Three drawings, as listed in Attachment 2, are not available at this time; three copies of these drawings, two of which are proprietary, will be separately transmitted before the end of October.

Very truly yours,



Nicholas A. Petrick

SLA/n1d6a1  
Attachment

cc: G. L. Koester	KGE	H. Bundy	USNRC/WC
J. M. Evans	KCPL	B. L. Forney	USNRC/RIII
D. F. Schnell	UE	D. R. Hunter	USNRC/RIV
J. Neisler/B. Little	USNRC/CAL		

DRAWINGS TO: REG FILE 1SET

P. O'CONNOR 1SET

J. HOLONICH 1SET

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APERTURE CARD DISTRIBUTION

Complete List of Callaway As-Built Drawings

List of Figures	3 pages
(drawn from SNUPPS FSAR Section 1.0 contents)	
Electrical, Instrumentation and Control Drawings	20 sheets
(updated from SNUPPS FSAR Table 1.7-1)	
Piping and Instrumentation Diagrams	7 sheets
(updated from SNUPPS FSAR Table 1.7-2)	

SNUPPS

LIST OF FIGURES

<u>Number</u>	<u>Title</u>	<u>Drawing Number</u>	<u>Rev.</u>
1.1-1	Symbols and Legend for System Flow and Piping and Instrumentation Diagrams	M-020101 M-020102 M-020103 M-020104	4 3 2 1
1.2-1	Standard Plant Building Arrangement	M-0G001	1
1.2-2	Equipment Location Radwaste Building Plan El. 1976'-0"	M-0G0010	7
1.2-3	Equipment Location Radwaste Building Plan El. 2000'-0"	M-0G011	8
1.2-4	Equipment Location Radwaste Building Plan El. 2022'-0"	M-0G012	6
1.2-5	Equipment Location Radwaste Building El. 2031'-6" & Roof Plan	M-0G013	7
1.2-6	Equipment Location Radwaste Building Sections A & B	M-0G014	7
1.2-7	Equipment Location Radwaste Building Sections C & E	M-0G015	6
1.2-8	Equipment Location Radwaste Building Sections D & F	M-0G016	6
1.2-9	Equipment Location Reactor and Auxiliary Building Plan Basement El. 1974'-0"	M-0G020	6
1.2-10	Equipment Location Auxiliary Building Partial Plan El. 1988'-0" & 2012'-0"	M-0G021	5
1.2-11	Equipment Location Reactor and Auxiliary Building Plan Ground Floor Elevation 2000'-0"	M-0G022	10
1.2-12	Equipment Location Reactor and Auxiliary Building Plan El. 2026'-0"	M-0G023	8
1.2-13	Equipment Location Reactor and Auxiliary Building Plan Operating Floor Elevation 2047'-6"	M-0G024	10
1.2-14	Equipment Location Reactor and Auxiliary Building Plan Elevation 2068'-8"	M-0G025	8
1.2-15	Equipment Location Reactor and Auxiliary Building Section A	M-0G026	6
1.2-16	Equipment Location Reactor and Auxiliary Building Section B	M-0G027	8

SNUPPS

<u>Number</u>	<u>Title</u>	<u>Drawing Number</u>	<u>Rev.</u>
1.2-17	Equipment Location Reactor and Auxiliary Building Section C	M-0G028	9
1.2-18	Equipment Location Reactor and Auxiliary Building Section D	M-0G029	9
1.2-19	Equipment Location Reactor and Auxiliary Building Sections E, F, & G	M-0G030	7
1.2-20	Equipment Location Fuel Building Plan Elevation 2000'-0", 2026'-0", and 2047'-6"	M-0G040	1
1.2-21	Equipment Location Fuel Building Sections A, B, & C	M-0G041	4
1.2-22	Equipment Location Fuel Building Sections D, E, & F	M-0G042	4
1.2-23	Equipment Location Control Building & Communication Corridor Plan Elevation 1974'-0" & 1984'-0"	M-0G050	8
1.2-24	Equipment Location Control Diesel Generator Buildings & Communication Corridor Plan Elevation 2000'-0" & 2016'-0"	M-0G051	6
1.2-25	Equipment Location Control Diesel Generator Buildings & Communication Corridor Plan Elevation 2032'-0" & 2047'-6"	M-0G052	7
1.2-26	Equipment Location Control Diesel Generator Buildings & Corridor Plan Elevation 2061'-6", 2066'-0" & 2073'-6" & Section D	M-0G053	7
1.2-27	Equipment Location Control Diesel Generator Building & Communication Corridor Section A	M-0G054	5
1.2-28	Equipment Location Control Diesel Generator Building Sections B & C	M-0G055	4
1.2-29	Equipment Location Turbine Building Condenser Pit Plan Elevation 1983'-0"	M-0G060	5
1.2-30	Equipment Location Turbine Building Ground Floor Plan Elevation 2000'-0"	M-0G061	5
1.2-31	Equipment Location Turbine Building Partial Plan Elevation 2015'-4"	M-0G062	4
1.2-32	Equipment Location Turbine Building Mezzanine Floor Plan Elevation 2033'-0"	M-0G063	7

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<u>Number</u>	<u>Title</u>	<u>Drawing Number</u>	<u>Rev.</u>
1.2-33	Equipment Location Turbine Building Operating Floor Plan Elevation 2065'-0"	M-OG064	4
1.2-34	Equipment Location Turbine Building Section A	M-OG065	7
1.2-35	Equipment Location Turbine Building Section B	M-OG066	5
1.2-36	Equipment Location Turbine Building Section C	M-OG067	6
1.2-37	Equipment Location Turbine Building Section D	M-OG068	5
1.2-38	Equipment Location Turbine Building Section E	M-OG069	4
1.2-39	Equipment Location Turbine Building Section F	M-OG070	4
1.2-40	Equipment Location Turbine Building Section G	M-OG071	6
1.2-41	Equipment Location Turbine Building Section H	M-OG072	4
1.2-42	Turbine Component Laydown Area	M-OG073	0

TABLE 1.7-1

## ELECTRICAL, INSTRUMENTATION, AND CONTROL DRAWINGS

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-01NB01	12	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV SINGLE LN	Apr 84
E-01NB02	12	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV SINGLE LN	Apr 84
E-01NE01	8	STBY GENERATOR CLASS IE 4.16 KV S/L	May 83
E-01NG01	11	CLASS IE LOW VOLTAGE 480V SYS S/L M & R	May 84
E-01NG02	13	CLASS IE LOW VOLTAGE 480V SYS S/L M & R	May 84
E-01NK01	15	CLASS IE 125 DC SYS S/L M&R	Apr 84
E-01NK02	17	CLASS IE 125 DC SYS S/L M&R	Apr 84
E-03NN01	12	INSTRUMENT AC POWER 115V CLASS IE	Jan 84
E-01PA01	9	HIGH MED VOLT SYS 13.8 KV M & R	Jul 83
E-01PA02	10	HIGH MED VOLT SYS 13.8 KV M & K	Jul 83
E-01PG06	10	NON-CLASS IE LOW VOLTAGE SYS 480V S/L M & R	May 83
E-01PN01	0	NON-CLASS IE INSTRUMENT AC POWER	Aug 77
E-03PN01	11	NON-CLASS IE INSTRUMENT AC SCHEMATIC	Apr 84
E-02KJ01	6	STANDBY GENERATOR SYSTEM	Apr 84
E-03AB01	10	MAINSTEAM SUPPLY VLV TO TURB DR AUX FEEDW PUMP	Feb 84
E-03AB03A	5	MAIN STEAM LINE DRAIN VLV	Jul 82
E-03AB03B	5	MAIN STEAM LINE DRAIN VLV	Jun 83
E-03AB06A	0	MAIN STM ATMOS VENT VLV POS INT LIGHT	Jul 82
E-03AB06B	3	MAIN STM ATMOS VENT VLV POS INT LIGHT	Jun 83
E-03AB08	3	MN STM COOLDOWN VLV	Jun 80
E-03AB11A	4	SCHEMAT DIAG MAIN DUMP VLVS	Nov 81
E-03AB11B	2	SCHEMAT DIAG MAIN STM DUMP VLV	Jun 80
E-03AB11C	2	SCHEMAT DIAG MAIN STM DUMP VLV	Jun 80
E-03AB17	2	MN STM BYPASS VAL TO AUX FEEDWTR PUMP TURB	May 79
E-03AB23A	4	SCHEMAT DIAG MAIN STM BYPASS VLVS	Nov 81
E-03AB23B	6	SCHEMAT DIAG MAIN STM BYPASS VLVS	Apr 84
E-03AB26	7	SCHEMATIC DIAGRAM MAIN STEAM ISO VALVES	Feb 84

TABLE 1.7-1 (Sheet 2)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03AB27	8	SCHEMATIC DIAGRAM MAIN STEAM ISO VALVES	Feb 84
E-03AB28	10	SCHEMATIC DIAGRAM MAIN STEAM ISO VALVES	Apr 84
E-03AB29	10	SCHEMATIC DIAGRAM MAIN STEAM ISO VALVES	Apr 84
E-03AB30	6	SCHEMATIC DIAGRAM MAIN STEAM FEEDWATER ISO VLV	Feb 84
E-03AB31	3	STEAM DUMP CONTROL & BYPASS INDICATION	Apr 83
E-03AC38	11	MAIN TURB SYS WITH NSSS INTERFACE	May 84
E-03AE05	4	SCH DIAG STEAM GENER AMMONIA & HYDRAZINE INJECT	Aug 83
E-03AE06	4	SCH DIAG MAIN FEEDWTR CONTR VALVES	Jul 83
E-03AE07	3	SCH DIAG MAIN FEEDWTR CONTR VALVES	Mar 80
E-03AE14	7	FEEDWATER ISO VALVE SCHEMATIC DIAGRAM	Feb 84
E-03AE15	7	SCHEMATIC DIAGRAM FEEDWATER ISOMETRIC	Feb 84
E-03AE16	9	SCHEMATIC DIAGRAM FEEDWATER ISO VALVES	Feb 84
E-03AE17	9	SCHEMATIC DIAGRAM FEEDWATER ISO VALVES	Feb 84
E-03AE18	2	BYPASS FEEDWATER CONTROL VALVES	Mar 81
E-03AL00	14	AUX FEEDWATER SCHEMATIC INDEX SHEET	Apr 84
E-03AL01A	5	AUX FEEDWATER SYSTEM MOTOR DRIVEN PUMP	Feb 84
E-03AL01B	5	AUX FEEDWATER SYSTEM MOTOR DRIVEN PUMP	Feb 84
E-03AL02A	0	AUX FEEDWATER SYSTEM MOTOR OPERATED VALVES	Jul 82
E-03AL02B	1	AUX FEEDWATER SYSTEM MOTOR OPERATED VALVES	Jun 83
E-03AL03A	3	AUX FEEDWATER PUMPS DISCH CONTR MOVs	Nov 83
E-03AL03B	3	AUX FEEDWATER PUMPS DISCH CONTR MOVs	Nov 83
E-03AL04A	0	SUPPLY FROM ESS SERV WTR SYS	Jul 82
E-03AL04B	2	SUPPLY FROM ESS SERV WTR SYS	Apr 84
E-03AL05A	0	AUX FDWR PUMPS DISCH CONTR AIR OP VALVES	Jul 82
E-03AL05B	1	AUX FDWR PUMPS DISCH CONTR AIR OP VALVES	Mar 83
E-03AL06	4	SCHEMATIC DIAGRAM INSTRUMENTATION & ALARMS	Nov 80

## SNUPPS - C

TABLE 1.7-1 (Sheet 3)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03AL07A	2	SCHEMATIC DIAGRAM INSTRUMENTATION & ALARMS	Jun 83
E-03AL07B	1	SCHEMATIC DIAGRAM INSTRUMENTATION & ALARMS	Mar 83
E-03AL08	4	SCHEMATIC DIAGRAM INSTRUMENTATION & ALARMS	Jun 80
E-03AL09	2	SCHEMATIC DIAGRAM MISCELLANEOUS CIRCUITS	Mar 83
E-03AL10	0	SCHEMATIC DIAGRAM AUX FDWTR SYS	Sept 81
E-03AP04	0	SCHEMATIC DIAGRAM CONDENSATE SYSTEM	Oct 82
E-03BB03	7	S.D. RCP THERM BARRIER CCW ISO VLVS	Dec 83
E-03BB04	3	S.D. SEAL WTR INJECT ISO VALVE	Jul 81
E-03BB11	5	S.D. PRZR RELIEF TANK VENT TO WPS ISO VLV	Jun 83
E-03BB12A	8	S.D. RHR LOOP INLET ISO VALVE	May 84
E-03BB12B	7	S.D. RHR LOOP INLET ISO VALVE	May 84
E-03BB13	5	S.D. PRZR RELIEF TK VENT TO WPRS ISO VLV	Jun 83
E-03BB27	5	SCH DIAG REACTOR COOLANT PUMP MOTORS	May 84
E-03BB28	8	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Dec 83
E-03BB30	2	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Dec 83
E-03BB31	3	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Dec 83
E-03BB33	3	SCHEMATIC DIAGRAM	Jan 84
E-03BB34	2	SCHEMATIC DIAGRAM	Jul 82
E-03BB35	4	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Jun 83
E-03BB36	2	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Jul 82
E-03BB37	3	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Jul 83
E-03BB38	5	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Dec 83
E-03BB39	8	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Apr 84
E-03BB40	10	SCHEMATIC DIAGRAM REACTOR COOLANT PUMP	Apr 84
E-03BG01	12	CENTRIFUGAL CHARGING PUMPS SCHEMATIC DIAGRAM	Dec 83
E-03BG11A	4	CHARGING PUMP TO REACTOR COOLANT & MINIFLOW ISO	Nov 83
E-03BG11B	2	CHARGING PUMP TO REACTOR COOLANT & MINIFLOW ISO	May 83



TABLE 1.7-1 (Sheet 4)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03BG12	9	VOLUME CONT TANK OUTLET ISO VLVS SCH DIAG	May 84
E-03BG12A	2	VOLUME CONTROL TANK OUTLET ISO VALVE	May 84
E-03BG13	6	BORIC ACID FILTER TO CHG PUMP VLV	Mar 83
E-03BG17	7	LETDOWN LINE ISO VLV SCH DIAG	Nov 83
E-03BG24	4	REACTOR COOLANT PUMP SEAL WATER ISO VLV SCH DIAG	Jul 81
E-23BG27	0	BORIC ACID TRANSFER PUMPS	Jun 84
E-03BG36	5	LETDOWN CONTAINMENT ISO VLV SCH DIAG	Nov 83
E-03BG38	4	REACTOR COOLANT PUMP SEAL WATER ISO VLV SCH DIAG	Jul 81
E-03BG48	5	EXCESS LETDOWN LINE ISO VLV SCH DIAG	Dec 83
E-03BG52	3	RCP SEAL INJECTION FLOW THROTTLING VALVES	May 83
E-03BL01	5	PRZR RELIEF TANK TO REACTOR MAKEUP WTR SUPPLY	Jun 83
E-03BM01	4	STEAM GENERATOR BLOWDOWN SCHEMATIC	May 83
E-03BM02	4	STEAM GENERATOR BLOWDOWN SCHEMATIC	May 83
E-03BM03	5	STEAM GENERATOR BLOWDOWN SCHEMATIC	May 83
E-03BM06A	4	STEAM GENERATOR BLOWDOWN SCHEMATIC	May 83
E-03BM06B	3	STEAM GENERATOR BLOWDOWN SCHEMATIC	May 81
E-03BM06C	4	STEAM GENERATOR BLOWDOWN SCHEMATIC	Jul 83
E-03BN01	7	REFUELG WTR STRG TK TO CHARGE PUMP MOV	Mar 83
E-03BN02	6	REFUELG WTR STRG TK TO SFPCS PUMP MOV	Jul 83
E-03BN03	7	REFUELG WTR STRG TK RHR PUMP MOV	Apr 84
E-03BN04	4	RWST TO CONTMET SPRAY PUMP MOV	Jun 81
E-03BN06	5	RWST TO SAFETY INJECT PUMP VLV	Sept 82
E-03BN08	4	SIS PUMP MINIFLW ISO VLV	Jul 82
E-03BN10	1	SCHEMATIC DIAGRAM	Jul 83
E-03EC01	7	FUEL POOL COOLING PUMPS SCHEMATIC DIAGRAM	Jun 83
E-03EC02	2	SCHEM DIAG CCW DISCHARGE VLVS FROM FUEL POOL CLG	Jun 81
E-03EF01	4	ESW TO AIR COMP ISOL VALVES SCHEMATIC DIAGRAM	May 82

TABLE 1.7-1 (Sheet 5)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03EF02	4	SCHEMATIC DIAG ESW TO SW SYS ISOL VLVS	Mar 84
E-03EF03	4	SCHEMATIC DIAG ESW TO SW SYS ISOL VLVS	Mar 84
E-03EF04	3	SCHEM DIAG ESW FROM COMPONENT COOLG WTR HEAT EXC	May 82
E-03EF05	3	SCHEMATIC DIAGRAM ESW TO COMPONENT COOLG WTR HEA	May 82
E-03EF06	4	SCHEMATIC DIAG ESW TO ULTIM HEAT SINK ISOL VALVE	Mar 84
E-03EF07	3	ESWS CONTAIN COOLER VALVE	May 82
E-03EF08	3	SCHEM DIAG ESW FROM CONTAIN- MENT AIR COOLERS ISOL	May 82
E-03EF09	3	SCHEM DIAG ESW TO/FROM CONTAIN AIR COOL ISOL VLV	May 82
E-03EF10	3	SCHEM DIAG ESW FROM CONTAIN AIR COOLERS ISOL VLV	May 82
E-03EF12	3	SCHEMATIC DIAGRAM ESWS	Sept 83
E-03EG01A	14	CCW PUMPS A & B	May 84
E-03EG01B	13	CCW PUMPS C & D	May 84
E-03EG01C	4	SCHEMATIC DIAGRAM COMPONENT COOLING WATER	Jan 84
E-03EG01D	2	SCHEMATIC DIAGRAM	Jan 84
E-03EG03	6	CCW SURGE TANK VENT	Jan 84
E-03EG04	3	ESW MAKEUP TO CCW SYS	Jul 83
E-03EG05A	3	CCWS SUPPLY RETURN FROM NUCLEAR AUX COMPONENT	Jul 83
E-03EG05B	4	CCWS SUPPLY TO NUCLEAR AUX COMPONENT	Apr 82
E-23EG06	0	CCW TO CONTAINMENT ISO VALVES	Mar 84
E-23EG07	0	CCW SUPPLY TO RHR HEAT EXCHANGER	Mar 84
E-03EG08	7	CCW SUPPLY RETURN FROM RADWASTE BLDG	Mar 84
E-03EG09	6	CCW CONTAINMENT ISO VALVES	Oct 83
E-03EG10	7	CONTAINMENT ISO VALVE RETURN FROM THERM BAR COOL	May 84
E-03EG16	8	CCW HEAT EXCHANGER OUTLET TEMP CONT VALVES	Jul 83
E-03EG17	5	SCHEMATIC DIAGRAM ISOMETRIC VALVES	Oct 83
E-03EG18	4	SCHEMATIC DIAGRAM ISOMETRIC VALVES	Oct 83
E-03EG19	4	SCHEMATIC DIAGRAM ISOMETRIC VALVES	Jul 83
E-03EG20	3	SCHEMATIC DIAGRAM ISOMETRIC VALVES	Sept 83

TABLE 1.7-1 (Sheet 6)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03EJ01	6	RESIDUAL HEAT REMOVAL PUMPS 1 & 2 SCHEM DIAGRAM	Jan 84
E-03EJ02	6	NUCLEAR SAMPLE LINE VALVES SCHEMATIC DIAGRAM	Apr 83
E-03EJ03	5	RHR CROSS CONNECT VALVES SCHEMATIC DIAGRAM	Aug 83
E-03EJ04A	6	RHR PUMP TO CHG PUMP VLV SCH DIA	May 84
E-03EJ04B	6	RHR PUMP TO CHARGING PUMP VALVE	Apr 83
E-03EJ05A	7	RHR PUMP TO CHG PUMP VLV SCH DIAG	May 84
E-03EJ05B	7	RHR LOOP INLET ISO VALVE	May 84
E-03EJ06A	7	RHR PUMP TO CHG PUMP VLV SCH DIAG	Aug 83
E-03EJ06B	7	SUMP TO RESIDUAL HEAT REMOVAL PUMP	Aug 83
E-03EJ07	4	RESIDUAL HEAT REMOV HOT & COLD LEG TEST LINE	May 82
E-03EJ08	8	RESIDUAL HEAT REMOV MINI FLOW VALVES	Feb 84
E-03EJ09A	6	RHR COLD & HOT LEG VALVES	Aug 83
E-03EJ09B	5	RHR COLD & HOT LEG VALVES	Feb 83
E-03EJ13	5	SCHEMATIC DIAGRAM	May 84
E-03EJ14	1	SCHEMATIC DIAGRAM	Jan 84
E-03EM01	5	HIGH HEAD SAFETY INJECTION SCHEMATIC	Dec 83
E-03EM02	3	BORON INJ TANK DISCH & INLET ISOLA VALVES	Sept 82
E-03EM03	6	SIS MINI FLOW ISOLATION VALVES	Nov 83
E-03EM04	6	SAFETY INJ & CHARGING PUMPS HOT & COLD LEG TEST	Jan 84
E-03EM04A	1	SCHEMATIC DIAGRAM CHARGING PUMPS COLD LEG	Jan 84
E-03EM06	6	BORON INJ RECIRC PUMP 1 & 2	Jan 84
E-03EM07A	2	SCH DIAG BORON INJECT TANK HEAT	Jul 82
E-03EM07B	4	SCH DIAG BORON INJECT TANK HEAT	Jul 82
E-03EM08	5	SUCTION HEADER & SAFETY INJ CROSS CONNECTION	Aug 83
E-03EM09	5	SAFETY INJECTION PUMP SUCTION VALVES	Aug 83
E-03EM10	3	BORON INJ TO SURGE TANK & RECIRCULATION PUMP	Jan 84
E-03EM11	6	SAFETY INJECTION PUMP TO HOT LEG MOV	Aug 83
E-03EM12	4	ACCUMULATOR FILL LINE & TEST HEADER LINE	Jan 84

TABLE 1.7-1 (Sheet 7)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03EM13A	4	SAFETY INJ PUMP TO HOT & COLD LEGS	Aug 83
E-03EM13B	4	SAFETY INJ PUMP TO HOT & COLD LEGS	May 84
E-03EM17	3	SCHEMATIC DIAGRAM	Aug 83
E-03EN01	11	CONTAINMENT SPRAY SYS SCHEMAT DIAG	May 84
E-03EN02	6	CONTAINMENT SPRAY PUMP SUCT SCHEMATIC DIAGRAM	Apr 83
E-03EN03	3	CONT SPRAY P.P ISOLATION SCH DIAG	Apr 80
E-03EN04	5	CONT SPRAY PP ISO DIAG	Apr 80
E-03EP01	4	ACCUMULATOR N2 SUPP ISO VLV	Jan 83
E-03EP02A	6	ACCUMULATOR ISO VLV	Jan 83
E-03EP02B	4	ACCUMULATOR ISO VLV	Apr 83
E-03EP07	6	SD ACCUMULATOR ISO VLV	Apr 83
E-03EP09	3	SAFETY DRY ACCUMULATOR VENT VLVS	Dec 83
E-23FC21	0	SCH DIAG SGFP	Mar 84
E-23FC23	0	SCH DIAG AUX WATER TURB TRIP & THROTTLE VALVE	Mar 84
E-23FC24	0	SCH DIAG AUX WATER TURB TRIP & THROTTLE VALVE	Mar 84
E-23FC25	0	SCH DIAG AUX WATER TURB TRIP & THROTTLE VALVE	Mar 84
E-23FC26	1	SCH DIAG AUX WATER TURB TRIP & THROTTLE VALVE	Mar 84
E-23FC27	0	SGFPT ISOLATION INPUT TO ESFAS	Mar 84
E-03GE18	5	COND AIR REMOVAL FILTER SYS DAMPERS	Sept 82
E-03GF01	4	AUX FDWTR PUMP RM COOLS FANS	Oct 82
E-03GF07	5	MAIN STREAM ENCL BLDG EXHAUST FANS & DAMPERS	Jun 80
E-03GF08	6	TENDON GALLERY SUPPLY/RETURN ISOL DAMPERS	Feb 84
E-03GF13	6	MAIN STEAM ENCLOSURE BLDG MISC DAMPERS	Feb 84
E-03GF14	2	MISC MOTOR SPACE HEATERS	Apr 83
E-03GG01	8	EMERGING EXHAUST FAN & DIS- CHARGE DAMPERS	Nov 83
E-03GG02	5	SPENT FUEL PUMP ROOM COOLERS	Aug 83
E-03GG03	8	EMERGENCY EXHAUST HTG COILS	Dec 83
E-03GG08	4	FUEL BLDG ISOL DAMPERS OUTSIDE AIR SUPPLY	Jan 82
E-03GG09	5	FUEL BLDG EXHAUST TO EMERG FILT ADSORB UNITS ISO	Jan 82

## SNUPPS - C

TABLE 1.7-1 (Sheet 8)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03GG10	3	EMERG FILTER ADSORB UNITS AUX BLDG INTAKE ISOL	Jan 82
E-03GG11	4	SPENT FUEL POOL DISCHARGE TO AUX BLDG DAMPER	Jan 82
E-03GG12	7	FUEL BLDG INSTRUMENTATION	Jun 83
E-03GG15	3	EMERG EXHAUST CROSS CONNECTION DAMPER	Jan 82
E-03GG17	10	SPENT FUEL POOL NORMAL/EMRGNCY EXHAUST RADIOACT	Dec 83
E-03GG18	2	MANUAL INITIATION FUEL BLDG ISOL SIGNAL	Dec 79
E-03GK01A	5	SCHEMATIC DIAG CONTROL ROOM FAN DAMPER	Feb 84
E-03GK01B	2	CONTROL ROOM HVAC SYSTEM	Feb 84
E-03GK02A	3	CONTROL ROOM A/C UNIT FAN	Nov 83
E-23GK02B	0	CONTROL ROOM A/C UNIT FAN	Mar 84
E-03GK02C	5	CONTROL ROOM A/C UNIT SUP	Feb 84
E-03GK03A	2	FIRE ISOLATION DAMPERS	Sept 80
E-03GK03B	1	MISCELLANEOUS DAMPERS	Sept 80
E-03GK07	3	MISCELLANEOUS DAMPERS	Sept 80
E-03GK09A	4	ISO DAMPERS	Nov 83
E-03GK09B	1	ISO DAMPERS	Sept 79
E-03GK10A	2	CONTROL ROOM PRESSURIZATION FAN & SUP DAMPERS	Feb 84
E-03GK10B	0	CONTROL ROOM PRESSURIZATION FAN & SUP DAMPERS	July 81
E-03GK11	7	SCH DIAG CONTROL ROOM	Apr 84
E-03GK13	9	CLASS 1E ELE A/C UNIT	Mar 84
E-03GK13A	2	SCHEMATIC DIAGRAM	Mar 84
E-03GK17	6	SCH DIAGRAM ISO DAMPERS	Feb 84
E-03GK19	3	SCH DIAGRAM AIR RETURN CONT RM ASB UNITS	Sept 80
E-03GK23	4	SCH DIAG FIRE ISO DAMPERS	Oct 82
E-03GK25	5	SCH DIAGRAM MISCELLANEOUS ALARMS	Nov 83
E-03GK27	3	CHASE & TK AREA ISO DAMPERS	Sept 79
E-03GK28	5	CONTROL ROOM HVAC SYSTEM	Apr 84
E-03GK30A	2	ISOLATION DAMPERS	Jul 81
E-03GK30B	0	ISOLATION DAMPERS	Sept 79
E-03GK31	4	FIRE SIGN ISOMETRIC	Apr 84
E-03GL02	4	AUX BLDG SUPPLY AIR UNIT SUPPLY DAMPERS	Jan 80
E-03GL05	6	PUMP ROOM COOLERS	Mar 83
E-03GL06	6	PUMP ROOM COOLERS	Jun 83
E-03GL12	6	PENETRATION ROOM COOLERS	Mar 83
E-03GL12A	0	PENETRATION ROOM COOLER	Mar 83
E-03GL14	6	SCH DIAGRAM ISOL DAMPERS	Jun 83

## SNUPPS - C

TABLE 1.7-1 (Sheet 9)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03GL14A	1	SCHEMATIC DIAGRAM	Feb 84
E-03GL16	5	FUEL BLDG NORMAL EXHAUST ISOL DAMPERS	Jul 80
E-03GL27	4	CCW PUMP ROOM EXHAUST DAMP	Apr 84
E-03GL30	4	ISOLATION DAMPERS	Jul 80
E-03GM01	10	DIESEL GENERATOR VENTILATION SUPPLY FANS SCHEM	Feb 84
E-03GM02	7	DIESEL GENERATOR SUPPLY DAMPER CONTROL & MISC AL	Aug 83
E-03GM04	6	DIESEL GENERATOR BLDG EXHAUST DAMPERS SCHEMATIC	Mar 83
E-03GM04A	0	SCHEMATIC DIAGRAM	Mar 83
E-03GN01	9	HYDROGEN MIXING FANS	Sept 83
E-23GN02	0	CONTAINMENT COOLER FANS	Jun 84
E-23GN02A	0	SCHEMATIC DIAGRAM MISC FAN SPACE HEATER	Jun 84
E-03GN03	7	CRDM COOLING FANS & DISCHARGE DAMPERS	Sept 83
E-03GN09	7	MISC FAN SPACE HTRS	Jun 84
E-03GS01A	2	SCHEMATIC DIAGRAM	May 83
E-03GS01B	2	SCHEMATIC DIAGRAM	May 83
E-03GS02A	1	SCHEMATIC DIAGRAM	May 83
E-03GS02B	2	SCHEMATIC DIAGRAM	May 83
E-03GS03	3	SCHEMATIC DIAG	May 81
E-03GS04	3	SCHEMATIC DIAG	May 81
E-03GS05	3	SCHEMATIC DIAG	Apr 84
E-03GS06	4	SCHEMATIC DIAG	Mar 83
E-03GS07	3	SCHEMATIC DIAG	May 81
E-03GS10	3	SCHEMATIC DIAGRAM	Apr 84
E-03GS11	3	SCHEMATIC DIAGRAM	Apr 84
E-03GS12	2	SCHEMATIC DIAGRAM	May 83
E-03GS13	1	SCHEMATIC DIAGRAM	Apr 82
E-03GS14	2	SCHEMATIC DIAGRAM	Jul 83
E-03GT03	3	CONTAINMENT PURGE SYSTEM SCHEMATIC	Aug 82
E-03GT04	3	CONTAINMENT PURGE SYSTEM SCHEMATIC	Aug 82
E-03GT05	6	MINI PURGE FAN SCHEMATIC	May 83
E-03GT06	4	SCH DIAGRAM CON PUR SUP EX DM	Oct 81
E-03GT13	3	CTMT PURGE EXHAUST SMPL VLVS	May 83
E-03HB02	7	REACTOR COOLANT DRAIN TK PUMP DISC & VENT ISOL VALVE	Jul 83
E-03HB03	5	REACTOR COOLANT DRAIN TK VENT ISOL VLV	May 83
E-03HB19	4	REACTOR COOLANT DRAIN TK PUMP DISCH VLV	Mar 84
E-03JE01	7	EMERGENCY FUEL OIL TRANSFER PUMPS	Jul 83

## SNUPPS - C

TABLE 1.7-1 (Sheet 10)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03JE02	7	MISC CIRCUITS	Apr 82
E-03JE03	5	FIRE SIGNAL ISOL RELAY	Apr 82
E-03KA01A	9	SCH DIA AIR COMPR ISOL CIRCUIT BREAKER	Feb 84
E-03KA02	5	SCH DIA COMPRESSED AIR CONTAIN- MENT ISO VLV	Mar 84
E-03KA04	4	SCH DIA HYDROGEN CONTR SYST MAKE-UP AIR VALVE	Aug 82
E-03KC08	4	FIRE PROTECTION SYSTEM ISO VLV	Mar 84
E-03KJ01A	10	DIESEL GEN KKJ01A ENG CON SCH	Apr 84
E-03KJ01B	3	DIESEL GEN KKJ01A ENG CON SCH	Apr 81
E-03KJ02	11	S.D. DIESEL GEN CONTROLS	Apr 84
E-03KJ03A	11	DG KKJ01B ENG CON SCH	Apr 84
E-03KJ03B	5	DG KKJ01B ENG CON SCH	Apr 84
E-03KJ04	9	DG KKJ01B ANNUN MISC CKTS SCH DIAG	Apr 84
E-03KJ05	5	JKT COOL & LUBE OIL LEVEL CON	Apr 84
E-23KJ06	0	DIESEL GEN KKJ01A GOV CON	May 84
E-23KJ07	0	DIESEL GEN KKJ01B GOV CON	May 84
E-03KJ08	2	STANDBY JKT COOL HTR	Apr 81
E-03KJ09	1	STANDBY JKT COOL CIRC PMP	Jan 80
E-03KJ10	3	STANDBY LUBE OIL HTR	Aug 83
E-03KJ11	2	SCH DIAGRAM LUBE OIL FILTER	Nov 83
E-03KJ12	1	SCH DIAG GEN SPACE HEATER	Jan 80
E-03KJ13	3	ROCKER ARM PRE LUBE PUMP	Nov 83
E-03KJ16	3	DIESEL GEN RTD'S THERMOCOUPLES	Aug 83
E-03KJ20	3	STANDBY D/G STARTING AIR SYSTEM	Apr 84
E-03LF07	3	SUMP DISCHARGE VALVES	Dec 80
E-03LF08	2	SUMP PUMP DISCHARGE ISOLATION VALVE	Jun 80
E-03LF09A	4	REACTOR BLDG SUMP PUMP DISCHARGE ISO VLVS	Jun 80
E-03LF09B	5	REACTOR BLDG SUMP PUMP DISCHARGE ISO VALVES	Dec 80
E-03NB01	10	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV 3/L METER	Apr 84
E-03NB02	12	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV 3/L METER	Nov 83
E-03NB03	14	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV 3/L METER	Apr 84
E-03NB04	10	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV 3/L METER	Apr 84
E-03NB05	13	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV 3/L METER	Nov 83
E-03NB06	13	LOWER MED VOLTAGE SYS CLASS IE 4.16 KV 3/L METER	Nov 83
E-03NB10	11	SCHEMAT DIAGRAM FEEDER BRKR 13.8 KV	Nov 83

SNUPPS - C

TABLE 1.7-1 (Sheet 11)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03NB11	8	SCHEMAT DIAGRAM FEEDER BRKR 13.8 KV	Jun 83
E-03NB12	11	SCHEMAT DIAGRAM FEEDER BRKR 13.8 KV	Apr 84
E-03NB13	11	SCHEMAT DIAGRAM FEEDER BRKR 13.8 KV	Apr 84
E-03NB14	11	SCHEMAT DIAGRAM FEEDER BRKR 13.8 KV	Apr 84
E-03NB15	11	SCHEMAT DIAGRAM FEEDER BRKR 13.8 KV	Apr 84
E-23NE01	1	STANDBY GEN SYSTEM 3/L M&R	Jul 84
E-23NE02	1	STANDBY GEN SYSTEM 3/L M&R	Jul 84
E-23NE10	2	SCH DIAG 4.16 KV DG NE01 FEEDER BREAKER 152NB0111	May 84
E-23NE11	2	SCH DIAG 4.16 KV DG NE01 FEEDER BRKR 152NB0211	May 84
E-23NE12	0	STANDBY GEN SYS	May 84
E-23NE13	0	STANDBY GEN SYS	May 84
E-03NF01	4	LOAD SHEDDER AND LOAD SEQUENCER	May 84
E-03NG01	9	CLASS IE LOW VOLTAGE SYSTEM 3/L M&R	May 83
E-03NG10	6	CLASS IE 4.16 KV LC XFMR FDR BKRS	Apr 83
E-03NG10A	1	SCHEMATIC DIAGRAM	Apr 84
E-03NG11	8	BREAKER CLASS IE LOW VO	Feb 84
E-03NG11A	3	SCHEMATIC DIAGRAM	Apr 84
E-03NG11B	2	SCHEMATIC DIAGRAM 480 V LC MAIN FEEDER	Apr 84
E-03NG12	9	SCHEMATIC DIAG 480 V LC TIE BREAKER MISC COMP INPU	Feb 84
E-03NK10	10	125 VDC & 250 VDC POW SYS SCHEMATICS	Apr 84
E-03NK11	5	125 VDC CLASS IE POWER SYSTEM	Nov 83
E-03NN01	12	CLASS IE INSTRUMENT AC SCHEMATIC	Jan 84
E-03PA02	12	HIGH MED VOLT SYS 13.8 KV 3/L M&R	Jun 84
E-03PA05	11	HIGH MED VOLT SYS MED 3/L M&R	Jun 84
E-03PG05	8	NON-CLASS IE L.V. SYSTEM 3/L M&R	May 83
E-03PG12	6	NON-CLASS IE L.V. SYSTEM SCHEMATIC	Apr 83
E-03PG12A	2	SCHEMATIC DIAGRAM	May 84
E-03PG15B	4	480 V & LC TIE BKR SCHEMATIC	Mar 83
E-03PJ11	4	250 VDC POW SYS SCHEMAT	Jun 82
E-03PN01	11	NON CLASS IE INST AC LINE DIAG	Apr 84
E-03QB01	2	STANDBY LIGHTING SYSTEM PWR FDRS	Apr 83



TABLE 1.7-1 (Sheet 12)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
E-03QB02	3	STANDBY LIGHTING SYSTEM PWR FDRS	Jul 83
E-03SB12A	3	REACTOR TRIP & SAFETY INJEC SWITCHES	Mar 84
E-03SB12B	4	REACTOR TRIP AND SAFETY INJECT SWITCHES	Jun 83
E-03SB13	2	SCH DIAG SPRAY ACTUATION & CTMT ISO SWITCHES	Feb 79
E-03SB14	1	SCH DIAG SWITCH DEVEL	Dec 77
E-03SB15	2	CONTROL BOARD SWITCHES	Dec 81
E-03SB17	2	SAF INJ (RWST) RESET SWITCH/ SWITCHOVER STATUS INDICATOR	Jul 82
E-23SB19	0	SCHEMATIC DIAGRAM	May 84
E-03SJ01	3	NUC SAMP SYS SCHEMATIC CTMT ISO VLVS	Jul 83
E-03SJ02	3	NUC SAMP SYS SCHEMAT CTMT ISO VLVS	Jul 83
E-03SJ05	2	NUCLEAR SAMPLE SYSTEM	May 81
E-03SJ06	1	NUCLEAR SAMPLE SYSTEM	Jul 83
E-03SJ07	3	NUCLEAR SAMPLE SYSTEM	Aug 83
E-03SJ09	3	SCHEMATIC DIAGRAM	Mar 84
E-03SJ11	6	SCHEMATIC DIAGRAM	Mar 84
E-OR0223	3	RACEWAY PLAN - STATION SERVICE AND STARTUP XFMR AREA	Jul 83
E-OR0224	3	RACEWAY PLAN - ESF TRANSFORMER AREA	Dec 82
E-2R3211	0	RACEWAY PLAN - CONTROL BUILDING AREA - 1 EL. 1984'-9"	Oct 83
E-2R3321	0	RACEWAY PLAN - COMMUNICATION CORRIDOR AREA - 2 EL. 2000'-0"	June 84
E-OR3221	8	RACEWAY PLAN - COMMUNICATION CORRIDOR AREA - 2 EL. 1974'-0" AND EL. 1984'-0"	Aug 82
E-2R4321	1	RACEWAY PLAN - TURBINE BUILDING AREA - 2 EL. 2000'-0"	Mar 84
E-OR4331	16	RACEWAY PLAN - TURBINE BUILDING AREA - 3 EL. 2000'-0"	Mar 84
J-020101	4	SYMBOLS & LEGEND FOR LOGIC DIAGRAMS	Aug 81
J-02AB01	5	CONTROL LOGIC DIAGRAM	May 84
J-02AB02	2	MN STM ATMOS VENT VLVS INDICATING LIGHTS	May 83
J-02AB02A	0	CONTROL LOGIC DIAGRAM	May 83
J-02AB02B	0	CONTROL LOGIC DIAGRAM	May 83

TABLE 1.7-1 (Sheet 13)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J-02AB03	3	MAIN STEAM SUPPLY TD AUX FEED- WATER PUMP	May 83
J-02AB04	3	MAIN STEAM LINE DRAIN VALVES	Sept 83
J-02AB10	2	MAIN STEAM SYSTEM BYPASS VALVE AUX FDWTR PUMP	Mar 79
J-02AB12	2	MAIN STEAM STOP VALVE BYPASS VALVE	Apr 80
J-02AC06	A	MAIN TURBINE TRIP LOGIC LEGENDS & NOTES	Jan 77
J-02AC07	C	MAIN TURBINE TRIP BLOCK DIAGRAM	Mar 83
J-02AC08	D	MAIN TURBINE TRIP LOGIC DIAGRAM	Mar 83
J-02AC09	0	CONTROL LOGIC DIAGRAM	Oct 83
J-02AE08	3	STEAM GENERATOR AMMONIA & HYDRAZINE INJEC VALVE	Jan 79
J-02AL01	5	MOTOR DRIVEN AUX FEEDWATER PUMPS	Aug 83
J-02AL01A	1	CONTROL LOGIC DIAGRAM AUX FW SYSTEM	Aug 83
J-02AL01B	0	CONTROL LOGIC DIAGRAM AUX FW SYSTEM	Nov 82
J-02AL02	3	AUX FDWTR SYS SUPPLY FROM COND STORAGE TANK	May 83
J-02AL02A	0	CONTROL LOGIC DIAGRAM	May 83
J-02AL03	5	AUX FEEDWATER PUMPS DISC CONTROL VALVES	May 83
J-02AL04	3	AUX FEEDWATER PUMPS SUPPLY ESWS SYSTEM	May 83
J-02AL04A	0	CONTROL LOGIC DIAGRAM	May 83
J-22AL05	0	AUX FEEDWATER SYS PUMPS SUCTION DISC PRESS ALAR	Jun 84
J-02AL06	0	CONTROL LOGIC DIAGRAM	Dec 80
J-02AL07	2	CONTROL LOGIC DIAGRAM	Oct 83
J-02BB01	4	REACTOR COOLANT SYSTEM RCP THERM BAR ISO VALVE	May 84
J-02BM01	2	STEAM GENERATOR BLOWDOWN LOGIC DIAG CTMNT VLVS	Jan 80
J-02BM04	2	STEAM GENERATOR BLOWDOWN ISOLATION VALVES	May 80
J-02BN01	3	BORON REFUELING WATER STORAGE RWST HEATER VALVE	Jun 82
J-02BN02	1	STEAM CONTROL VALVE	Apr 77
J-02EC01	3	FUEL POOL COOLING & CLEANUP SYSTEM	Dec 81
J-02EC02	1	FUEL POOL COOL CLEANUP SYS DIXC VLV HEAT EXCHAN	Jul 77
J-02EC05	3	SYSTEM ALARMS	Sept 82
J-02EF01A	0	ESWS MOTOR OPERATED ISOLATION VALVES	May 84

TABLE 1.7-1 (Sheet 14)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J-02EF01B	0	ESWS MOTOR OPERATED ISOLATION VALVES	May 84
J-02EF02	2	ESWS AIR COMPRESSORS ISOLATION VALVES	Sept 83
J-02EF03	1	ESWS CTMT AIR COOLERS ISOLATION VALVES	Apr 77
J-02EF04	1	ESWS CTMT AIR COOLERS ISOL VALVE BYPASS VALVE	Apr 77
J-02EF05	1	ESWS MOTOR OPERATED ISOLATION VALVES	Apr 77
J-02EF07	1	CONTROL LOGIC DIAGRAM STR SYS ESWS	Jan 79
J-02EG01A	5	COMPONENT COOLING WATER SYSTEM PUMPS	Jul 83
J-02EG01B	3	COMPONENT COOLING WATER SYSTEM PUMPS	Jan 83
J-02EG01C	5	CONTROL LOGIC DIAG COOL WTR SYSTEM	Mar 84
J-02EG02	4	CCWS DEMIN WATER MAKEUP CCW SURGE TANK	Jun 83
J-02EG04	0	CCW ESWS MAKE-UP SURGE TANK VENT	Jul 76
J-02EG05A	4	CCWS SUPPLY RETURN NUCLEAR AUX CMPNT SHEET A	Oct 83
J-02EG05B	2	CCWS SUPPLY RETURN NUCLEAR AUX CMPNT	Mar 78
J-02EG05C	0	CCWS SUP RTRN NUC AUX CMPNT VLV POSITION ALARM	Jul 76
J-02EG06	1	CCWS HX'S DISC TEMP ALARM RHR HX'S FLOW ALARM	Apr 77
J-02EG07	4	CCWS SUPPLY RHR HX'S	May 84
J-02EG08	5	CCWS SUPPLY RETURN RADWASTE BLDG	Sept 83
J-02EG09	4	CCWS CONTAINMENT ISOLATION VALVE	May 84
J-02EG10	5	CCWS INSIDE CTMT ISO VLV RTRN THRM BAR COOL CO	Oct 83
J-02EG11	5	CCWS HEAT EXCHANGER OUTLET TEMP CONT	May 84
J-02EG13A	2	CONTROL LOGIC DIAGRAM	May 84
J-02EG13B	2	CONTROL LOGIC DIAGRAM	Nov 83
J-02EG13C	1	CONTROL LOGIC DIAGRAM	May 84
J-02EG14	0	CONTROL LOGIC DIAGRAM	Dec 81
J-02EJ01	2	RESIDUAL HEAT RMVL SYS NUC SAMP SYS VALVE	Jan 79
J-02EJ03	3	RESIDUAL HEAT REMOVAL CONTROL LOGIC DIAGRAM	Nov 83
J-02EJ04	0	CONTROL LOGIC DIAGRAM	Jul 83

TABLE 1.7-1 (Sheet 15)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J-02EN01	4	CONTAINMENT SPRAY SYS CONTAIN SPRAY PUMPS	Feb 84
J-02EN02	1	CONT SPRAY SYSTEM CTMT RECIRC SUMP ISOL VALVE	Mar 77
J-02EN03	4	CONT SPRAY SYSTEM SPRAY ADD TANK ISOL VLVS	Mar 84
J-02EN04	4	CONT SPRAY SYSTEM SPRAY ADD TANK ALARMS	Mar 84
J-02EN05	1	CONT SPRAY SYSTEM CTMT SPRAY NOZZLES ISOL VLV	Mar 77
J-02FC18	0	AUX TURB AFP STEAMLIN WATER TRAP DRAIN	Jan 78
J-02FC19	2	CONTROL LOGIC DIAGRAM	Apr 84
J-02GE08	2	TURB BLDG HVAC LOGIC DIAG COND AIR REMVL FILTER	Jun 81
J-02GF03	2	MISC BLDG HVAC MAIN STM BLDG SUP EXH DAMPER	Jan 79
J-02GF06	4	MISC BLDG HVAC TENDON GALL SUP RETURN DAMPER	Dec 83
J-02GF06A	0	CONTROL LOGIC DIAGRAM MISC. BUILDING HVAC	Dec 83
J-02GF07	2	MISC BLDG HVAC FDWTR PUMP ROOM COOLER FANS	Mar 84
J-02GF09A	0	CONTROL LOGIC DIAGRAM MISC. BUILDING HVAC	Dec 83
J-02GF09B	0	CONTROL LOGIC DIAGRAM MISC. BUILDING HVAC	Dec 83
J-02GG04	1	FB HVAC ISOLATION DAMPERS	Feb 79
J-02GG05	3	FUEL BLDG SPENT FUEL POOL ROOM COOLERS	Apr 83
J-02GG06	1	FB HVAC FILTER UNITS INTAKE ISOL DAMPERS	Feb 79
J-02GG07	1	FB HVAC FILTER UNITS AUX BLDG ISOLATION DAMPERS	Feb 79
J-02GG08	1	FB HVAC MANUAL INITIATION OF FBIS	Jul 77
J-02GG09	1	FB HVAC SPENT FUEL POOL DISC	Feb 79
J-02GG10A	4	FB HVAC EMERGENCY EXHAUST FAN	Mar 83
J-02GG13	1	FB HVAC EMERGENCY EXHAUST CROSS CONNENC DAMPERS	Feb 79
J-02GG14	4	FB HVAC SPENT FUEL POOL EMERG EXHAUST RAD	May 80
J-02GG14A	0	CONTROL LOGIC DIAGRAM	May 80
J-02GG14B	0	CONTROL LOGIC DIAGRAM	May 80

TABLE 1.7-1 (Sheet 16)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J-02GK01A	5	LOGIC DIAG CONTROL ROOM FILTRATION FAN	Dec 83
J-02GK01B	2	FILTER ABSORBER UNIT SUPPLY	Dec 83
J-02GK01C	3	FILTER ABSORBER UNIT DISK DAMPER	Dec 83
J-02GK01D	1	CONTROL ROOM RECIRC DAMPERS CONTROL BLDG HVAC	Dec 83
J-02GK01E	1	CONTROL BLDG HVAC CONTROL A/C UNIT DISCHARG DMP	Dec 83
J-02GK02A	6	CONTROL ROOM A/C UNIT FAN & TEMP	May 84
J-02GK02B	1	CONTROL ROOM A/C UNIT SUPPLY DAMPER	Jul 77
J-02GK02C	1	CONTROL BLDG HVAC CONT ROOM A/C UNIT DISC DAMPE	Jul 77
J-02GK03A	2	CONTROL BLDG HVAC FIRE ISO- LATION DAMPERS	Aug 80
J-02GK07	2	MISC DAMPERS	Jan 79
J-02GK09	2	ISO DAMPERS	May 80
J-02GK10A	4	CONTROL ROOM PRESS FAN	Dec 83
J-02GK10B	3	CONTROL ROOM PRESS SUPPLY DAMPER	Dec 83
J-02GK10C	1	CONT BLDG HVAC CONT ROOM PRESS SYS UNIT SUP DAM	Dec 83
J-02GK11	2	CONTROL ROOM PRESS SYSTEM FIL UNIT	May 80
J-02GK13	5	CLASS 1E ELEC EQUIP A/C UNIT	Nov 83
J-02GK15	2	CHLORINE ALARM	Aug 80
J-02GK17A	0	CONTROL LOGIC DIAGRAM CONTROL BLDG HVAC	Dec 83
J-02GK17B	0	CONTROL LOGIC DIAGRAM CONTROL BLDG HVAC	Dec 83
J-02GK19	2	CONT BLDG HVAC RETRN DAMPERS RM FLTR ABSORB UNI	Jan 79
J-02GK23	1	CONTROL BLDG HVAC FIRE ISO DAMPERS	May 80
J-02GK25	0	CONTROL LOGIC DIAGRAM FOR CONTROL BLDG HVAC	May 80
J-02GK26	0	CONTROL LOGIC DIAGRAM FOR CONTROL BLDG HVAC	May 80
J-02GK27	0	CONTROL LOGIC DIAGRAM FOR CONTROL BLDG HVAC	May 80
J-02GL01A	2	AUX BLDG HVAC AIR SUPPLY UNIT	Nov 81
J-02GL01B	2	AUX BLDG HVAC AIR SUPPLY	Jan 79
J-02GL03A	2	AUX BLDG HVAC MISC ROOM COOLERS	Apr 83
J-02GL03B	1	AUX BLDG HVAC MISC ROOM COOLER	Apr 80

## SNUPPS - C

TABLE 1.7-1 (Sheet 17)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J-02GL03C	1	AUX BLDG HVAC MISC ROOM COOLER	Apr 80
J-02GL11	5	AUX BLDG HVAC PENE RM COOLER FANS	Mar 84
J-02GL13	3	AUX BLDG HVAC ISO DAMPERS	Jun 83
J-02GL15	2	AUX BLDG HVAC FUEL BLDG HVAC DISCH ISO DAMPERS	Jan 79
J-02GL21	1	AUX BLDG HVAC CCW PUMP ROOM EXH DAMPERS	Jul 83
J-02GL23	1	CONTROL LOGIC DIAGRAM	Dec 83
J-02GM01A	4	DIESEL GENERATOR BLDG HVAC FAN & DAMPER	Mar 84
J-02GM01B	5	DIESEL GENERATOR BLDG EXH DAMPERS	Nov 83
J-22GN01	5	CONTAINMENT COOLING	Aug 84
J-22GN02A	1	CONTROL LOGIC DIAGRAM CONTAINMENT COOLING SYS	Aug 84
J-22GN02B	1	CONTROL LOGIC DIAGRAM CONTAINMENT COOLING SYS	Aug 84
J-02GN03A	3	CONTAINMENT COOLING FANS	Mar 82
J-02GS02	0	CTMT HYDROGEN CONTROL THERMAL HYDROGEN RECOM	May 83
J-02GS03	3	CTMT HYDROGEN CONTROL SOLENOID ISO VLV	Jun 81
J-02GS06	1	CTMT HYDROGEN CONTROL PURGE SUBSYS ISO VLV	May 84
J-02GS08	1	CONTROL LOGIC DIAGRAM	Jun 81
J-02GS09	0	CONTROL LOGIC DIAGRAM	Feb 81
J-02GS10	1	CONTROL LOGIC DIAGRAM	Jun 81
J-02GT03	2	CONTAINMENT PURGE SYSTEM VALVES	May 80
J-02GT06	2	CONTAINMENT PURGE SYS ISO DAMPERS	Jan 79
J-02GT10	2	CONTROL LOGIC DIAGRAM	May 84
J-02JE01	6	EMERGENCY FUEL OIL TRANSFER PUMPS	Sept 83
J-02JE02	6	CONTROL LOGIC DIAGRAM	Sept 83
J-02KA02	2	COMPRESSED AIR SYS COMP AIR CONTAIN ISO VALVE	Nov 79
J-02KA03	3	COMPRESSED AIR SYS HYDROGEN CS M/U AIR VALVE	May 84
J-02KA08	1	CONTROL LOGIC DIAGRAM COMPRESSED AIR SYSTEM	Mar 83
J-02KC08	2	CONTROL LOGIC DIAG FIRE PROTECTION SYSTEM	Dec 83
J-22KJ02	1	CONTROL LOGIC DIAGRAM	Jun 84
J-02KJ03	0	CONTROL LOGIC DIAGRAM	May 83
J-02LF03	0	FLOOR & EQUIP DRAINS REACT BLDG SUMP PUMP ISO VL	Jan 78

TABLE 1.7-1 (Sheet 18)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J-02LF04	2	FLOOR & EQUIP DRAINS REACT BLDG SUMP PMP ISO VLV	May 84
J-02LF08	2	FLOOR & EQUIP DRAINS DISCHARGE VALVES	Oct 80
J-02RP01	0	CONTROL LOGIC DIAGRAM	May 83
J-02RP01A	0	CONTROL LOGIC DIAGRAM	May 83
J-02SA03	1	CONTROL LOGIC DIAGRAM	Nov 83
J-02SA04	0	CONTROL LOGIC DIAGRAM	Apr 83
J-02SA05	0	CONTROL LOGIC DIAGRAM	Apr 83
J-02SJ01	2	NUC SYSTEM CON ISOLATION VALVES	Feb 81
J-02SJ03	2	CONTROL LOGIC DIAGRAM	Mar 82
J-24001	0	CONTROL ROOM EQUIPMENT ARRANGEMENT	Jan 84
J-04002	10	REACT COOL SUPRT SYSTEM CONSOLE RL001 & RL002	Jan 83
J-04003	6	REACTOR OPERATORS CONSOLE RL003 & RL004	Nov 83
J-04004	8	TURB GEN & FEEDWATER CONSOLE RL005 & RL006	Jul 83
J-04005	1	SITE RELATED MAIN CONT BOARD RL013 & RL014	Jul 78
J-04006	8	STATION ELEC DIST MAIN CONT BOARD RL015 & RL016	Nov 83
J-04007	10	ENG SAFETY FEATURES MAIN CONT BOARD RL017 & RL018	Jul 83
J-04008	14	ENG SAFETY FEATURES MAIN CONT BOARD RL019 & RL020	Nov 83
J-04009	6	REACT AUX MAIN CONTROL BOARD RL021 & RL022	Jan 83
J-04010	8	TURBOGENERATORS & FDWTR MAIN CONT BD RL023 & RL024	Jan 83
J-04011	8	TURBOGENERATORS & FDWTR MAIN CONT BD RL025 & RL026	Jul 83
J-04012	6	TURB SUPERVISORY MAIN CONT BRD RL027 & RL028	Jan 83
J-04013	6	END SECTION MAIN CONT BRD RL011 & RL012	Jul 83
J-04014	1	MAIN CONTROL BOARD DETAILS	Jun 77
J-04015	0	OPERATORS CONSOLE DETAILS	Feb 77
J-24016	0	BILL OF MAT MAIN CONTROL PANEL	Aug 84
J-05001	5	AUX CONTROL PANEL DWGS	Dec 83
J-05002	1	AUX SHUTDOWN PANEL DETAILS	Mar 78
J-05003	7	AUX SHUTDOWN PANEL RP 118 7 SHTS	Jul 83
J-05021	5	LOCAL CONT PANEL RPO 68 MISC BOP INST PANEL	Jul 82

TABLE 1.7-1 (Sheet 19)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J-05023	6	MISC BOP INST PANEL RP068 BILL OF MAT	Oct 82
J-26002	0	ANN WINDOW ARRGT RK016.018.020	Jun 84
J-26003	0	ANN WINDOW ARRGT RK022.024.026	Jun 84
J-U2EF01A	5	ESWS ESW PUMPS	May 84
J-U2EF01B	2	ESW PUMP LUB VLV	Nov 83
J-U2EF02A	4	ESWS SELF CLEANING STRAINER	Oct 83
J-U2EF02B	4	ESWS SELF CLEANING STAIN TRASH VLV	May 84
J-U2EF05	4	ESWS ULTIMATE HEAT INLET BY- PASS VLV	Apr 84
J-U2EF06A	3	ESW CONTROL LOGIC DIAGRAM	Feb 81
J-U2EF06B	3	ESW CONTROL LOGIC DIAGRAM	Apr 84
J-U2EF06C	1	ESW CONTROL LOGIC DIAGRAM	Mar 78
J-U2EF07A	2	ESW CONTROL LOGIC DIAGRAM	May 80
J-U2EF07B	1	ESW CONTROL LOGIC DIAGRAM	Mar 78
J-U2EF08	3	ESW CONTROL LOGIC DIAGRAM	May 84
J-U2GD01	4	ESW PUMPHOUSE HVAC SUPPLY FANS	May 84
J-U2GD02	3	ESW PUMPHOUSE HVAC UNIT HEATERS	Aug 81
J-U2GD03	3	COOLING TOWER ELEC ROOM HVAC SUPPLY FANS	May 84
J-U5041	1	ESSENTIAL SERVICE WATER EF-155 & EF-156	Feb 78
J-U5042	2	ESSENTIAL SERVICE WATER PNL EF-155 BILL OF MAT	Mar 79
J-U5043	2	BILL OF MAT ESSENTIAL SERVICE WTR SYS EF-156	Mar 79
J-U5046	1	COOLING TOWER CONT EF-169 & EF-170	Feb 78
J-U5047	2	BILL OF MAT COOLING TOWER CONT PANEL EF-169	Mar 79
J-U5048	2	BILL OF MAT COOLING TOWER CONTROL PANEL EF-170	Mar 79
8756D37*	10	PROCESS CONTROL BLOCK DIAGRAM (1 THROUGH 42)	Jun 83
5655D49*	7	NIS SOURCE RANGE FUNCTIONAL BLOCK DIAGRAM	Aug 74
5655D50*	5	NIS INTERMEDIATE RANGE FUNCTIONAL BLOCK DIAGRAM	Jun 72
5655D51*	8	NIS POWER RANGE FUNCTIONAL BLOCK DIAGRAM	Mar 73
5655D52*	6	NIS AUXILIARY CHANNELS FUNCTIONAL BLOCK DIAGRAM	Jun 72
8761D17*	5	SAFEGUARDS TEST CABINET (1 THROUGH 20)	Jun 76

\*Drawings supplied by NSSS Vendor.



SNUPPS - C

TABLE 1.7-1 (Sheet 20)

<u>DRAWING NUMBER</u>	<u>REV NO.</u>	<u>TITLE</u>	<u>DATE</u>
J104-0027	25**	SIGNAL FLOW BLOCK DIAGRAM FOR THE ENGINEERED SAFETY FEATURES ACTUATION SYSTEMS (SHEET 1)	5/14/84
J104-0279	03**	ISOLATION AND DISTRIBUTION OF ANALOG SIGNALS TO COMPUTER (ESFAS SHEET 1A)	10/31/79
J104-0028	09**	CHANNEL IV BLOCK DIAGRAM (ESFAS SHEET 2)	1/31/84
J104-0029	06**	CHANNEL II BLOCK DIAGRAM (ESFAS SHEET 3)	1/31/84
J104-0030	04**	ATI BLOCK DIAGRAM (ESFAS SHEET 3)	3/3/84
J104-0031	07**	BISTABLE RACK - CHANNEL I (ESFAS SHEET 5)	2/14/80
J104-0032	06**	ISOLATION RACK - CHANNEL I (ESFAS SHEET 6)	10/4/83
J104-0033	07**	ACTUATION INPUTS - CHANNEL I (ESFAS SHEET 7)	3/3/83
J104-0034	15**	ACTUATION OUTPUTS AND STATUS INDICATIONS - CHANNEL I (ESFAS SHEET 8)	1/16/84
J104-0035	06**	ANNUNCIATOR/COMPUTERS OUTPUTS - CHANNEL I (ESFAS SHEET 9)	1/31/84
J104-0036	06**	ANALOG SIGNALS - CHANNEL II (ESFAS SHEET 10)	2/14/80
J104-0037	07**	ISOLATION RACK LOGIC SIGNALS - CHANNEL II (ESFAS SHEET 11)	7/25/83
J104-0038	06**	RELAY OUTPUTS - CHANNEL II (ESFAS SHEET 12)	1/31/84
J104-0039	07**	BISTABLE RACK - CHANNEL IV (ESFAS SHEET 13)	2/14/80
J104-0040	05**	ISOLATION RACK - CHANNEL IV (ESFAS SHEET 14)	2/14/80
J104-0041	05**	ACTUATION INPUTS - CHANNEL IV (ESFAS SHEET 15)	2/14/80
J104-0042	16**	ACTUATION OUTPUTS AND STATUS INDICATIONS - CHANNEL IV (ESFAS SHEET 16)	1/16/84
J104-0176	08**	LOGIC BLOCK DIAGRAM ESFAS	2/14/80
J104-0177	07**	ANNUNCIATOR/COMPUTER OUTPUTS - CHANNEL IV (ESFAS SHEET 17)	1/31/84
J104-0178	04**	ATI MODULE A (ESFAS SHEET 18)	2/14/84
J104-0179	04**	ATI MODULE B (ESFAS SHEET 19)	10/4/83

\*\*Submittal number.

TABLE 1.7-2

PIPING AND INSTRUMENTATION DIAGRAMS

<u>Drawing Number</u>	<u>Figure Number</u>	<u>Sheet</u>	<u>Title</u>	<u>Revision</u>
10466-M-020101	1.1-1	1	Symbols and Legend for System Flow and Piping & Instrumentation Diagrams	4
10466-M-020102	1.1-1	2	Symbols and Legend for System Flow and Piping & Instrumentation Diagrams	3
10466-M-020103	1.1-1	3	Symbols and Legend for System Flow and Piping & Instrumentation Diagrams	3
10466-M-020104	1.1-1	4	Symbols and Legend for System Flow and Piping & Instrumentation Diagrams	2
10466-M-02AB01	10.3-1	1	Main Steam System	12
10466-M-02AB02	10.3-1	2	Main Steam System	13
10466-M-02AB03	10.3-1	3	Main Steam System	8
10466-M-02AC01	10.2-1	1	Main Turbine	10
10466-M-02AC02	10.2-1	2	Main Turbine	11
10466-M-02AC03	10.2-1	3	Main Turbine	12
10466-M-02AC04	10.2-1	4	Main Turbine	6
10466-M-02AD01	10.4-2	1	Condensate System	10
10466-M-02AD02	10.4-2	2	Condensate System	11
10466-M-02AD03	10.4-2	3	Condensate System	6
10466-M-02AD04	10.4-2	4	Condensate System	4
10466-M-02AD05	10.4-2	5	Condensate System	5
10466-M-22AD06	10.4-2	6	Condensate System	0
10466-M-22AE01	10.4-6	1	Feedwater System	0
10466-M-02AE02	10.4-6	2	Feedwater System	13
10466-M-02AF01	10.4-6	3	Feedwater Heater Extraction Drains & Vents	13
10466-M-02AF02	10.4-6	4	Feedwater Heater Extraction Drains & Vents	8
10466-M-02AF03	10.4-6	5	Feedwater Heater Extraction Drains & Vents	8
10466-M-02AF04	10.4-6	6	Feedwater Heater Extraction Drains & Vents	3
10466-M-22AK01	10.4-5	1	Condensate Demineralizer System	0
10466-M-02AK02	10.4-5	2	Condensate Demineralizer System	6
10466-M-22AK03	10.4-5	3	Condensate Demineralizer System	0
10466-M-02AL01	10.4-9		Auxiliary Feedwater System	15
10466-M-22AN01	9.2-4		Demineralized Water Storage and Transfer System	0
10466-M-02AP01	9.2-12		Condensate Storage and Transfer System	13

TABLE 1.7-2 (Sheet 2)

<u>Drawing Number</u>	<u>Figure Number</u>	<u>Sheet</u>	<u>Title</u>	<u>Revision</u>
10466-M-02AQ01	10.4-7	1	Condensate Chemical Addition System	6
10466-M-02AQ02	10.4-7	2	Feedwater Chemical Addition System	5
10466-M-02BB01	5.1-1	1	Reactor Coolant System	15
10466-M-02BB02	5.1-1	2	Reactor Coolant System	18
10466-M-22BB03	5.1-1	3	Reactor Coolant System	0
10466-M-02BB04	5.1-1	4	Reactor Coolant System	6
10466-M-02BG01	9.3-8	1	Chemical and Volume Control System	12
10466-M-02BG02	9.3-8	2	Chemical and Volume Control System	14
10466-M-02BG03	9.3-8	3	Chemical and Volume Control System	17
10466-M-02BG04	9.3-8	4	Chemical and Volume Control System	11
10466-M-02BG05	9.3-8	5	Chemical and Volume Control System	14
10466-M-02BL01	9.2-13		Reactor Makeup Water System	9
10466-M-22BM01	10.4-8	1	Steam Generator Blowdown System	0
10466-M-02BM02	10.4-8	2	Steam Generator Blowdown System	10
10466-M-02BM03	10.4-8	3	Steam Generator Blowdown System	5
10466-M-02BM04	10.4-8	4	Steam Generator Blowdown System	5
10466-M-02BM05	10.4-8	5	Steam Generator Blowdown System	2
10466-M-02BN01	6.3-1	1	Borated Refueling Water Storage System	12
10466-M-02CA01	10.4-4		Steam Seal System	12
10466-M-02CF01	10.2-1	5	Lube Oil Storage, Transfer and Purification System	9
10466-M-02CF02	10.2-1	6	Lube Oil Storage, Transfer and Purification System	7
10466-M-02CG01	10.4-3	1	Condenser Air Removal	7
10466-M-02DA01	10.4-1	1	Circulating Water & Water Box Drains System	8
10466-M-02DA02	10.4-1	3	Circulating Water & Water Box Venting System	3
10466-M-02EA01	9.2-1	1	Service Water System	6
10466-M-22EA02	9.2-1	2	Service Water System	1
10466-M-02EB01	9.2-14		Closed Cooling Water System	13

## SNUPPS - C

TABLE 1.7-2 (Sheet 3)

<u>Drawing Number</u>	<u>Figure Number</u>	<u>Sheet</u>	<u>Title</u>	<u>Revision</u>
10466-M-02EC01	9.1-3	1	Fuel Pool Cooling and Cleanup System	10
10466-M-02EC02	9.1-3	2	Fuel Pool Cooling and Cleanup System	10
10466-M-02EF01	9.2-2	1	Essential Service Water System	10
10466-M-22EF02	9.2-2	2	Essential Service Water System	0
10884-M-U2EF01	-	-	Essential Service Water System	13
10466-M-02EG01	9.2-3	1	Component Cooling Water System	11
10466-M-02EG02	9.2-3	2	Component Cooling Water System	14
10466-M-22EG03	9.2-3	3	Component Cooling Water System	0
10466-M-22EJ01	5.4-7		Residual Heat Removal System	3
10466-M-02EM01	6.3-1	2	High Pressure Coolant Injection System	8
10466-M-02EM02	6.3-1	3	High Pressure Coolant Injection System	12
10466-M-02EN01	6.2.2-1		Containment Spray System	6
10466-M-02EP01	6.3-1	4	Accumulator Safety Injection	13
10466-M-02FA01	9.5.9-1	1	Auxiliary Boiler System	10
10466-M-02FB01	9.5.9-1	2	Auxiliary Steam System	16
10466-M-02FB02	9.5.9-1	3	Auxiliary Steam System	11
10466-M-02FC02	10.4-10		Auxiliary Feedwater Pump Turbine	13
10466-M-02FC03	10.4-6	7	S.G.F.P. Turbine "A"	12
10466-M-02FC04	10.4-6	8	S.G.F.P. Turbine "B"	12
10466-M-02FE01	9.5.9-1	4	Auxiliary Steam Chemical Addition System	1
10466-M-02GA01	9.4-9	1	Plant Heating System	7
10466-M-22GA02	9.4-9	2	Plant Heating System	0
10466-M-02GB01	9.4-10		Central Chilled Water System	12
10884-M-U2GD01	9.4-8	2	ESW Pump House & UHS Elec. Room HVAC	5
10466-M-22GE01	9.4-4	1	Turbine Building HVAC	1
10466-M-22GE02	9.4-4	2	Turbine Building HVAC	1
10466-M-22GE03	9.4-4	3	Turbine Building HVAC	1
10466-M-02GE04	9.4-4	4	Turbine Building HVAC	3
10466-M-02GF01	9.4-3	1	Miscellaneous Buildings HVAC	12
10466-M-02GF02	9.4-3	2	Miscellaneous Buildings HVAC	4

TABLE 1.7-2 (Sheet 4)

<u>Drawing Number</u>	<u>Figure Number</u>	<u>Sheet</u>	<u>Title</u>	<u>Revision</u>
10466-M-02GG01	9.4-2	1	Fuel Building HVAC	13
10466-M-22GG02	9.4-2	2	Fuel Building HVAC	1
10466-M-22GH01	9.4-5	1	Radwaste Building HVAC	0
10466-M-22GH02	9.4-5	2	Radwaste Building HVAC	1
10466-M-22GK01	9.4-1	1	Control Building HVAC	0
10466-M-22GK02	9.4-1	2	Control Building HVAC	1
10466-M-22GK03	9.4-1	3	Control Building HVAC	1
10466-M-02GK04	9.4-1	4	Control Building HVAC	11
10466-M-22GL01	9.4-3	3	Auxiliary Building HVAC	1
10466-M-22GL02	9.4-3	4	Auxiliary Building HVAC	2
10466-M-22GL03	9.4-3	5	Auxiliary Building HVAC	1
10466-M-02GM01	9.4-7		Diesel Generators Building HVAC	9
10466-M-22GN01	9.4-6	1	Containment Cooling System	0
10466-M-02GN02	9.4-6	2	Containment Cooling System	10
10466-M-22GP01	6.2.6-1		Containment Integrated Leak Rate Test	2
10466-M-02GR01	9.4-6	3	Containment Atmospheric Control System	9
10466-M-02GS01	6.2.5-1		Containment Hydrogen Control System	8
10466-M-22GT01	9.4-6	4	Containment Purge System HVAC	1
10466-M-02HA01	11.3-1	1	Gaseous Radwaste System	10
10466-M-02HA02	11.3-1	2	Gaseous Radwaste System	8
10466-M-02HA03	11.3-1	3	Gaseous Radwaste System	9
10466-M-02HB01	11.2-1	1	Liquid Radwaste System	16
10466-M-02HB02	11.2-1	2	Liquid Radwaste System	14
10466-M-22HB03	11.2-1	3	Liquid Radwaste System	0
10466-M-22HB04	11.2-1	4	Liquid Radwaste System	2
10466-M-02HC01	11.4-1	1	Solid Radwaste System	10
10466-M-02HC02	11.4-1	2	Solid Radwaste System	12
10466-M-22HC03	11.4-1	3	Solid Radwaste System	0
10466-M-02HC04	11.4-1	4	Solid Radwaste System	7
10466-M-02HD01	12.3-4		Decontamination System	5
10466-M-22HE01	9.3-11	1	Boron Recycle System	0
10466-M-02HE02	9.3-11	2	Boron Recycle System	9
10466-M-22HE03	9.3-11	3	Boron Recycle System	0
10466-M-02HF01	10.4-12	1	Secondary Liquid Waste System	7
10466-M-02HF02	10.4-12	2	Secondary Liquid Waste System	10
10466-M-02HF03	10.4-12	3	Secondary Liquid Waste System	9
10466-M-22HF04	10.4-12	4	Secondary Liquid Waste System	1
10466-M-02JE01	9.5.4-1		Emergency Fuel Oil System	10

TABLE 1.7-2 (Sheet 5)

<u>Drawing Number</u>	<u>Figure Number</u>	<u>Sheet</u>	<u>Title</u>	<u>Revision</u>
10466-M-02KA01	9.3-1	1	Compressed Air System	14
10466-M-22KA02	9.3-1	2	Compressed Air System (Service Air)	0
10466-M-02KA03	9.3-1	3	Instrument Air System	7
10466-M-C2KA04	9.3-1	4	Instrument Air System	8
10466-M-22KA05	9.3-1	5	Compressed Air System	0
10466-M-02KA06	9.3-1	6	Compressed Air System	7
10466-M-02KC01	9.5.1-1	1	Fire Protection System	12
10466-M-02KC02	9.5.1-1	2	Fire Protection System	12
10466-M-02KC03	9.5.1-1	3	Fire Protection System	12
10466-M-02KC04	9.5.1-1	4	Fire Protection (Halon) System	5
10466-M-02KC05	9.5.1-1	5	Fire Protection System	6
10466-M-02KC06	9.5.1-1	6	Fire Protection (Halon) System	3
10466-M-02KC07	9.5.1-1	7	Fire Protection (Halon) System	3
10466-M-02KD01	9.2-5	1	Domestic Water System	6
10466-M-22KD02	9.2-5	2	Domestic Water System	0
10466-M-02KH01	9.3-9	1	Service Gas System	5
10466-M-02KH02	9.3-9	2	Service Gas System	6
10466-M-02KJ01	9.5.5-1	1	Standby Diesel Generator "A" Cooling Water System	4
10466-M-02KJ04	9.5.5-1	2	Standby Diesel Generator "B" Cooling Water System	5
10466-M-02KJ02	9.5.6-1	1	SDG "A" Intake, Exh., F.O. & Starting Air System	10
10466-M-02KJ05	9.5.6-1	2	SDG "B" Intake, Exh., F.O. & Starting Air System	9
10466-M-02KJ03	9.5.7-1	1	Standby Diesel Generator "A" Lube Oil System	5
10466-M-02KJ06	9.5.7-1	2	Standby Diesel Generator "B" Lube Oil System	4
10466-M-02LA01	9.3-5	1	Sanitary Lift Station & Turb. Bldg. Sanitary Drainage System	4
10466-M-02LA02	9.3-5	2	Comm. Corridor & Control Bldg. Sanitary Drainage System	1
10466-M-22LD01	9.3-5	3	Chemical and Detergent Waste	0
10466-M-22LE01	9.3-5	4	Turb. Bldg. & Aux. Feedwater Pump Rooms Oily Waste System	1
10466-M-22LE02	9.3-5	5	Control & Diesel Gen. Bldg. Oily Waste System	1
10466-M-02LE03	9.3-5	6	Turb. Bldg. & Aux. Boiler Room Oily Waste System	5

SNUPPS - C

TABLE 1.7-2 (Sheet 6)

<u>Drawing Number</u>	<u>Figure Number</u>	<u>Sheet</u>	<u>Title</u>	<u>Revision</u>
10466-M-02LE04	9.3-5	7	Tendon Access Gallery & Turb. Bldg. Oily Waste System	6
10466-M-02LF01	9.3-5	8	Aux. Bldg. Floor and Equipment Drain System	7
10466-M-22LF02	9.3-5	9	Aux. Bldg. Floor And Equipment Drain System	0
10466-M-02LF03	9.3-5	10	Aux. Bldg. Floor and Equipment Drain System	6
10466-M-22LF04	9.3-5	11	Aux. Bldg. Floor and Equipment Drain System	0
10466-M-02LF05	9.3-5	12	Aux. Bldg. Floor and Equipment Drain System	7
10466-M-02LF06	9.3-5	13	Radwaste & Fuel Bldgs. FED System	6
10466-M-02LF07	9.3-5	14	Radwaste Bldg. FED System	1
10466-M-02LF08	9.3-5	15	Control and Fuel Bldgs. FED System	5
10466-M-02LF09	9.3-5	16	Reactor Bldg. & Hot Machine Shop FED System	12
10466-M-02LF10	9.3-5	17	Radwaste Bldg. and Tunnel FED System	5
10466-M-02RM01	9.3-4	1	Process Sampling System	9
10466-M-02RM02	9.3-4	2	Process Sampling System	7
10466-M-02RM03	9.3-4	3	Process Sampling System	8
10466-M-02SJ01	9.3-2	1	Nuclear Sampling System Primary Sampling System	12
10466-M-02SJ02	9.3-3		Nuclear Sampling System Radwaste Sampling System	6
10466-M-02SJ03	9.3-2	2	Nuclear Sampling System Primary Sampling System	3
10466-M-02SJ04			Piping & Instrument Diag	4

Callaway Plant As-Built Drawings Not Available  
for September, 1984 Transmittal

Table 1.7-1 (Sheet 19)

1. Dwg 8756D37
2. Dwg 8761D17

Table 1.7-1 (Sheet 20)

1. Dwg 2104-042







SNUPPS  
JOB NO. 10408  
REF. SPECIFICATION 10408-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. B1001  
BECHTEL DWG. NO. 10408-J-20016 SH. NO. 1

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
100	BG HIS-B152	2	LETDOWN LINE ISO	CUTLER HAMMER E-30 JY15	E-03BG 17	CBV	4		0
101	BG HIS-B160		LETDOWN CTMT ISO		E-03BG 36		1		
102	BG HC-128		RHRS CLEAN-UP TO LETDOWN HX	HAGAN MODEL 154	E-03BG 40	WESTINGHOUSE	NV	DWG # B-768-11	
103	BG TR-130		LETDOWN HX OUTLET TO CCW	HAGAN MAN/AUTO STA	E-035C04 M-761-147 CB	WESTINGHOUSE	NV	DWG # B-768-31	
104	BG PR-131		LETDOWN HX OUTLET	HAGAN MAN/AUTO STA	E-035C04 M-761-145 C7	WESTINGHOUSE	NV	DWG # B-768-31	
105	BG HIS-129		DEMIN INLET/DIVERT	CUTLER HAMMER E-30 JY15	E-03BG 18	BECHTEL	NV	W/TWO KLA1 & TWO KLA02	MODIFIED 007
106	BG HIS-112A		DEMIN DIVERT TO VCT/RECYCLE HOLDUP TK	JY16	E-03BG 33	CBV	NV		MODIFIED 007
107	BG HIS-B154 B		RCS EXCESS LETDOWN	JY15	E-03BG 48		4		
108	BG HIS-B153 B		RCS EXCESS LETDOWN				4		
109	BG HC-123		EXCESS LETDOWN HX OUTLET	HAGAN MODEL 154	E-03BG 39	WESTINGHOUSE	NV	DWG # M-768-11	
110	BL HIS-3		REAC W/U WTR XFR PMP A	ELECTRO SWITCH MODEL 20LD	E-03BL04	CBV	NV	CAT # 20LD-09C454-008	
111	BL HIS-4		REAC W/U WTR XFR PMP B		E-03BL05		NV		
112	BG HIS-B133		POST BTRS TO BCMS	CUTLER HAMMER E 30 JY-15	E-03BG 02		NV		
113	BG HIS-B130		PRE BTRS TO BCMS				NV		
114	BG HIS-B135		BCMS INLET ISOL				NV		
115	BG HIS-B145		REGEN HX AUXILIARY PZR SPRAY		E-03BG 19		NV		
116	BG HIS-B146		REGEN HX TO RCS LP 1 COLD LEG		E-03BG 04		NV		
117	BG HIS-B147		REGEN HX TO RCS LP 4 COLD LEG				NV		
118	BG HIS-B149CA		LETDOWN ORIFICE C ISO	JY3	E03BG 35		NV		
119	BG HIS-B149BA		LETDOWN ORIFICE B ISO				NV		
120	BG HIS-B149AA		LETDOWN ORIFICE A ISO				NV		
121	BG HIS-B109		POS DISPL CHARG PMP RECIRC		E03BG 23		NV		
122	BG HIS-3		POS DISPL CHARG PMP CTRL	ELECTRO SWITCH 20P	E03BG 37		NV	20PHD 090854-010 (004)	BIC

SHIPPER JOB NO. 10466 REF. SPECIFICATION 10466-J-200		BILL OF MATERIAL MAIN CONTROL PANEL				PANEL NO. RL001 MECHTEL DWG. NO. 10466-J-24016 SH. NO. 2		REV.
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS
123	8C HIS-187	2	CHARG HIGH FLOW CTRL	HAGAN MODEL 134	E-03BG44	WESTINGHOUSE	NV	DWG # W768-11 MODIFIED 016
124	8B SR-459A		POS DISPL CHARG PMP SPEED CTRL	HAGAN MAN AUTO STA	E-03SC03 M-761 142 C6		NV	DWG # W768-31
125	8C HIS-1A		CENT CHARG PMP A	ELECTRO SWITCH 20P	E-03BG01	CBV	1	20 PHD-090BS4-010 (004) B4C
126	8C HIS-112C		VCT LEV CTRL VLV	CUTLER HAMMER E-30 JY9	E-03BG12		4	
127	8C HIS-112B		VCT LVL CTRL VLV				1	
128	8C HIS-111B		BA BLEND TO VCT INLET ISO	JY16	E-03BG28		NV	
129	8C HIS-110B		BA TO VCT DISCH ISO		E-03BG31		NV	
130	8C HIS-110A		TO BA BLENDING ISO		E-03BG32		NV	
131	8C HIS-111A		REC WTR TO BA BLEND ISO	JY16	E-03BG29		NV	
132	8C HIS-112		SEAL WTR RETURN CMT ISO	JY9	E-03BG38		1	
133	8C HIS-8100		SEAL WTR RETURN CMT ISO		E-03EG24		4	
134	8C HIS-8104		IMMEDIATE BORATE TO CHARG PMP SUCT		E-03BG13		NV	
135	8C HIS-8143		EXCESS LETDOWN HX TO RCOT/ SEAL WTR HX	JY15	E-03BG20		NV	
136	8B HIS-8141A		RCP A SEAL WTR OUT ISO		E-03BB08		NV	
137	8B HIS-8141E		RCP B SEAL WTR OUT ISO				NV	
138	8B HIS-8141C		RCP C SEAL WTR OUT ISO				NV	
139	8B HIS-8141D		RCP D SEAL WTR OUT ISO				NV	
140								
141	8C HIS-8A		BA XFR PMP B	ELECTRO SWITCH MODEL 20LD	E-03BG27		NV	20LD-0904S4-008
142	8C HIS-5A		BA XFR PMP A				NV	
143	8C HIS-8110		CHARG PMP A RECIRC ISO	CUTLER HAMMER E-30 JY9	E-03BG11		1	
144	8M HIS-1120		CHARG PMP SUCT FROM RWST		E-03BNO1		1	
145	8M HIS-112E		CHARG PMP SUCT FROM RWST		E-03BNO1		4	

SNUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10488-J-208

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. B1001  
BECHTEL DWG. NO. 10488-J-20018 SH. NO. 1

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SCP GROUP	REMARKS	REV.
146	BG HIS-8111	2	CHARG PMP B RECIRC ISOLATION	CUTLER HAMMER E-30 JY9	E-03BG11	CBV	4		0
147	BG HIS-2A		CENT CHARG PMP B	ELECTRO SWITCH 20P	E-03BG01		4	20PHD 090854-010 (00A) B&C	
148	BG FR-121		CHARG PMP FLOW CTRL	HAGAN RAN/AUTO STA	E-03SC04 M-761-144 C7	WESTINGHOUSE	NV	DWG # B768-31	
149	BG HIS-46R		RCS LETDOWN TO REGEN HX	CUTLER HAMMER E-30 JY15	E-03BG10	CBV	NV		
150	BG HIS-459		RCS LETDOWN TO REGEN HX				NV		
151	BG HIS-8106		CHARG PMP TO REGEN HX ISO		JY9 E-03BG11		1		
152	BG HIS-8105		CHARG PMP TO REGEN HX ISO /CTMP 180				4		
153	RK HS-1		ANNUNCIATOR "ACKNOWLEDGE"	GE CR-2940	E-03RK06		NV	CR-2940UK202B MODIFIED 009	
154									
155									
156									
157									
158	BG HIS-1AX	2	CHG PMP A AUX L.O. PMP	ELECTRO SWITCH 20LD	E-03BG25		NV	20LD-0104C.S-002	
159	BG HIS-2AX		CHG PMP B AUX L.O. PMP				NV		
160	BG HIS-115		VOLUME CONTROL TK VENT	CUTLER HAMMER E-30 JY9	E-03BG21		NV		
161	BG HIS-8245		CVCS DEMINS OUTLET ISO		JY15 E-03BG16		NV		
162	BL HIS-8047		REAC W/U WAT DWT ISO				4		
163	BG FL-121		CHARG PMP FLOW CTRL IN MANUAL	GE-ET-16	E-03BG10		NV	011686708G3A	
164	SB HS-27		SI MANUAL ACTUATION	ELECTRO SWITCH	E-03B12A&14		1&4	CANNED ASSEMBLY, CAT# 100-99-1	
165	SB HS-28								
166	BG XI-191A		BORON CONCENTRATION	WESTINGHOUSE 6074 D91G01	E-03BG44	WESTINGHOUSE	NV	M-770-011, 012, 014	
167	BG-HIS-8154A		RCS EXCESS LETDOWN	CUTLER HAMMER E-30	E-03BG48	CBV	1		
168	BG-HIS-8153A		RCS EXCESS LETDOWN	CUTLER HAMMER E-30	E-03BG48	CBV	1		



SNIPPS  
JOB NO. 10408  
REF. SPECIFICATION 10408-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL002  
BECHTEL DWG. NO. 10444-J-24018 SH. NO. 5

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
1A	BG LI-380	2	CVCS CHILLER SURGE TK. LEVEL	WESTINGHOUSE MODEL 252	E-035C01 M-761-142 C6	WESTINGHOUSE	NV	DWG. # H-768-2	○
1B	BG TI-379		CVCS CHILLER SURGE TK. TEMP.						
2A	BG FI-375		CVCS CHILLER SYS. FLOW						
2B	BG TI-376		CVCS CHILLER OUTLET TEMP.						
3	BG TI-381		BTRS DEMIN INLET TEMP.						
4A	BG FI-385		BTRS DEMIN FLOW						
4B	BG TI-386		BTRS OUTLET TEMP.						
5	BG TI-389		BTR DEMIN OUTLET TEMP.						
6	BG TI-125		LETDOWN HP RLF VLV OUTLET TEMP.						
7A	BG TI-122		EXC LETDOWN HX OUTLET TEMP.						
7B	BG PI-124		EXC LETDOWN HX OUTLET PRES.						
8	BG TI-127		REGEN HX LETDOWN OUTLET TEMP.						
9	BG TI-126		REGEN HX RETURN TEMP.		E-035C01 M-761-140 C5				
10	BG FR-110		BORIC ACID BLEND FLOW REC.	2 PEN HAGAN OPTIMAC WESTINGHOUSE MODEL 252				DWG. # H-768-12	
11A	BG LI-102		" A " BORIC ACID TK. LEVEL	WESTINGHOUSE MODEL 252	E-035B08D M-761-133 C1		1	DWG. # H-768-2	
11B	BG LI-104		" A " BORIC ACID TK. LEVEL		E-035B08D M-761-139 C4		4		
11C	BG TI-103		" A " BORIC ACID TK. TEMP.		E-035C02 M-761-144 C7		NV		
12A	BG LI-105		" B " BORIC ACID TK. LEVEL		E-035B08D M-761-137 C3		1		
12B	BG LI-106		" B " BORIC ACID TK. LEVEL		E-035B08D M-761-139 C4		4		
12C	BG TI-107		" B " BORIC ACID TK. TEMP.		E-035C01 M-761-140 C5		NV		
13A	BB PI-455A		PRESSURIZER PRES.		E-035B08A M-761-133 C1				
13B	BB PI-456		PRESSURIZER PRES.		E-035B08A M-761-133 C2				
13C	BB PI-457		PRESSURIZER PRES.		E-035B08B M-761-137 C3				

SNUPPS  
JOB NO. 10400  
REF: SPECIFICATION 10400-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL002  
BECHTEL DWG. NO. 10400-J-20010 SH. NO. 6

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
130	BB PI-450	2	PRESSURIZER PRES.	WESTINGHOUSE MODEL 252	E-035B08B M-761-139 C4	WESTINGHOUSE	NV	DWG. # W-760-2	0
14A	BB LI-459A		PRESSURIZER LEVEL		E-035B08D M-761-133 C1		1		
14B	BB LI-460A		PRESSURIZER LEVEL		E-035B08D M-761-135 C2		4		
14C	BB LI-461		PRESSURIZER LEVEL		E-035B08D M-761-137 C3		1		
14D	BB LI-462		PRESSURIZER LEVEL		E-035C02 M-761-146 C8		NV		
15	BB LR-459		PRESSURIZER LEVEL REC.	2 PEN HAGAN OPTIMAC	E-035C01 M-761-142 C6		NV	DWG. # W-760-12	
16	BG HS-25		REAC. COOL W/U CONTROL SEL SW	ELECTROSWITCH SERIES 20KD	E-038G28, E035C01 E-038G47 M761-140 E-038G51	CBV	NV	20KD 0924 AB 001 SIX POSITION SWITCH	
17	SB HS-0		STM LINE PRESS SI BLOCK "A"	CUTLER HAMMER E-30 AB	E-035B03,15 M-767-175		1		
18	BB LS/450D		PZR LEVEL CONTROL SEL SW	ELECTROSWITCH SERIES 20KD	E-035C01,10 M-761-142 C6		NV	CAT # 20KD-1352CB-001 THREE POSITION SWITCH	
19	BB PS/55F		PZR PRES. CONTROL SEL SW		E-035C01,10 M-761-142 C6			CAT # 20KD-1352CB-001 THREE POSITION SWITCH	
20	SB HS-10		STM LINE PRESS SI BLOCK "B"	CUTLER HAMMER E-30 AB	E-035B03,15 M-767-175	CBV	4		
21	BB LS/59E		PZR LEVEL REC. SEL SW	ELECTROSWITCH SERIES 20KD	E-035C01,10 M-761-142 C6		NV	CAT # 20KD-1352CB-001 THREE POSITION SWITCH	
22	BG HIS-23		CVCS CHILLER PUMP A CTRL SW	ELECTROSWITCH SERIES 20LD	E-038G26			20LD-0104CB-002	
23	BG HIS-24		CVCS CHILLER PUMP B CTRL SW						
24	BG HIS-21		CVCS CHILLER UNIT CONT SW		E-038G22				
25	BG HC-307		BTRS DEMINS BYPASS CONT	HAGAN MODEL 154	E-038G40	WESTINGHOUSE		DWG. # W-760-11-MODIFIED 016	
26	BG HIS-7054		BTRS ISOL VLV	CUTLER HAMMER E-30 JY15	E-038G30	CBV			
27	BB PI-103A		REAC. COOL WIDE RANGE LOOP 4 PRES	WESTINGHOUSE MODEL 252	E-035B08B M-761-139 C4	WESTINGHOUSE		0-700 PSIG DWG. # W-760-2	
28	BG FI-183A		IMMEDIATE BORATION FLOW		E-035C01 M-761-142 C6				
29	BG FY-111B		COMBINED REAC W/U & BA COUNTER	REDINGTON MODEL F500/E	E-035C01 M-761-140 C5			DWG. # W-760-037 MODIFIED	009
30	BG FY-1100		BORIC ACID COUNTER					DWG # M-76A-036 MODIFIED	009
31A	BL LI-1		REAC. W/U STOR. TK. LEVEL	SIGMA 1151 VB	E-03BL07	BECHTEL			
31B	BL TI-11		REAC. W/U STOR. TK. TEMP.						



SHUPPE  
JOB NO. 10666  
REF. SPECIFICATION 10666-J-208

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL002  
BENTEL DWG. NO. 10666-J-20816 BH NO. 7

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
32		2							0
33	8L PI-10		REAC W/U PUMPS BISCH PRESS	SIGMA 1151 VB	E-03BLO7	BENTEL	NV		0
34									
35A	88 TI-451		PZR SPRAY TEMP (LP 1)	WESTINGHOUSE MODEL 252	E-03SC01 M-761-140 C5	WESTINGHOUSE	NV	DWG # M-768-2	
35B	88 TI-452		PZR SPRAY TEMP (LP 2)		E-03SC01 M-761-142 C6				
36A	88 TI-453		PZR LIQUID TEMP		E-03SC01 M-761-142 C6				
36B	88 TI-454		PZR VAPOR TEMP		E-03SC01 M-761-142 C6				
37	88 HIS-51A		PZR HTRS. BACKUP GP. A	ELECTROSWITCH MODEL 20LD	E-03BB 22	DNV	NV	20LD.-0908D4 001	
38	88 HIS-52A		PZR HTRS. BACKUP GP. B		E-03BB 24		NV		
39	88 HIS-50		PZR HTRS. CONTROL GP. C	ELECTROSWITCH 20P.	E-03BB20		NV	20PHD-090854-011 (003)	B4C
40	88 HS-8		PZR PRES SI TRAIN "A" BLOCK/RST	CUTLER HAMMER E-30 AB	E-035B03,15 M-767-175		I		
41	86 FR-375		CYCS CHILLER HDR FLOW	HAGAN MAN/AUTO STA.	E-03SC03 M-761-143 C6	WESTINGHOUSE	NV	DWG # M-768-31	
42	86 TR-385		BTRS. OUTLET TEMP						
43	86 TR-381A		BTRS. DEMIN INLET TEMP						
44	86 TR-381B		BTRS. DEMIN INLET TEMP						
46A	86 FI-132		LETDOWN HX OUTLET FLOW	WESTINGHOUSE MODEL 252	E-03SC02 M-761-146 C8			DWG # M-760-2	
46B	86 TI-130		LETDOWN HX OUTLET TEMP.						
46C	87 PI-131		LETDOWN HX OUTLET PRESS		E-03SC02 M-761-146 C7				
47A									
47B	86 TI-216		SEAL INJ TEMP		E-03SC01 M-761-142 C6				
47C	86 PI-115		VOLUME CONTROL TR PRESS		E-03SC01 M-761-142 C6				
48	86-LI-185		VOLUME CONTROL TANK LEVEL		E-03BG 51D M-761-146 C8		4		
49	86-LI-112		VOLUME CONTROL TANK LEVEL				I		

SNUPPS  
JOB NO 10086  
REF: SPECIFICATION 10086-J-008

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL002

BECHTEL DWG NO 10086-J-24018 SH. NO. 8

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
50	BG LK-149F	2	VOLUME CONTROL TK LEVEL	HAGAN MAN/AUTO STA.	E-035C04 M-761-147 CB	WESTINGHOUSE	NV	DWG # M-768-31	0
51	BG FK-111		REAC WAKE UP WATER FLOW CONTROL		E-035C03 M-761-141 CS				
52	BG FK-110		BORIC ACID FLOW CONTROL						
53A	BG PI-120A		CHARG HDR TO RCP SEALS PRESS	WESTINGHOUSE MODEL 252	E-035C01 M-761-142 C6			DWG # W-768-2	
53B	BG FI-121A		CHARG HDR FLOW		E-035C02 M-761-144 C7				
54	BG FY-111BB		COMBINED MU & BA FLOW TOTALIZER	REDDING TON 300	E-03BQ28				
55	BG FY-110BB		BA TOTALIZER		E-03BQ31				
56	CS-7		PZR PRES SI TRAIN "B" BLOCK/RST	CUTLER-HAMMER E-30 AB	M-767-175 E-038B03,15	CBV	4		
57	BB TI-450		PZR SURGE LINE TEMP	WESTINGHOUSE 252	E-035C01 M-761-142 C6	WESTINGHOUSE	NV	DWG # W-768-2	
58	BB PR-455A		PZR PRESS (MASTER)	HAGAN MAN/AUTO STA.	E-035C03 M-761-141 CS			DWG # M-768-31	
59	BB PR-455B		PZR SPRAY						
60	BB PR-455C		PZR SPRAY						
61	BB LK-459		PZR LEVEL (MASTER)		E-035C03 M-761-142 CS				
62	BG HIS-7010A		BTR "A" DENIN ISOL	CUTLER HAMMER E-30 Jy15	E-03BQ03	CBV	NV		
63	BG HIS-7010B		BTR "B" DENIN ISOL						
64	BG HIS-7010C		BTR "C" DENIN ISOL						
65	BG HIS-7010D		BTR "D" DENIN ISOL						
66	BG HIS-7010E		BTR "E" DENIN ISOL						
67	BG HIS-28		RCHS START-STOP SW	ELECTROSWITCH SERIES 20 KD	E-035C13		NV	*20KD-0906S4-006 MODIFIED 529	
68	BG HIS-27		BTRS CONTROL SW	ELECTROSWITCH 20 LD	E-035C13 M-761-145 C2		NV	*20LD-2352C4 024	
69	SBHS-42A		SI MANUAL RESET A	CUTLER HAMMER E-30 AA	M-767-176, M-767-177 E-035B03,04,15		1		
70	SBHS-43A		SI MANUAL RESET B	AA			4		
71	BL HIS-1		DENIN WATER TO H/O STOR. TK	JY9	E-03BLO3		NV		



SNUPPS  
JOB NO. 10448  
REF. SPECIFICATION 10400J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL003  
BECHTEL DWG. NO. 10400J-20018 SH. NO. 10

ITEM NO.	INSTRUMENT NO.	LIMIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
100	SE HS-3	2	POWER RANGE BLOCK SW	CUTLER HAMMER E-30 AA	M-767-175 E-035B03,15,19	CBV	I		○
101	2B TS-412T		T/AVG DEFEAT SW	ELECTROSWITCH SERIES 20KD	M-761-146 CB E-035C02,08		NV	CAT# 20KD-1552AB-001	
102	BB TS-411F		ΔT DEFEAT SW		E-035C02,08 M-761-146 CB		↓	↓	
103	SE HS-4		INT RANGE BLOCK SW	CUTLER HAMMER E-30 AA	M-767-175 E-035B03,15		I		
104A	SE NI-31B		SOURCE RANGE COUNT RATE	WESTINGHOUSE MODEL 252	M-768-018	WESTINGHOUSE	NV	DWG # W-768-2	
104B	SE NI-31D		SOURCE RANGE S/U RATE						
104C	SE NI-32B		SOURCE RANGE COUNT RATE						
104D	SE NI-32D		SOURCE RANGE S/U RATE						
105A	SE NI-35B		INT RANGE CURRENT						
105B	SE NI-35D		INT RANGE S/U RATE						
105C	SE NI-36B		INT RANGE CURRENT						
105D	SE NI-36D		INT RANGE S/U RATE						
106									
107									
108	SE HS-5		SOURCE RANGE BLOCK/RESET SW	CUTLER HAMMER E-30 AB	E-035B03,15	CBV	I	MODIFIED	009
109	SC CB-A1		ROD GROUP STEP COUNTER	WHITTAKER MOD. 127FD100A/3	M-763-203	WESTINGHOUSE	NV	DWG # W-768-9	
110	SC CD-A2								
111	SC CB-B1								
112	SC CB-B2								
113	SC TI-412A		TEMPERATURE ERROR	WESTINGHOUSE MODEL 252	E-035C02 M-761-146 CB	WESTINGHOUSE	NV	MODIFIED SCALE	014
114	SC SI-412		ROD SPEED	WESTINGHOUSE MODEL 252	E-035C02 M-761-146 CB	WESTINGHOUSE	WV	DWG # W-768-2	
115	SF HS-2		FULL LENGTH ROD CONTROL	WESTINGHOUSE OT2C1	M-763-202 E-035F10,19	CBV	↓	LEVER OPERATOR S#314C285G01	
116	SE HS-6		PRR RANGE BLOCK SW	CUTLER HAMMER E-30 AA	M-767-175 E-035B03,15	CBV	4		



SHUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10488-J-208

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. R1003

MECHTEL DWG. NO. 10488-J-24018

SH. NO. 12

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
140	SF ZL-2A	2	ROD DIRECTION LIGHTS (IN-OUT)	GE ET-16	M763-202 E-035F10	CBV	NV	0116B6708G <sup>SR</sup> 3G	0
141	SF ZL-2B		ROD DIRECTION DEMAND LIGHTS	GE ET-18	E-035C11	↓	NV	↓	
142									
143	SF HS-3		START UP PUSHBUTTON	WESTINGHOUSE OT2 SERIES	E-035F20 M-763-202	CBV	NV		
144	SF HS-4		ALARM RESET PUSHBUTTON	↓	E-035F19		NV		
145	SA HS-145		SIS A/CSAS A SW	CUTLER HAMMER E-30 AN	E-035A22,25		1		
146	SA HS-146		CIS BA/CIS A A SW						
147	SA HS-147		AFAS A/FWIS A SW						
148	SA HS-148		SLIS A/CPIS A SW						
149	SA HS-149		FBIS A/CRVIS A SW						
150	SA HS-150		ELECT A/ SW						
151	SA HS-151		/ALARM ACK SW				↓	ALARM ACK BUTTON TO READ "CLEAR"	
152	SA HS-152		SIS B/CSAS B SW				4		
153	SA HS-153		CIS BB/CIS AB SW						
154	SA HS-154		AFAS B/FWIS B SW						
155	SA HS-155		SLIS B/CPIS B SW						
156	SA HS-156		FBIS B/CRVIS B SW						
157	SA HS-157		ELECT B/						
158	SA HS-158		/ALARM ACK				↓	ALARM ACK BUTTON TO READ "CLEAR"	
159	SA HS-159		AFAS /ALARM ACK		E-035A26		6	↓	
160	SB HS-1		RX TRIP MANUAL ACT	ELECTROSWITCH	E-035B12A,14		1&4	CANNED ASSEMBLY, CAT#100-99-3	
161	SE XX-1		AUDIBLE COUNT RATE CONTROL	—	—	WESTINGHOUSE	NV	MODIFIED 026	
162	UR 772A		48VDC TOWER SUPPLY FOR HAGAN #154 CONTROLLERS ON R1001/2	—	—		NV	LOCATE INTERNAL TO R1003/4	↓



SNUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10488J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL004

BECHTEL DWG. NO. 10488J-20016

SH. NO. 14

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
1									0
2A									
2B									
2C									
3A	BB TI-411A	2	RC LP <sup>1</sup> ΔT	WESTINGHOUSE MODEL 252	E-035B08A M-761-133 (G1)	WESTINGHOUSE	NV	DWG # W-768-2	
3B	BB TI-411B		RC LP <sup>1</sup> OVRPR ΔT SETPOINT						
3C	BB TI-411C		RC LP <sup>1</sup> OVRTEMP ΔT SETPOINT						
3D	BB TI-412		RC LP <sup>1</sup> T AVG						
4A	BB TI-421A		RC LP <sup>2</sup> ΔT		E-035B08A M-761-135 (C2)				
4B	BB TI-421B		RC LP <sup>2</sup> OVRPR ΔT SETPOINT						
4C	BB TI-421C		RC LP <sup>2</sup> OVRTEMP ΔT SETPOINT						
4D	BB TI-422		RC LP <sup>2</sup> T AVG						
5A	BB TI-431A		RC LP <sup>3</sup> ΔT		E-035B08B M-761-137 (C3)				
5B	BB TI-431B		RC LP <sup>3</sup> OVRPR ΔT SETPOINT						
5C	BB TI-431C		RC LP <sup>3</sup> OVRTEMP ΔT SETPOINT						
5D	BB TI-432		RC LP <sup>3</sup> T AVG						
6A	BB TI-441A		RC LP <sup>4</sup> ΔT		E-035B08B M-761-138 (C4)				
6B	BB TI-441B		RC LP <sup>4</sup> OVRPR ΔT SETPOINT						
6C	BB TI-441C		RC LP <sup>4</sup> OVRTEMP ΔT SETPOINT						
6D	BB TI-442		RC LP <sup>4</sup> T AVG						
7	RJR-1		COMPUTER TREND REC	VUTRONIK MODEL 37303	E-2BRJ02,07	BECHTEL		(SEE NOTE 5)	
8	SB ZL 3		RX TRIP BKR A BYP LIGHT	CUTLER HAMMER E-30 CY6	E-035B10	CBV	1		
9	SB ZL-1		RX TRIP BKR A POSIT LIGHT	CUTLER HAMMER E-30 CY6		CBV	1		









SUNPPS JOB NO. 10000 REF: SPECIFICATION 10000-J-200		BILL OF MATERIAL MAIN CONTROL PANEL		DWG. NO. 10000-J-20018		PANEL NO. RL005			
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP GROUP	REMARKS	REV.
120	FC ZL-5A	2	SGFPT A HPSV POSN	GE ET-18	E-25FC12	CBV	NV	O116B6708G 5G	O
121	FC ZL-5B							5R	
122	FC ZL-9A		SGFPT A LPSV POSN					5G	
123	FC ZL-9B							5R	
124	FC MFS-8B		SGFPT A SPEED CTRL XFR	CUTLER HAMMER E-30 JY9	E-23FC16	CBV			
125	FC SI-33		SGFPT A SPEED	GE DB 40	E-23FC14	GE		DWG # MO12-62	
126	FC SK-509A		SGFPT FASTER SPEED CTRL	MAN/AUTO STA W/POT (HAGAN)	E-03SC03 M-7E1-140 C5	WESTINGHOUSE		DWG. # M788-31	
127									
128	FC ZL-105A		SGFPT B HPSV POSN	GE ET-16	E-23FC12	CBV	NV	O116B6708G 5G	
129	FC ZL-106B							5R	
130	FC ZL-109A		SGFPT B LPSV POSN					5G	
131	FC ZL-109B							5R	
132	FC MFS-18B		SGFPT B SPEED CTRL XFR	CUTLER-HAMMER E-30 JY9	E-23FC16	CBV			
133	FC SI-133		SGFPT B SPEED	GE DB 40	E-23FC14	GE		DWG. # MO12-62	
134	AB HIS-6A		LOOP 3 STM TO AUX FP TURB	CUTLER HAMMER E-30 JY9	E-03AB01	CBV	2		
135	AL HIS-36A		CHDS STOR. TK TO TURB DRIVEN AUX. FB PMP		E-03AL02		1		
136	AL HIS-32A		ESW TO TURB DRIVEN AUX FB PMP		E-03AL04		1		
137	AB HIS-49		LOOP 3 WARM-UP STM TO AUX FP TURB		E-03AB17		1		
138	AL HIS-35A		CHDS STOR TK TO MD AUX FB PMP A		E-03AL02		1		
139	AL HIS-31A		ESW TO MOTOR DRIVEN AUX FB PMP A		E-03AL04		1		
140									
141	AL HIS-33A		ESW TO TURBINE DRIVEN AUX FB PMP	CUTLER HAMMER E-30 JY9	E-03AL04	CBV	4		
142	FC HIS 10		AUX FB PMP TURB BYP TRAP TO COND		E-23FC20		NV		

SNIPPS  
JOB NO 10466  
REF: SPECIFICATION 10466-J-208

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL005  
BECHTEL DWG. NO. 10466-J-24076  
SH. NO. 19

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SFP GROUP	REMARKS	REV.
143	AB HIS-5A	2	LOOP 2 STM TO AUX FP TURB	CUTLER HAMMER E-30 Jy9	E-03AB01	CBV	2		0
144	AL HIS-34A		CHDS STOR TK TO MOTOR DRIVEN AUX FP B		E-03ALD2		4		
145	AL HIS-30A		ESW TO MOTOR DRIVEN AUX FP B		E-03AL04		4		
146	AB HIS-4B		LOOP 2 WARM UP STM TO AUX FP TURB	JY9	E-03AB17		1		
147	FC HK-8B		SGFPT A MANUAL SPEED CTRL	BECKMAN POT 165A658YE	E-23FC16	GE	NY	DWG - M012-56, 57, 58	
148	FC E1-8B		SGFPT A SPEED CTRL OUTPUT VOLTAGE	SIGMA 1146VC		CBV		DWG M-012-071	
149	FC SR-509B		SGFPT A SPEED CTRL	HAGAN MAN/AUTO STA W/POT	E-03SC03 M-761 140 C5	WESTINGHOUSE		DWG # W768-31	
150	AE F1-50B		FEEDWATER HDR PRESS	WESTINGHOUSE MODEL 252	E-03SC01 M-761 140 C5	WESTINGHOUSE		DWG # W768-2	
151	FC HK-18B		SGFPT B MANUAL SPEED CTRL	BECKMAN POT 165A658YE	E-23FC16	GE		DWG - M012-56, 57, 58	
152	FC E1-18B		SGFPT B SPEED CTRL OUTPUT VOLTAGE	SIGMA 1146VC		CBV		DWG M-012-071	
153	FC SR-509C		SGFPT B SPEED CTRL	HAGAN MAN/AUTO STA W/POT	E-03SC03 M-761 140 C5	WESTINGHOUSE		DWG # W768-31	
154	AL HIS-23A		AUX FEED PMP A CTRL (MD)	ELECTROSWITCH 20P	E-03AL01A	CBV	1	20PHD 090854-010 (004) B4C	
155	FC HIS-312A		AUX FP TURB MECH TRIP & THROTTLE VLV	CUTLER HAMMER E-30 Jy9	E-23FC23	CBV	2		
156	FC HK-313A		AUX FP TURB SPEED GOV CTRL	FOXBORO 255HG+M2NH	E-23FC24	BECHTEL	2		
157	AL HIS-22A		AUX FEED PMP B CTRL (MD)	ELECTROSWITCH 20P	E-03AL01B	CBV	4	20PHD 090854-010 (004) B4C	
158	RK HS-6		ANNUNCIATOR FIRST OUT "ACKNOWLEDGE"	GE CR 2940	E-03RK06	CBV	NY	CR-2940UK 202B MODIFIED 009	
159	RK HS-7		ANNUNCIATOR FIRST OUT "RESET"				NY	MODIFIED 009	
160	RK HS-5		ANNUNCIATOR "ACKNOWLEDGE"				NY	MODIFIED 009	
161	AC XX-1		MN TURBINE EHC OPERATING PANEL	GE MARK II	E03AC09,13,15	GE	NY	DWG M-825-027	
162	AB US-500Z		STM DUMP SEL SW	ELECTRO SW MODEL 20 KD	E-03SC01eo B M-761 142 C6	CBV		20KD-0106CB-003	
163	AB HS-63		STM DUMP INTLK SEL SW		E-03AB31		1	20KD-090853-019 512	
164	AB HS-64		STM DUMP INTLK SEL SW		E-03AB31		4	512	
165	FC EL 35A,37A		AUX FW PMP GOV VLV POSIT	GE ET 16	E-23FC25		2	0116B670BG 3R 36	



SNUPPS  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. R1006

BECHTEL DWG. NO. 10466-J-24016

SH. NO. 21

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG	SUPPLIER	SEP. GROUP	REMARKS	REV.
1	SB HS-42	2	REACTOR TRIP MANUAL ACTUATION	ELECTROSWITCH	E025B12A,14	CBV	144	CANNED ASSEMBLY, CAT.#100-99-2	0
2	AE FR-510		SG A STM FLOW, FW FLOW, LEV	3 PEN HAGAN OPTIMAC	E-035C01 M-761-140 C5	WESTINGHOUSE	NV	DRG. #768-12	
3	AL FI-2A		AUX FW TO SG A	SIGMA 1151 VB	E03AL07	BECHTEL	1		
4	AE FR-520		SG B STM FLOW, FW FLOW, LEV	3 PEN HAGAN OPTIMAC	E-035C01 M-761-142 C6	WESTINGHOUSE	NV	DRG. #768-12	
5	AL FI-3A		AUX FW TO SG B	SIGMA 1151 VB	E03AL07	BECHTEL	2		
6	AE FR-530		SG C STM FLOW, FW FLOW, LEV	3 PEN HAGAN OPTIMAC	E-035C02 M-761-144 C7	WESTINGHOUSE	NV	DRG. #768-12	
7	AL FI-4A		AUX FW TO SG C	SIGMA 1151 VB	E03AL07	BECHTEL	3		
8	AE FR-540		SG D STM FLOW, FW FLOW, LEV	3 PEN HAGAN OPTIMAC	E-035C02 M-761-146 C8	WESTINGHOUSE	NV	DRG. #768-12	
9	AL FI-1A		AUX FW TO SG D	SIGMA 1151 VB	E03AL07	BECHTEL	4		
10	MA EI-1		MAIN GENERATOR VOLTMETER	SIGMA 1151 VB	E-03MA01	CBV	NV	LEGEND KILOVOLTS 0-30KV 0-150V 1151VB 150 ACV	
11	MA II-4		MAIN GENERATOR AMPMETER					LEGEND KILOAMPS 0-40 KAMPS 0-5A 1151VB 5ACA	
12	MA JI-1		MAIN GENERATOR MEGA WATTMETER					LEGEND MEGAWATTS 0-1500 1151VB 10 DCV	
13	MA JI-4		MAIN GENERATOR VARIMETER	SIGMA 1151 VC				LEGEND MEGAVARS 1500 IN, 0, 1500 OUT	012
14									
15	MB II-2		EXCITER FIELD AMPMETER	SIGMA 1151 VB	E-03MB01	CBV		LEGEND DCAMPS SCALE: 0-200A 4-20mA 1151VB 4-20 DCMA	
16	MB ZL-2		EXCITER FIELD BKR IND LIGHTS	GE ET-16	E-03MB11	GE		0116B6708G 3G 3R	
17	MB HS-2		EXCITER FIELD BKR	GE SBM				44A332112	
18	MB EI-3		XFR VOLTMETER	GE TYPE 180	E-03MB01			LEGEND DC VOLTS DWG M-860-039 -10V TO +10V MODIFIED SCALE 013	
19	MB ZL-3		REG MODE XFR SWITCH IND LIGHTS	GE ET-16	E-03MB10			0116B6708G 3G 3R	
20	MB HS-3		REG MODE XFR SWITCH	GE SBM				44A319841	
21	MB ZL-6		AC VOLTAGE REGULATOR LIGHTS	GE ET-16				0116B6708G 3G 3R	
22	MB HS-6		AC VOLTAGE REGULATOR	GE SBM				44A336705-001	
23	MB ZL-5		DC VOLTAGE REGULATOR LIGHTS	GE ET-16				0116B6708G 3G 3A 3R	

SHUPPS  
JOB NO. 10486  
REF. SPECIFICATION 10486-J-208

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL006  
BECHTEL DWG. NO. 10486-J-24018  
SH. NO. 22

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
24	MB-HS-5	2	DC VOLTAGE REGULATOR	GE SBM	E03MB10	GE	NV	44A336704-001	0
25A	MB-II-1		GEN FIELD AMMETER	SIGMA 1151VB	E03MBO1	CBV		DC AMPS 0-8000 AMP6 1151VB4-20 DCMA	
25B	MB-EI-4		GEN FIELD VOLTMETER					DC VOLTS 0-600V 1151VB-20 DCMA	
26A	MB-HS-4		PWR STABILIZER REMOTE CTRL	GE SBM	E03MB12	GE			
26B	MB-ZL-4		PWR STABILIZER IND LIGHTS	GE ET-16				0116B6708 <sup>5G</sup> <sub>5R</sub>	
27	MB-JI-4		PWR STABILIZER METER	SIGMA 1151V		CBV		LEGEND DC VOLTS -10V~0~+10V 1151VC20 DCV	
28	AE FS/510C		FR-510 FEED FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC01,09 M-761-140 C5			CAT# 20KD-0904TJ4-002	
29	AB ZL-1A		SG A STM DUMP TO ATMOS VLV POSN	GE ET-16	E-03AB06		1	0116B6708G <sup>3R</sup> <sub>3G</sub>	
30	AB PIC-1A		SG A STM DUMP TO ATMOS CTRL	FOXBORO 250HM+M2NH	E-03AB20	BECHTEL			
31	AB FS/512C		FR-510 STM FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC01,09 M-761-140 C5	CBV	NV	CAT# 20KD-0904D4-002	
32	AB HL-1		SG A STM DUMP CTRL AT SHUTDOWN PNL	GE ET-16	E-03AB20		1	0116B6708G 3W	
33	AE FS/520C		FR-520 FEED FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC01,09 M-761-142 C6		NV	CAT# 20KD-0904D4-002	
34	AB ZL-2A		SG B STM DUMP TO ATMOS VLV POSN	GE ET-16	E-03AB06		2	0116B6708G <sup>3R</sup> <sub>3G</sub>	
35	AB PIC-2A		SG B STM DUMP TO ATMOS CTRL	FOXBORO 250HM+M2NH	E-03AB20	BECHTEL	2		
36	AB FS/522C		FR-520 STM FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC01,09 M-761-142 C6	CBV	NV	CAT# 20KD-0904D4-002	
37	AB HL-2		SG B STM DUMP CTRL AT SHUTDOWN PNL	GE ET-16	E-03AB20		2	0116B6708G 3W	
38	AE FS/530C		FR-530 FEED FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC02,09 M-761-144 C7		NV	CAT# 20KD-0904D4-002	
39	AB ZL-3A		SG C STM DUMP TO ATMOS VLV POSN	GE ET-16	E-03AB06		3	0116B6708G <sup>3R</sup> <sub>3G</sub>	
40	AB PIC-3A		SG C STM DUMP TO ATMOS CTRL	FOXBORO 250HM+M2NH	E-03AB20	BECHTEL	3		
41	AB FS/532C		FR-530 STM FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC02,09 M-761-144 C7	CBV	NV	CAT# 20KD-0904D4-002	
42	AB HL-3		SG C STM DUMP CTRL AT SHUTDOWN PNL	GE ET-16	E-03AB20		3	0116B6708G 3W	
43	AE FS/540C		FR-540 FEED FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC02,09 M-761-146 C8		NV	CAT# 20KD-0904D4-002	
44	AB ZL-4A		SG D STM DUMP TO ATMOS VLV POSN	GE ET-16	E-03AB06		4	0116B6708G <sup>3R</sup> <sub>3G</sub>	



SNUPPS  
JOB NO. 10400  
REF: SPECIFICATION 10400-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL006

BECHTEL DWG. NO. 10400-J-24018

SH. NO. 23

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SFP GROUP	REMARKS	REV.
45	AB PIC-4A	2	SG D STM DUMP TO ATROS CTRL	FOXBORO 250HM+M2NH	E-03AB20	BECHTEL	4		0
46	AB FS/542C		FR 540 STM FLOW SEL SW	ELECTROSWITCH MODEL 20KD	E-03SC02,09 M-761-146 'CB	CBV	NV	CAT#20KD-0904D4-002	
47	AB HL-4		SG D STM DUMP CTRL AT SHUTDN PNL	GE ET-18	E-03AB20	↓	4	01166708G 3W	
48	MA HS-1		MAIN GENERATOR VOLTMETER PHASE SEL SW	GE SBI	E-03MA01	↓	NV	STYLE NO. 16SBCFII MODIFIED 009	
49									
50	MA SI-5		MAIN GENERATOR SYNCHROSCOPE LIGHTS	WESTINGHOUSE	E-03MA14	CBV	NV	11611632/3	
51	MA SI-6		MAIN GENERATOR SYNCHROSCOPE	GE AB 20	E-03MA14	↓	↓	#50106452AAAA	
52	AL ZL-7A		SG A AUX FW CTRL VLV WD PMP B	—	E-03AL03	—	4	INTERNAL TO ITEM 53	
53	AL HR-7A		↓	FOXBORO 2AX+M2IH	↓	BECHTEL	4	MODIFIED 541	
54	AL ZL-8A		SG A AUX FW CTRL VLV TO PMP HAGAN W/A STA	—	E-03AL05	—	1	INTERNAL TO ITEM 55	
55	AL HR-8A		↓	FOXBORO 2AX+M2IH	↓	BECHTEL	1		
56	AE ZL-510		SG A WH FW REG VLV	GE ET-18	E-03AE06	CBV	NV	01166708G 3R 36	
57	AE FR-510		↓	HAGAN W/A STA	E-03SC03 M-761 141 'CS	WESTINGHOUSE	NV	DWG. W768 31	
58	AL ZL-9A		SG B AUX FW CTRL VLV WD PMP A	—	E-03AL03	—	1	INTERNAL TO ITEM 59	
59	AL HR-9A		↓	FOXBORO 2AX+M2IH	↓	BECHTEL	1	MODIFIED 541	
60	AL ZL-10A		SG B AUX FW CTRL VLV TO PMP	—	E-03AL06	—	4	INTERNAL TO ITEM 61	
61	AL HR-10A		↓	FOXBORO 2AX+M2IH	↓	BECHTEL	4		
62	AE ZL-520		SG B WH FW REG VLV	GE ET-18	E-03AE06	CBV	NV	01166708G 3R 3G	
63	AE FR-520		↓	HAGAN W/A STA	E-03SC03 M-761 143 'CB	WESTINGHOUSE	NV	DWG. W768 31	
64	AL ZL-11A		SG C AUX FW CTRL VLV WD PMP A	—	E-03AL03	—	1	INTERNAL TO ITEM 65	
65	AL HR-11A		↓	FOXBORO 2AX+M2IH	↓	BECHTEL	1	MODIFIED 541	
66	AL ZL-12A		SG C AUX FW CTRL VLV TO PMP	—	E-03AL05	—	4	INTERNAL TO ITEM 67	
67	AL HR-12A		↓	FOXBORO 2AX+M2IH	↓	BECHTEL	4		

SHUPPS  
JOB NO. 104CS  
REF: SPECIFICATION 10408J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL006

DWG. NO. 10408J-20018

SH. NO. 24

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV. O
68	AE ZL-330	2	SG C RN FW REG VLV	GE ET-16	E-03AE06	CBV	NV	011686708G <sup>3R</sup> 36	0
69	AE FX-530			HAGAN W/A STA	E-03SC04 M-761-144 C7	WESTINGHOUSE	NV	DWG. #768-31	
70	AL ZL-5A		SG D AUX FW CTRL VLV RD PWP B	—	E-03AL03	—	4	INTERNAL TO ITEM 71	
71	AL HK-5A			FOX BORO 2AX + M2EH	—	BECHTEL	4	MODIFIED 541	
72	AL ZL-6A		SG D AUX FW CTRL VLV TO PWP	—	E-03AL05	—	1	INTERNAL TO ITEM 73	
73	AL HK-6A			FOX BORO 2AX + M2EH	—	BECHTEL	1		
74	AE ZL-540		SG D RN FW REG VLV	GE ET-16	E-03AE06	CBV	NV	011686708G <sup>3R</sup> 36	
75	AE FX-540			HAGAN W/A STA	E-03SC04 M-761-146 CB	WESTINGHOUSE	NV	DWG. #768-31	
76									
77	MA HS-2		BKR SELECT SW	GE SBM	E-03MA14	CBV	NV	CAT NO 10XD:49	
78	MA HS-3		SWITCHYARD BKR NO 1	GE SBM				CAT. NO. 10AA121	
79	MA HS-4		BKR NO 2	GE SBM					
80	MA ZL 3A		BKR NO 1 IND	GE ET-16				011686708 <sup>3R</sup> 36	
81	MA ZL 4A		BKR NO 2 IND						
82	AC-XX-2		RN TURB EHC TEST PNL	GE MARK II	E03AC09, 14, 16	GE	NV	DWG # M825-028	
83									
84	AL HL-7		SG A AUX FW CTRL LOCAL/REMOTE	—	E-03AL03	—	4	INTERNAL TO ITEM 53	
85	AL HL-8			—	E-03AL05	—	1	55	
86	AL HL-9		SG B	—	E-03AL03	—	1	59	
87	AL HL-10			—	E-03AL05	—	4	61	
88	AL HL-11		SG C	—	E-03AL03	—	1	65	
89	AL HL-12			—	E-03AL05	—	4	67	
90	AL HL-5		SG D	—	E-03AL03	—	4	71	

SNUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10488-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. R1006  
BECHTEL DWG NO. 10488-J-24918  
SH. NO. 25

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV. 0
91	AL HL-8	2	SG D AUX FR CTRL LOCAL/REMOTE	—	E-03AL05	—	I	INTERNAL TO ITEM 73	0
92	AB ZL-34/45		STM DUMP VLVS POSITION LTS	BAILEY RZ 222222	E-03AB07, 10	CBV	NV	(2 BAILEY UNITS) MODIFIED 009	
93	AB ZI-34		STM DUMP VLV POSITION IND	SIGMA 1145VB	E-03AB19	BECHTEL			
94	AB ZI-35				E-03AB19				
95	AB ZI-36								
96	MA-ZL-2		SYNC CHECK PERMISS LIGHT	GE ET 16	E-03MA14	CBV		0116B670BG 5W	
97	MA-ZL-3								
98	AB PK-507		STM HDR PRESS CONT	HAGAN W/A STA FOXBORO	E-03SC03 M-761-140 C5	WESTINGHOUSE		DWG #W78A-31	
99	AB UK-33		STM DUMP DEMAND	255 HJ+M2NH	E-03AB19	BECHTEL			
100	MA-SI-7		GENERATOR FREQ METER	SIGMA 1151VB	E-03MA01	CBV		HERTZ 55-60-65 HERTZ 1151VB1DCMA	
101	AE-LK-550		WFR BYPASS CONT A	HAGAN W/A STA	E-03SC03 M-761-141 C5	WESTINGHOUSE		DWG. M-768-31	
102	AE-LK-560		B		E-03SC03 M-761-145 C6				
103	AE-LK-570		C		E-03SC04 M-761-145 C7				
104	AE-LK-580		D		E-03SC04 M-761-146 C8				
105	AE-ZL-550		WFR BYPASS CONT IND A	GE ET-18	E-03AE-18	CBV			
106	AE-ZL-560		B						
107	AE-ZL-570		C						
108	AE-ZL-580		D						
109	MA-EI-8		SWITCHYARD VOLTAGE	SIGMA 1151V	E-03MA14			KILOVOLTS 1151VB159 ACV 0-500 KV	
110	MA-EI-9		GENERATOR XFMR VOLTAGE						
111									
112	MB-ZL-7		DE-EXCITATION IND LIGHTS	GE-ET-16	E-03MB11	CBV	NV	0116B670BG 3G 3R	
113	AE LS/519C		STM GEN A LVL SEL SW	ELECTROSWITCH MODEL 20	M-761-140 C5 E-03SC11		NV	20KD-0904D4-002	



SNUPPS  
JOB NO. 10488

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO11

REV. NO. 27

REF. SPECIFICATION 10-466-J-200

BECHTEL DWG. NO. 10466-J-24016

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV. NO.
1	GS-HIS-3	2	HYD ANAL B INLET ISO	CUTLER HAMMER E-30 JY9	E-036502	CBV	4		0
2	GS-HIS-4				E-036501A		4		
3	GS-HIS-5				E-036501A		4		
4	GS-HIS-35		CTMT ATM POST ACCIDENT SAMP ISO		E-036512		4		
5	GS-HIS-12		HYD ANAL A INLET ISO		E-036502		1		
6	GS-HIS-13				E-036501A		1		
7	GS-HIS-14				E-036501A		1		
8	GS-HIS-30		CTMT ATM POST ACCIDENT SAMP ISO		E-036512		1		
9	GS-HIS-41		ATM SAMPLE VLVs PWR LOCKOUT	DY11	E-036513		4		
10	GS-HIS-8		HYD ANAL B DISCH ISO	JY9	E-036502B		4		
11	GS-HIS-9				E-036501B		4		
12	GS-HIS-43		ATM SAMPLE VLVs PWR LOCKOUT	DY11	E-036501B & 2B		4		
13	GS-HIS-40				E-036513		1		
14	GS-HIS-17		HYD ANAL A DISCH ISO	JY9	E-036502		1		
15	GS-HIS-18				E-036501		1		
16	GS-HIS-42		ATM SAMPLE VLVs PWR LOCKOUT	DY11	E-036501B & 2B		1		
17	SJ-HIS-12		PZR VAPOR SAMP INNER CTMT ISO VLV	JY9	E-035J01		4		
18	SJ-HIS-18		ACCUM TK NUCLEAR SAMP ISO VLV		E-035J01		4		
19	EJ-HIS-15		RHR SAMPLING ISO VLV		E-03EJ02		4		
20	SJ-HIS-152		POST ACCIDENT SAMP RETURN ISO VLV		E-035J02		4		
21	SJ-HIS-13		PZR VAPOR SAMP OUTER CTMT ISO VLV		E-035J02		1		
22	SJ-HIS-19		ACCUM TK NUCLEAR SAMP ISO VLV		E-035J02		1		
23	EJ-HIS-14		RHR SAMPLING ISO VLV		E-03EJ02		1		

SNUPPS  
JOB NO. 10466

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO11  
SH. NO. 28

REF. SPECIFICATION 10466-J-200

BECHTEL DWE. NO. 10466-J-24016

ITEM NO.	INSTALLMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV. NO.
24	SJ-HIS-131	2	POST ACCIDENT SAMP RETURN ISO VLV	CUTLER HAMMER E-30 JY9	E-03SJ02	CBV	1		0
25	SJ-HIS-3		LPI HOT LEG SAMP INNER CTMT ISO VLV		E-03SJ06		4		
26	SJ-HIS-5				E-03SJ01		4		
27	SJ-HIS-129		PZR & RCS OUTER CTMT ISO VLV		E-03SJ02		4		
28	SJ-HIS-127		LPI HOT LEG SAMP OUTER CTMT ISO VLV		E-03SJ07		4		
29	SJ-HIS-4		LP3 HOT LEG SAMP INNER CTMT ISO VLV		E-03SJ06		1		
30	SJ-HIS-128		PZR & RCS		E-03SJ01		1		
31	SJ-HIS-6		LPI HOT LEG SAMP OUTER CTMT ISO VLV		E-03SJ02		1		
32	SJ-HIS-130		PZR & RCS OUTER CTMT ISO VLV		E-03SJ07		1		
33	EJ-HIS-22		CTMT RECIRC SUMP SAMPLE ISO		E-03EJ13		4		
34	SJ-HIS-135		RCS SAMPLE PWR LOCKOUT	DY11	E-03SJ07		4		
35	EJ-HIS-21		CTMT RECIRC SUMP SAMPLE ISO VLV	JY9	E-03EJ13		1		
36	SJ-HIS-136		RCS SAMPLE PWR LOCKOUT	DY11	E-03SJ07		1		
37	SJ-HIS-20		PZR LIQ SAMP INNER CTMT ISO VLV	JY9	E-03SJ04		NV		
38	SJ-HIS-133		RCS TO NUCLEAR SAMP STA ISO VLV		E-03SJ08		NV		
39	SJ-HIS-137		OUTLINE TO WASTE HOLDUP ISO VLV		E-03SJ09		NV	TYPE JY9 W/TWO KLA3 CONTACT BLOCKS	006
40	KCID-329-014		FIRE DETECTOR	PYR-A-LARM DI-2DS	E-03KC17	BECHTEL	NV	LOCATE INTERNAL TO RLO11-14	001
41	QF-IC-003		PAGE STATION	7155-002/5PL	-	GAITRONICS	NV	LOCATED IN RECESS	511
42	QF-HS-003		PAGE STATION SELECT SWITCH	-	-				511
43	EJ-HIS-23		CTMT RECIRC SUMP SAMPLE ISO.	CH E-30	E-03EJ14	BECHTEL	1	E30JY9 W/TWO KLA3	526
44	EJ-HIS-24						4		526
45	EJ-HIS-25						1		526
46	EJ-HIS-26						4		526



SNUPPS  
JOB NO. 10466

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO13

REF SPECIFICATION 10466-J-200

BECHTEL DWG NO 10466-J-24016

SH. NO. 30

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG. (860C-)	SUPPLIER	SEP GROUP	REMARKS	REV. NO.
300		2							0
301	PBHIS12101		MN BKR PB12101	ELECTROSWITCH 20P	X-88933	CBV	5	20PHD-091254-002	
302	PB45121-122		CLOSED BUS XFR	ELECTROSWITCH 20K	X-88934			20KB-092053-001	
303	PBHIS12102		TIE BKR PB12102	ELECTROSWITCH 20P	X-88934			20PHD-091254-002	
304	PBHIS12201		MN BKR PB12201	ELECTROSWITCH 20P	X-88933			↓	
305	PBHIS122-123		CLOSED BUS XFR	ELECTROSWITCH 20K	X-88934			20KB-092053-001	
306	PBHIS12202		TIE BKR PB12202	ELECTROSWITCH 20P	X-88934			20PHD-091254-002	
307	PBHIS12301		MN BKR PB12301	ELECTROSWITCH 20P	X-88933			↓	
308	PBHIS11701		MN BKR PB11701	ELECTROSWITCH 20P	X-88928			↓	
309	PBHS117-218		CLOSED BUS XFR	ELECTROSWITCH 20K				20KB-092053-001	
310	PBHIS11702		TIE BKR PB11702	ELECTROSWITCH 20P				20PHD-091254-002	
311	PBHIS21801		MN BKR PB21801	ELECTROSWITCH 20P				↓	
312	DAII12103		FDR BKR PB12103	SIGMA 1146HL	X-88935			LEGEND: AMPS INPUT: 0-1MADC RANGE: 0-800A	
313	PBHIS12103		FDR BKR PB12103	ELECTROSWITCH 20P	X-88935			20PHD-091254-002	
314	EAI112104		FDR BKR PB12104	SIGMA 1146HL	X-88936			LEGEND: AMPS INPUT: 0-1MADC RANGE: 0-200A	
315	PBHIS12104		FDR BKR PB12104	ELECTROSWITCH 20P	X-88936			20PHD-091254-002	
316	DAII12203		FDR BKR PB12203	SIGMA 1146HL	X-88935			LEGEND: AMPS INPUT: 0-1MADC RANGE: 0-800A	
317	PBHIS12203		FDR BKR PB12203	ELECTROSWITCH 20P	X-88935			20PHD-091254-002	
318	EAI112204		FDR BKR PB12204	SIGMA 1146HL	X-88936			LEGEND: AMPS INPUT: 0-1MADC RANGE: 0-200A	
319	PBHIS12204		FDR BKR PB12204	ELECTROSWITCH 20P	X-88936			20PHD-091254-002	
320	DAII12304		FDR BKR PB12302	SIGMA 1146HL	X-88935			LEGEND: AMPS INPUT: 0-1MADC RANGE: 0-800A	
321	PBHIS12302		FDR BKR PB12302	ELECTROSWITCH 20P	X-88935			20PHD-091254-002	
322	EAI112303		FDR BKR PB12303	SIGMA 1146HL	X-88936			LEGEND: AMPS INPUT: 0-1MADC RANGE: 0-200A	





SHUPPS  
JOB NO. 10488

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO14  
SN NO. 32

REF SPECIFICATION 10444-3-200

BECHTEL DWG NO. 10444-J-24016

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG. (8618-)	SUPPLIER	SEP. GROUP	REMARKS	REV. NO.
201		2							0
202									0
203									
204	MSIIV45		CAL-BLAND-1 V45 BKR	SIGMA 1146HL	X-94760	CBV	6	LEGEND: AMPS INPUT: 0-TMADC RANGE: 0-3000A	
205	MSIIV43		TIE V43 BKR						
206	MSIIV41		START UP XFMR 1V41 BKR						
207	MSIIV55		GEN 1 V55 BKR						
208	MSIIV53		TIE V53 BKR						
209	MSIIV51		MTGY-CAL-8 V51 BKR						
210	MSIIV85		MTGY-CAL-7 V85 BKR						
211			INDICATION	GE ET-16 RED	---		NV	32 REQUIRED (125 VDC)	
212				GE ET-16 GREEN	---			25 REQUIRED (125 VDC)	
213				GE ET-16 WHITE	---			5 REQUIRED (125 VDC)	
214				GE ET-17 CLEAR	---			3 REQUIRED (NEON) (110-139 VAC)	
215									
216									
217									
218									
219									
220									
221									
222	MS52CSV45		CAL-BLAND-1 V45 BKR	GE SBM	X-94099	CBV	6	#10 AA110	
223	MS52CSV45		TIE V43 BKR		X-94098				

SNUPPS  
JOB NO. 10488

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO14

REV. SPECIFICATION 10444-J-200

BECHTEL DWG NO. 10444-J-24016

SH. NO. 33

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG. (8618-)	SUPPLIER	SEP. GROUP	REMARKS	REV. NO.
224	M552CSV41	2	START UP XFMR 1 V41 BKR	GE SBM	X-94097	CBV	6	# 10 AA110	0
225	M552CSV51		MTGY-CAL-8 V51 BKR	↓	X-94100			↓	
226	EIMS BUS B		VOLTAGE BUS B	SIGMA 1146HL	X-94760			LEGEND: KILOVOLTS INPUT: 0-1MADC RANGE: 0-500KV	
227	ERMS BUS A/B		VOLTAGE BUSES A&B	HAGAN SERIES 100				MODEL: 174501550A110 INPUT: 4-20 MADC LEGEND: KILOVOLTS RANGE: 300-400KV	
228	EIMS BUS A		VOLTAGE BUS A	SIGMA 1146HL				LEGEND: KILOVOLTS INPUT: 0-1MADC RANGE: 0-500KV	
229	M552CSV85		MTGY-CAL-7 V85 BKR	GE SBM	↓	↓	↓	# 10AA110	
230									
231									
232									
233									
234									
235									
236	FIKANIO12		DEMIN TRAIN B FLOW CONTROL	FOXBORO	*-G-89029	UE	5	SCALE: 0-300 GPM	
237									
238	ANQLO101B		DEMIN TRAIN B	CUTLER-HAMMER E30 CM	*-X-88931	CBV	5		
239	ANHISO101B			DF					
240	ANHISO102B			↓					
241	ANQLO102B			CM					
242	ANQLO103B			↓					
243	ANHISO103B			DF					
244	ANHISO104B			↓					
245	ANHISO101B			AG					
246	FIKANIO11		DEMIN TRAIN A FLOW CONTROL	FOXBORO	*-G-89028	UE		SCALE: 0-300 GPM	

\*-8600





SHUUPS  
JOB NO. 10466  
REF. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLC15  
BECHTEL DWG. NO. E-466-J-24016 SH. NO. 36

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
100	MB H15-3	2	4.16 KV BUS PB03 FOR BRR 152PB0306	ELECTROSWITCH 20 P	E-03PB12	CBV	NV	20 PHD 090854-011 (003)	B4C
101A	ME J1-1		DC NE01 RB	SIGMA # 1146H	F-21N-01	CBV	1*	LEGEND .. KILORATTS 0-8000 KW 1146 HL 1 DCMA	
101B	ME J1-3		DC NE02 RB		E-23102	CBV	4*	LEGEND .. KILORATTS 0-8000 KW	
102A	ME J1-2		DC NE01 RB		E-23NE01	CBV	1*	LEGEND .. KILOWATTS 0-8000 KVAR	
102B	ME J1-4		DC NE02 KVAR		E-23NE02	CBV	4*	LEGEND .. KILOWATTS 0-8000 KVAR	
103A	ME S1-1		DC NE01 FREQUENCY		E-23NE01	CBV	1*	LEGEND .. HERTZ 5.5 HZ - 65 HZ 1146 HC : 5 m <sub>2</sub> 5 mg DC	
103B	ME S1-3		DC NE02 FREQUENCY		E-23NE02	CBV	4*	LEGEND .. HERTZ 5.5 HZ - 65 HZ	
104A	ME I1-1		DC NE01 FIELD AMPS		E-23NE01	CBV	1*	LEGEND .. FIELD DC AMPS RUG 0-400A 1146 HL 50 DCMV	
104B	ME I1-3		DC NE02 FIELD AMPS		E-23NE02	CBV	4*	LEGEND .. FIELD DC AMPS RUG 0-400A 1146 HL 50 DCMV	
105A	ME I1-2		DC NE01 AMPS		E-23NE01	CBV	1*	LEGEND .. AMPS 0-1500 A 1146 HL 1 DCMA	
105B	ME I1-4		DC NE02 AMPS		E-23NE02	CBV	4*	LEGEND .. AMPS 0-1500 A 1146 HL 1 DCMA	
106A									
106B									
107A	ME E1-1		DC NE01 VOLTS	SIGMA # 1146H	E-23NE01	CBV	1*	LEGEND .. VOLTS 0-5.250 1146 HL 1 DCMA 502	
107B	ME E1-2		DC NE02 VOLTS		E-23NE02	CBV	4*	LEGEND .. VOLTS 0-5.250 1146 HL 1 DCMA 502	
108A	NB E1-1		4.16 KV BUS NB01 VOLTS	SIGMA # 1151VB	E-03NB01	CBV	1	LEGEND .. VOLTS 0-8250 1151 VB 150 ACV 502	
108B	NB E1-2		4.16 KV BUS NB02 VOLTS	SIGMA # 1151VB	E-03NB04	CBV	4	LEGEND .. VOLTS 0-8250 1151 VB 150 ACV 502	
109A	NB E1-3		4.16 KV BUS NB01 SYNCHROSCOPE	GE-AB-40	E-03NB01	CBV	1	# 50106452AAAA	
109B	NB E1-4		4.16 KV BUS NB02 SYNCHROSCOPE	GE-AB-40	E-03NB04	CBV	4	# 50106452AAAA	
110	NB HS-10		4.16 KV BUS NB01 SYNCHROSCOPE SEL SW	ELECTROSWITCH 20 KD	E-03NB01	CBV	1	# 20KD -0904A4-001	
111	ME HS-27		DC NE01 SYNC TRANSF SW	ELECTROSWITCH 20 KD	E-23NE01 E-23NE10	CBV	1	# 20KD 090808 001 MODIFIED 026	
112	ME H15-25		DC NE01 FDR BRR 152NB0111	ELECTROSWITCH 20 P	E-23NE10	CBV	1	20PHD 090854-011 (003)	B4C
113	NB H15-3		4.16 KV BUS NB01 FOR BRR 152NB0109		E-03NB13	CBV	1		B4C

SHUPPS  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLD13  
BECHTEL DWG. NO. 10466-J-24016 SH. NO. 37

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
114	NB HIS 2	2	4.16 KV BUS NB01 FOR BKR 152NB0112	ELECTROSWITCH 20 P	E-03NB12	CBV	1	20PHD-090854-011 (003) B4C	0
115	NB HIS 4		4.16 KV BUS NB02 FOR BKR 152NB0209		E-03NB14	CBV	4		
116	NB HIS 5		4.16 KV BUS NB02 FOR BKR 152NB0212		E-03NB15	CBV	1		
117	NE HIS 20		DG NE02 FOR BKR 152NB0211		E-03NE11	CBV	4		
118	NE HS 20		DG NE02 SYNCH TRANSFER SWITCH	ELECTROSWITCH 20 KD	E-03NE02 E-03NE11	CBV	4	* 20KD 0906DB-001 MODIFIED 026	
119	NB HS 18		4.16 KV BUS NB02 SYNCHROSCOPE SELECTOR SW	ELECTROSWITCH 20 KD	E-03NB04 E-03NB05	CBV	4	* 20KD 0904AA-001	
120	NB HS 7		4.16 KV BUS NB01 FOR BKR SYNC SW 152NB0109	ELECTROSWITCH 20 KD	E-03NB13	CBV	1	* 20KD-0906DB-001 MODIFIED 026	
121	NB HS 6		4.16 KV BUS NB01 FOR BKR SYNC SW 152NB0112	ELECTROSWITCH 20 KD	E-03NB12	CBV	1	MODIFIED 026	
122	NB HS 8		4.16 KV BUS NB02 FOR BKR SYNC SW 152NB0209		E-03NB14	CBV	4	MODIFIED 026	
123	NB HS 9		4.16 KV BUS NB02 FOR BKR SYNC SW 152NB0212		E-03NB15	CBV	4	MODIFIED 026	
124	NB 11 1		XNB01 FEED TO 4.16 KV BUS NB01 AMPS	SIGMA 1146HL	E-03NB03	CBV	1*	LEGEND: AMPS 0-2000A 1146HL 1DCMA	
125	NB 11 2		XNB02 FEED TO 4.16 KV BUS NB01 AMPS		E-03NB02		1*		
126	NB 11 3		XNB01 FEED TO 4.16 KV BUS NB02 AMPS		E-03NB06		4*		
127	NB 11 4		XNB02 FEED TO 4.16 KV BUS NB02 AMPS		E-03NB05		4*		
128	PB HIS 4		4.16 KV BUS PB04 FOR BKR 152PB0402	ELECTROSWITCH 20 P	E-03PB13	CBV	NV	20PHD 090854-011 (003) B4C	
129	PB EI 2		4.16 KV BUS PB03 VOLTAGE	SIGMA 1146VB	E-03PB01	CBV	NV	LEGEND: VOLTS SCALE: 0-5250 1146VB 130ACV 502	
130	PB 11 3		4.16 KV BUS FEED FROM XP003 TO PB03 CURRENT	SIGMA 1146VB	E-03PB01	CBV	NV	LEGEND: AMPS 0-2000A 1146VB 1DCMA	
131	NE HS-13A		DG NE01 AUTO VOLT REG	ELECTROSWITCH 20 K	E-03NE12	CBV	1	CAT# 20KD-0906S3-003	
132	NE HS-15A		DG NE01 MAN VOLT REG			CBV	1		
133	NG HIS 4		4.16 KV FOR BKR 152NB0117	ELECTROSWITCH 20 P	E-U3NG11	CBV	1	20PHD-090854-011 (003) B	
134	NG HIS 3		4.16 KV FOR BKR 152NB0118		E-U3NG10	CBV	1	B4C	
135	PG HIS 19		4.16 KV L.C. XFMR XPG21		E-03PG12	CBV	1		
136	NG HIS 1		4.16 KV FOR BKR 152NB0113		E-03NG10	CBV	1		





SNIPPS  
JOB NO. 10488  
REF. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO15  
BECHTEL DWG. NO. 10466-J-24016 SH. NO. 39

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
160	NG HIS-9	2	480 V L.C. FOR BKR 52NG0101	ELECTROSWITCH 20P	E-03NG11	CBV	1	20PHD 090854-011 (003) B&C	0
161	NG HIS-10		480 V L.C. TIE BKR 52NG0118		E-03NG12	CBV	1		
162	NG HIS-11		480 V L.C. FOR BKR 52NG0301		E-03NG11	CBV	1		
163	NG HIS-14		480 V L.C. FOR BKR 52NG0401		E-03NG11	CBV	4		
164	NG HIS-13		480 V L.C. TIE BKR 52NG0218		E-03NG12	CBV	4		
165	NG HIS-12		480 V L.C. FOR BKR 52NG0201		E-03NG11	CBV	4		
166	RK HS-9		ANNUNCIATOR TEST	GE CR 2940	E-03RK08	CBV	NV	CR-2940UK 202B MODIFIED 009	
167									
168	NE HS-12A		DC NEO2 VOLT REG SEL SW	ELECTROSWITCH 20KD	E-23NE13	CBV	4	20KD-0906DA-001	
169	KJ HS-107A		DC B GOV CONTROL		E-23KJ07		4	20KD-090653-003	
170									
171	NE HS-6		DG NEO2 UNIT PARALLEL SW	ELECTROSWITCH 20KD	E-23NE13		4	20KD-090453-003	
172									
173	PG 11-5		4.16 KV BUS PB03 TO PB04 TIE BUS CURRENT	SIGMA 1146VB	E-03PB02	CBV	NV	LEGEND AMPS 0-2000A 1146 VBI DCMA	
174	NG 11-5		4.16 KV FEED TO XNG07	SIGMA 1136HL	E-03NG02	CBV	1*	AMPS 0-300A 1136 HLI DCMA	
175	NG 11-4		4.16 KV FEED TO XNG05		E-03NG01	CBV	1*	AMPS 0-100A 1136 HLI DCMA	
176	KJ HS-8A		DC A CONTROL SW	CUTLER-HAMMER E-30 AC	E-03KJ01A	CBV	1	w/ KR32 GUARD	
177									
178	KJ HS-108A		DC B CONTROL SW	CUTLER-HAMMER E-30 AC	E-03KJ03A	CBV	4	w/ KR32 GUARD	
179									
180	PG 11-5		4.16 KV FEED TO XPG21	SIGMA 1136HL	E-03PG05	CBV	1*	LEGEND AMPS 0-300A 1136 HLI DCMA	
181	PG 11-8		4.16 KV FEED TO XPG22			CBV	4*		
182	RK HS-8		ANNUNCIATOR ACKNOWLEDGE	GE CR 2940	E-03RK08	CBV	NV	CR-2940UK 202B MODIFIED 009	

ENR/PPS  
JOB NO. 10466

REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL015

BECHTEL DWG. NO. 10466-J-2A016

SH. NO. 40

ITEM NO.	INTEGRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
183	NB ZL-27A	2	D6 NE01 TO BUS NBO1 SYNC. LIGHT	GE ET-18 WHITE LAMP	E-23NE10	CBV	1	0116B6708 G3W	0
184	NB ZL-1		XFMR XNBO1 TO BUS NBO1 SYNC. LIGHT		E-03NB12		1		
185	NB ZL-2		XFMR XNBO2 TO BUS NBO1 SYNC. LIGHT		E-03NB13		1		
186	NB ZL-2GA		DGNE02 TO BUS NBO2 SYNC. LIGHT		E-23NE11		4		
187	NB ZL-3		XFMR XNBO2 TO BUS NBO2 SYNC. LIGHT		E-03NB14		4		
188	NB ZL-4		XFMR XNBO1 TO BUS NBO2 SYNC. LIGHT		E-03NB15		4		
189	NB ZL-5		4.18 KV BUS NBO1 IND. LIGHT		E-03NE01		1	0116B6708G5W	
190	NB ZL-6		4.18 KV BUS NBO2 IND. LIGHT		E-03NB04		4		
191	PB ZL-7		4.18 KV BUS PBO3 IND. LIGHT		E-03PBO1		NV		
192	PB ZL-8		4.18 KV BUS PBO4 IND. LIGHT		E-03PBO2		NV		
193	NB ZL-9		4.16 KV BUS NBO1 SYNC-SCOPE LTS	WESTINGHOUSE 1611632	E-03NBO1		1	LAMP REC. " S-14 W/1611633	
194	NB ZL-10		NBO2		E-03NB04		4		
195	NE ZL-28,29		DG NE01 AT VOLT/FREQ	GE-ET-16	E-23NE10		1	0116B6708 G3W	
196	NE ZL-30,31		DG NE02 AT VOLT/FREQ		E-23NE11		4		
197	NE 11-5		DGNE01 REGULATOR NULL IND	SIGMA 1136 H	E-23NE12		1*	1136 HC 002 MADC. *15-0-15 VOLTS DC.	525
198	NE 11-6		DGNE02		E-23NE13		4*		525
199	PK-HIS-2		480 V AC FEED TO BATT CHGR PK21	ELECTRO-TECH 20P	E-03PK10		1	ZOPHDO90854-011 (003)	B4C
200	PK-HIS-3		PK22		E-03PK11		4		B4C
201	PK-HIS-4		PK23		E-03PK12		1	20PHDO90854-011	520
202	PK-HIS-5		PK24		E-03PK13		4		520



SNIPPS  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO18  
BECHTEL DNG. NO. 10466-J-24016 SH. NO. 42

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
1	NK 11 1	2	NK21 BAT CHARGER AMPS	SIGMA 1151H	E-01NK01	CBV	1	LEGEND DC AMPS 0-500A 1151 HL 40 DCMV 503	0
2	NK 11 2		NK11 BAT AMPS		E-01NK01		1	DC AMPS 800-0-800A 1151 HC 50 DCMV 503	
3	NK E1 1		NK01 125 VDC BUS VOLTS		E-01NK01		1	LEGEND DC VOLTS 0-150 v 1151 HL 150 DCV	
4	NK 11 3		NK22 BAT CHARGER AMPS		E-01NK02		2	LEGEND DC AMPS 0-500A 1151 HL 40 DCMV 503	
5	NK 11 4		NK12 BAT AMPS				2	DC AMPS 800-0-800 1151 HC 50 DCMV 503	
6	NK E1 2		NK02 125 VDC BUS VOLTS		↓		2	LEGEND DC VOLTS 0-150 v 1151 HL 150 DCV	
7	NK 11 5		NK23 BAT CHARGER AMPS		E-01NK01		3	LEGEND DC AMPS 0-500A 1151 HL 40 DCMV 503	
8	NK 11 6		NK13 BAT AMPS		↓		2	DC AMPS 800-0-800 1151 HC 50 DCMV 503	
9	NK E1 3		NK03 125 VDC BUS VOLTS		↓		3	LEGEND DC VOLTS 0-150 v 1151 HL 150 DCV	
10	NK 11 7		NK24 BAT CHARGER AMPS		E-01NK02		4	LEGEND DC AMPS 0-500A 1151 HL 40 DCMV 503	
11	NK 11 8		NK14 BAT AMPS		↓		4	DC AMPS 800-0-800 1151 HC 50 DCMV 503	
12	NK E1 4		NK04 125 VDC BUS VOLTS		↓		4	LEGEND DC VOLTS 0-150 v 1151 HL 150 DCV	
13	PA 11 1		13.8 KV FEED TO XFMR XPB03	SIGMA 1146V	E-03PB01	CBV	NV	LEGEND: AMPS 0-1200A 1146 YB 1 DCMA	
14	PA 11 2		13.8KV FEED FROM UNIT AUX XFMR XMA02 TO BUS PA01	SIGMA 1151V	E-03PA01	CBV	NV	AMPS 0-4000A 1151 YB 1 DCMA	
15	PA 11 7		13.8 KV FEED FROM UNIT AUX XFMR XMA02 TO BUS PA02		E-03PA06	CBV	NV	↓	
16	WR 11 1		13.8 KV FEED FROM STARTUP XFMR XWR01 TO PA01		E-03WR01	CBV	NV	LEGEND AMPS 0-3000A 1151 YB 1 DCMA	
17	WR 11 2		13.8 KV FEED FROM STARTUP XFMR XWR01 TO BUS PA02		E-03WR01	CBV	NV	↓	
18	PB 11 2		13.8 KV FEED TO XFMR XPB04	SIGMA 1146V	E-03PB02	CBV	NV	LEGEND AMPS 0-1200A 1146 YB 1 DCMA	
19	PG 11 1		13.8 KV FEED TO L.C. PG11, PG25 & PG13	SIGMA 1146V	E-03PG01			AMPS 0-400A 1146 YB 1 DCMA	
20	PG 11 2		13.8 KV FEED TO L.C. PG15, PG17 & PG19		E-03PG02			↓	
21	PA E1 1		13.8 KV BUS PA01 VOLTS	SIGMA 1146H	E-03PA01	CBV	NV	LEGEND KILOVOLTS 0-1B 1146 HL 150 ACV	
22	PA E1 2		13.8 KV BUS PA02 VOLTS	SIGMA 1146H	E-03PA06	CBV	NV	↓	
23	PG 11 3		13.8 KV FEED TO L.C. PG14, PG18 & PG20	SIGMA 1146V	E-03PG04			LEGEND "AMPS" 0-400A 1146 YB 1 DCMA	

SHIPPING  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

SECRETAL DWG. NO. 10466-J-24016  
PANEL NO. RL015  
SH. NO. 43

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
24	PC 11 4	2	13.8 KV FEED 80 L.C. PG12, PG18 & PG25	SIGMA 1146 V	E-03PG03	CBV	NY	LEGEND "ARPS" O-400A 1146 VBI DCMA	O
25	PA ZL-1		13.8 KV BUS PAB1 IND LIGHT UNIT AUX SOURCE 13.8 KV FOR BKR 252PA0101	B.E. ET-15 W/WHITE LAMP ELECTROSWITCH	E-03PA01	CBV	NY	0116P-67086 5W	
26	PA NIS 1		STARTUP SOURCE 13.8 KV FOR BKR 252PA0110	ZOP	E-03PA18	CBV	NY	ZOPHD 090BS4-011 (003) B&C	
27	PA NIS 8		STARTUP XFMR XMR01 TO XFMR INB02		E-03PA12				
28	MB NIS 1		UNIT AUX SOURCE 13.8 KV FOR BKR 252PA0211		E-03MB11				
29	PA NIS 13		STARTUP SOURCE 13.8 KV FOR BKR 252PA0202		E-03PA11				
30	PA NIS 8		13.8 KV SOURCE SELECTOR SWITCH	ELECTROSWITCH	E-03PA13				
31	PA NS 7		13.8 KV L.C. FOR BKR 252PA0105	ZOP	E-03PA12			ZOKD-0914CB-002	
32	PC NIS 1		13.8 KV L.C. FOR BKR 252PA0105	ELECTROSWITCH	E-03PG10			ZOPHD 090BS4-011 (003) B&C	
33	PB NIS 1		13.8 KV XFMR FOR BKR 252 PA0154		E-03PB10				
34	PC NIS 2		13.8 KV L.C. FOR BKR 252 PA0154		E-03PG10				
35	PA NIS 3		13.8 KV SITE FOR BKR 252PA0102		E-03PA14				
36	PA NIS 4		252PA0103						
37	PA NIS 11		252PA0208						
38	PA NIS 12		252PA0210						
39	PG NIS 3		13.8 KV L.C. XFMR FOR BKR 252PA0207		E-03PG11				
40	PB NIS 2		13.8 KV XFMR04 FOR BKR 252PA0208		E-03PB11				
41	PC NIS 4		13.8 KV L.C. FOR BKR 252PA0208		E-03PG10				
42	PC NIS 24		480 V L.C. FOR BKR 52PC2501		E-03PG14				
43	NC NIS 5		480 V L.C. FOR BKR 52PC1101		E-03PG13				
44	PC NIS 8		480 V L.C. FOR BKR 52PC1301		E-03PG13				
45	PC NIS 9		480 V L.C. FOR BKR 52PC1501		E-03PG13				
46	PC NIS 14		480 V L.C. FOR BKR 52PC1701		E-03PG14				





SHUPPS  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. R1017  
DECHTEL DWG. NO. 10466-J-24016 BH. NO. 46

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
100	EM HIS-3	2	REST SPLY TO CTMT SPRAY PUMP B	CUTLER HARNER E-30 JY9	E-03BN04	CBV	4		0
101	EM HIS-8		CTMT SPRAY PMP B CONTROL	ELECTROSWITCH 20 P	E-03EN01			20PHD-090854-010 (004)	B4C
102	EM HIS-7		CTMT RECIRC SURP TO CTMT SPRAY PMP B	CUTLER HARNER E-30 JY9	E-03EN02				
103	EM HIS-18		SPRAY ADD TR ISO VLV		E-03EN04				
104	EM PI-18		CTMT SPRAY PMP B DISCH PRESS	SIGMA HSI VB	E-03EN05	BECHTEL	NV		
105	EM FI-14A		SPRAY ADD TR DISCH FLOW				NV		
106	EM LI-17		SPRAY ADD TR LEV				4		
107	EM HIS-12		CTMT SPRAY SYS DISCH ISO VLV	CUTLER HARNER E-30 JY9	E-03EN03	CBV	4		
108	EM FI-11		CTMT SPRAY PMP B DISCH FLOW	SIGMA HSI VB CUTLER HARNER E-30 JY9	E-03EN05	BECHTEL	NV		
109	EM HIS-88085		REST TO SI PMP SUCT		E-03BN06	CBV	4		
110									
111	EM HIS-8828B		SI PMP B SUCT ISO VLV	CUTLER HARNER E-30 JY9	E-03EM09	CBV	4		
112	EM HIS-5		SI PMP B CONTROL	ELECTROSWITCH 20 P	E-03EM01				
113	EM PI-823		SI PMP B DISCH PRESS	WESTINGHOUSE MODEL 252	E-03SC01 M-761-142, C6	WESTINGHOUSE	NV	20 PHD 090854-010 (004)	B4C
114	EM FI-822		SI PMP B DISCH FLOW		E-03SC01 M-761-142, C6			DWG # M-768-2	
115	EM HIS-8824		CVCS TO SI PMP ISO VLV	CUTLER HARNER E-30 JY9	E-03EM11	CBV	4		
116	EM HIS-8807B		CVCS TO SI PMP ISO VLV		E-03EM08				
117	EM HIS-8813		SI RETURN TO REST ISO VLV		E-03BN08				
118	EM HIS-8812A		VALVE MV-8813 POWER LOCKOUT	DY11	E-03BN08				
119	EJ HIS-8804B		RHR SUPPLY TO SI PMP B ISO VLV	CUTLER HARNER E-30 JY9	E-03EJD4B				
120	EM HIS-8814B		SI PMP B RETURN TO REST ISO VLV		E-03EM03		1		
121	EM HIS-8821B		SI PMP B TO RCS COLD LEG INJ		E-03EM11		4		
122	EM HIS-8802B		SI PMP B DISCH HOT LEG ISO VLV		E-03EM13A				



ENCLOSURE  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL017  
BECHTEL DWG. NO. 10466-J-24016 SH. NO. 47

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
123	EM HIS-88028A	2	VALVE HV-88028 POWER LOCKOUT	CUTLER HAMMER E-30 DY 11	E-03EM12A	CBV	4		0
124	EM HIS-88025		SAFETY INJ COLD LEG 150 VLV	CUTLER HAMMER E-30 JY9					
125	EM HIS-88035A		VALVE HV-88035 POWER LOCKOUT	DY11					
126	EM HIS-8821A		SI PMP A TO RCS COLD LEG 1INJ	CUTLER HAMMER E-30 JY9	E-03EM11		1		
127	EM HIS-8823		SI/ACCUR 1INJ TEST LINE 150 VLV	JY15	E-03EM04				
128	EM HIS-88090		SI B/RCS HTLG 4 TEST LINE 150 VLV	JY15	E-03EM05		NV		
129	EM HIS-88098		SI A/RCS HTLG 2 TEST LINE 150 VLV						
130	EM HIS-88094		SI B/RCS HTLG 1 TEST LINE 150 VLV						
131	EM HIS-8824		SI PMP B TEST LINE 150 VLV	JY18	E-03EM04		1		
132	EM HIS-8881		SI PMP A TEST LINE 150 VLV						
133	EM HIS-8809C		SI A/RCS HTLG 3 TEST LINE 150 VLV	JY15	E-03EM05		NV		
134	EM HIS-8802A		SI PMP A DISCH HOT LEG 150 VLV	JY9	E-03EM13A		1		
135	EM HIS-8802AA		VLV HV-8802A POWER LOCKOUT	DY11					
136	EM FI-818		SI PMP A DISCH FLOW	WESTINGHOUSE MODEL 252	E-03SC02 M-761-144 C7	WESTINGHOUSE	NV	DRG # 8188-2	
137	EM PI-818		SI PMP A DISCH PRESS	ELECTROSWITCH 20 P					
138	EM HIS-4		SI PMP A CONTROL	CUTLER HAMMER E-30 JY9	E-03EM01	CBV	1	20 PHD-090854-010 (004)	BIC
139	EM HIS-8123A		SI PMP A SUCT 150 VLV		E-03EM09				
140	EM HIS-8814A		SI PMP A RETURN TO RWST 150 VLV		E-03EM03				
141	EM FI-5		CI/TNT SPRAY PMP A DISCH FLOW	SIGMA 1151 VB	E-03EN05	BECHTEL	NV		
142	EM PI-4		CI/TNT SPRAY PMP A DISCH PRESS				NV		
143	EM HIS-8		CI/TNT SPRAY SYS DISCH 150 VLV	CUTLER HAMMER E-30 JY9	E-03EN03	CBV	1		
144	EM FI-13A		SPRAY ADD TR DISCH FLOW	SIGMA 1181 VB	E-03EN05	BECHTEL	NV		
145	EM LI-18		SPRAY ADD TR LEV				1		

SHIPPING JOB NO. 10466		BILL OF MATERIAL		REMARKS		REV.	
REF. SPECIFICATION 10466-J-200		MAIN CONTROL PANEL		20PHD-090BS4-010 (004)		0	
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP
146	EN HIS-3	2	CTRT SPRAY PMP A CONTROL	ELECTROSWITCH 20 P	E-03EN01	CBV	1
147	EN HIS-4		PRST SPLY TO CTRT SPRAY PMP A	CUTLER HAMMER E-30 JY9	E-03EN04		
148	EN HIS-15		SPRAY ADD TR DISCH 150 VLV		E-03EN04		
149	EN HIS-1		CTRT RECIRC SUMP TO CTRT SPRAY PMP A		E-03EN02		
150	EN HIS-0702A		RCS HTLG 1 TO RHR PMP A SUCT		E-03EB12A		4
151	EJ HIS-0701A		RCS HTLG 1 TO RHR PMP A SUCT		E-03EJ05A		1
152	EN HIS-0812A		PRST TO RHR PMP A SUCT		E-03EN03		
153	EJ HIS-0811A		CTRT RECIRC SUMP TO RHR PMP A SUCT	ELECTROSWITCH 20 PHD	E-03EJC6A		
154	EJ HIS-1		RHR PMP A CONTROL	CUTLER-HAMMER E-30 JY9	E-03EJ01		
155	EJ HIS-61B		RHR PMP A MINIFLOW VLV	WESTINGHOUSE MODEL 252	E-03EJ08	WESTINGHOUSE	NV
156	EJ PI-814		RHR PMP A DISCH PRESS	HAGEN MAN/AUTO STATION W/POT	M-761 140 CS		DWG # 7168-2
157	EJ FR-818		RHR HE A BYPASS	CUTLER HAMMER E-30 JY9	M-761 141 CS		DWG # 7168-31
158	EJ HIS-8806A		RHR TO CYCS 150 VLV		E-03EJ04A	CBV	1
159	EJ HIS-808		RHR HX A FLOW CTRL	HAGEN MODEL 154	E-03EJ12	WESTINGHOUSE	NV
160	EJ HIS-8716A		RHR PMP A HOT LEG RECIRC 150	CUTLER HAMMER E-30 JY9	E-03EJ03	CBV	1
161	EJ FI-818		RHR TO ACCUM INJ LOOP 1 & 2 FLOW	WESTINGHOUSE MODEL 252	E-03SC01 M-761 140 CS	WESTINGHOUSE	NV
162	EJ HIS-8825		RHR TEST LINE 150 VLV	CUTLER HAMMER E-30 JY15	E-03EJ07	CBV	1
163	EJ HIS-8803A		RHR TO COLD LEG INJ LOOPS 1 & 2	JY9	E-03EJ09A		
164	EJ HIS-8809AA		VLV HV-8809A POWER LOCKOUT	DY11			
165	EN HIS-8364		SI TEST LINE SYS 150 VLV	CUTLER HAMMER E-30 JY15	E-03EM12		1
166	EJ HIS-8850A		RHR A TO COLD LEG TEST LINE 150 VLV		E-03EJ07		1
167	EN HIS-8871		SI TEST LINE SYS 150 VLV		E-03EM04		4
168	EJ HIS-8898B		RHR B TO SI PMP TEST LINE 150 VLV		E-03EJ07		4

PANEL NO. RL017  
 BECHTEL DWG NO. 10466-J-24016 SH NO. 48

20PHD-090BS4-010 (004) B4C 0

20PHD-090BS4-010 (004) B4C 0

20PHD-090BS4-010 (004) B4C 0

20PHD-090BS4-010 (004) B4C 0

20PHD-090BS4-010 (004) B4C 0

**BILL OF MATERIAL  
MAIN CONTROL PANEL**

SHAWNEE  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BECHTEL DWG. NO. 10466-J-2401G

PANEL NO. RL017

BH NO. 49

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
169	EM HIS-8807A	2	CYCS TO SI PMP SUCT 150 VLV	CUTLER HARNER E-30 JY9	E-03EM06	CBV	1		0
170	EJ HIS-8809Z		RHR TO COLD LEG INJ LOOPS 3 & 4		E-03EJ09A		4		
171	EJ HIS-8809BA		VLV HV-8809B POWER LOCKOUT	DYII			4		
172	EJ HIS-8848		RHR/SI HOT LEG RECIRC 150 VLV	CUTLER HARNER E-30 JY9	E-03EJ09A		4		
173	EJ HIS-8840A		VLV HV-8840 POWER LOCKOUT	DYII					
174	EJ FI-815		RHR TO ACCUM INJ LOOP 3 & 4 FLOW	WESTINGHOUSE MODEL 252	E-035CO2 M-761-146 CB	WESTINGHOUSE	NV	DWG # 8768-2	
175	EJ FR-819		RHR HI B BYPASS	HAGEN MAN AUTO STATION W/POT	E-035CO4 M-761-147 CB			DWG # 8768-31	
176	EJ HI8-8718B		RHR PUMP B HOT LEG RECIRC 150	CUTLER HARNER E-30 JY9	E-03EJ03	CBV	4		
177	EJ HI6-887		RHR HX B FLOW CTRL	HAGEN MODEL 154	E-03EJ12	WESTINGHOUSE	NV	DWG # 8768-11	MODIFIED 016
178	EJ PI-815		RHR PMP B DISCH PRESS	WESTINGHOUSE MODEL 252	E-035CO1 M-761-142 C6		NV	DWG # 8768-2	
179	EJ HIS-2		RHR PMP B CONTROL	ELECTROSTION 20PHD	E-03EJ01	CBV	4	20PHD-090654-010 (004)	B4C
180	EJ HIS-811		RHR PMP B MINIFLOW VLV	CUTLER HARNER E-30 JY9	E-03EJ06				
181	EJ HIS-8701B		RCS HI LG 4 TO RHR PMP B SUCT		E-03EJ05B		1		
182	88 HIS-8702B		RCS HI LG 4 TO RHR PMP B SUCT		E-03BB12B		4		
183	88 HIS-8812B		RST TO RHR PMP B SUCT		E-03BN03				
184	EJ HIS-8811B		CTBT RECIRC SURP TO RHR PMP B SUCT		E-03EJ06B				
185	88 HIS-8888A		RWST TO SI PUMP SUCT		E-03BN06		1		
186									
187	EG HIS-101		COB TO RHR HI B	CUTLER HARNER E-30 JY9	E-23E607	CBV	1		
188	EG HIS-102		COB TO RHR HI B				4		
189									
190	EM ZL-8802AA		SI PMP B DISCH 150 VLV P05N	BE ET-18	E-03EM13B	CBV	4	MODEL 011686708G-3G	
191	EM ZL-8802BA		SI PMP B DISCH 150 VLV P03N				1		

SUTOPS  
JOB NO. 10488  
REP. SPECIFICATION 10488-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL017  
BECHTEL DRWG. NO. 10488-J-2018 SH. NO. 50

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DRG.	SUPPLIER	SEP. GROUP	REMARKS	RFV
192	BN ZL 8813	2	SI RETURN TO RWST ISO VLV POSN	GE ET-16	E-03BNO7	CBV	1	MODEL 0116 B6708G-3G	0
193	EJ ZL 88098A		RHR TO COLD LEG INJ LOOPS 31 & VLV POS		E-03EJD9B		1		
194	EJ ZL 8809A		RHR SI HOT LEG RECIRC LOOPS 213 VLV POS				1		
195	EJ ZL 8809M		RHR COLD LEG INJ LOOPS 112 VLV POS				4		
196									
197									
198									
199									
200	BN HIS-8812A		ISO TEST P.B. FOR BN HIS 8812A	CUTLER HAMMER E-30 EY23	E-03BNO3	CBV	1	MODIFIED 009	
201	BN HIS-8812B		ISO TEST PB FOR BN HIS 8812B				4	MODIFIED 009	
202							4		
203	EM ZL-8835A		SI COLD LEG INJ ISO VLV POSN	GE ET-16	E-03EM13B	CBV	1	0116 B6708G 3G 3R	
204	BN HIS-8800A		RWST TO REFUEL POOL ISO VLV	CUTLER HAMMER E-30 JY15	E-03BNO2		4		
205	BN HIS-8800B						4		
206	SA HS-26		SA 66-Y LAMP TEST	CH E-30	E-03SA33	CBV	1	W/TWO FLA4 CONTACT BLOCKS	510
207	SA HS-27		SA 66-Z LAMP TEST				4		510
208	SA HS-28		SA 66-X LAMP TEST				2		510



ENCLIPS  
 JOB NO. 10488  
 REF. SPECIFICATION 1988B-100

BILL OF MATERIAL  
 MAIN CONTROL PANEL

PANEL NO. E1018  
 BECHTEL DWG. NO. 10488-J-0018  
 SH. NO. 52

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP GROUP	REMARKS	REV
1	SA 66-Y	2	STATUS LIGHT BOX	BETA 300W	E-03SA22	BECHTEL	4	DWG # E-094-0004 (SEE NOTE 5)	0
2	SA 66-X		STATUS LIGHT BOX				1		
3A	BN LI-810		REST LEV	WESTINGHOUSE MODEL 252	E-035B08D M-761-133 C1	WESTINGHOUSE	1	DWG # M768-2	
3B	BN LI-812		REST LEV		E-035B08D M-761-137 C3		1		
4	BN TI-2		REST TEMP	SIGMA 1151 VB	E-03BMO7	BECHTEL	1		
5									
6	GN PR-834		CONT ATMOS PRESS	HICAN OPTIMAC 2 PER	E-035CO1 CO3R101 M-761-142 C6	WESTINGHOUSE	NY	DWG # M768-12	
7A	EM PI-847		BORDN INJ TK DISCH PRESS	WESTINGHOUSE MODEL 252	E-035CO2 M-761-144 C7			DWG # M768-2	
7B	EM TI-842		BORDN INJ SURGE TK TEMP						
8	EJ TR-813		RHR HI INLET/OUTLET TEMP / FLOW	HICAN OPTIMAC 3 PER	E-035CO1,02 M-761-146 C8/147C8			DWG # M768-17	M-761-142 C6
9	EM-FI-917A		CENT CHRG PPA TO BIT FLOW	WESTINGHOUSE MODEL 252	E-035B08		1		
10	EM-FI-917B			WESTINGHOUSE OIM			4		
11	EM-HI-8837A		BIT INLET ISO VAL BYPASS INDICATION	WESTINGHOUSE ELECTRIC			1	# 2381C99A18 DWG # M-761-463	
12	EM HIS-2		BORDN INJ RECIRC PRP B CONTROL	20LD	E-03EMO6	CBV	4	20LD-090454-004	
13	EM HIS-1		BORDN INJ RECIRC PRP A CONTROL				1		
14	EJ TR-812		RHR HI INLET/OUTLET TEMP / FLOW	HICAN OPTIMAC 3 PER WESTINGHOUSE OIM	E-035CO1 M-761-140 C5	WESTINGHOUSE	NY	DWG # M768-12	
15	EM-HI-8837B		BIT INLET ISO VAL BYPASS INDICATION	WESTINGHOUSE OIM			4	# 2381C99A20 DWG # M-761-463	
16	EJ FI-888		RHR RECIRC FLOW	WESTINGHOUSE MODEL 252	E-035CO1 M-761-140 C5	WESTINGHOUSE	NY	DWG # M768-2	
17	BN LR-810		REST LEV	HICAN OPTIMAC 2 PER	E-035CO1 M-761-142 C6	WESTINGHOUSE		DWG # M768-12	
18A	EP PI-862		ACCOR TR B PRESS	WESTINGHOUSE MODEL 252	E-035CO1 M-761-140 C5			DWG # M768-12	M-761-140 C5
18B	EP PI-862		PRESS					DWG # M768-2	
18C	EP LI-852		LEV						
18D	EP LI-853		LEV						

SHUPPS JOB NO. 10400 REP: SPECIFICATION 1000J-200		BILL OF MATERIAL MAIN CONTROL PANEL					PANEL NO. RL01B DWG NO. 1040J-2018 SH. NO. 53		REV.
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP GROUP	REMARKS	REV.
19A	BN 11-931	2	FIRST LEV	WESTINGHOUSE MODEL 252	E-035500D M-761135 C2	WESTINGHOUSE	4	DWG # M768-2	0
19B	BN 11-933		FIRST LEV		E-035500D M-761139 C4		4		
20	BN 11-5		FIRST TEMP	SIGMA 1181 V8	E-0355007	BECHTEL	4		
21A	EP 11-960		ACCUM TR A PRESS	WESTINGHOUSE MODEL 252	E-0355001 M-761140 C5	WESTINGHOUSE	NY	DWG # M768-2	
21B	EP 11-961		PRESS		E-0355001 M-761142 C6				
21C	EP 11-950		LEV		E-0355001 M-761140 C5				
21D	EP 11-951		LEV		E-0355001 M-761142 C6				
22A	EP 11-954		ACCUM TR C PRESS		E-0355002 M-761144				
22B	EP 11-965		PRESS		E-0355002 M-761146 C8				
22C	EP 11-954		LEV		E-0355002 M-761144 C7				
22D	EP 11-955		LEV		E-0355002 M-761146				
23A	EP 11-966		ACCUM TR D PRESS		E-0355002 M-761144 C7				
23B	EP 11-967				E-0355002 M-761146 C8				
23C	EP 11-956		LEV		E-0355002 M-761144 C7				
23D	EP 11-957				E-0355002 M-761146 C8				
24	SB HS-43		SPRAY ACT, CTMT 150 PHB	ELECTROSWITCH	E-0355014	CBV	144	CANNED ASSEMBLY, CAT# 100-99-1	
25	SB HS-44					WESTINGHOUSE			
26	EM HC-8837A		BIT INLET 150 VLV BYPASS CONTROL	WESTINGHOUSE OIM		WESTINGHOUSE		# 2381C99A17 DWG # M-761-463	
27	EM HS-8805B		BORON INJ 150 FROM CHG PPS 150 VLV	CUTLER HANMER E-30 J79	E-0355002	CBV	4		
28	EM HS-8803A		BORON INJ 150 FROM CHG PPS 150 VLV						
29	EM HC-8837B		BIT INLET 150 VLV BYPASS CONTROL	WESTINGHOUSE OIM		WESTINGHOUSE	4	# 2381C99A19 DWG # M-761-463	
30	SB HS-47		CTMT 150 PH-A	ELECTROSWITCH	E-0355014	CBV	144	CANNED ASSEMBLY, CAT# 100-99-1	
31	SB HS-45		SPRAY ACT, CTMT 50 P-1B						

SHUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10488-J-000

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL018  
BECHTEL DWG. NO. 10488-J-24016 SH. NO. 54

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV
32	SB HS-46	2	SPRAY ACT, LTMT ISO PHB	ELECTROSWITCH	E-03EB14	CBY	14A	CANNED ASSEMBLY, CAT# 100-99-1	0
33	EP HIS-8875B		ACCUM TK B N2 SUPPLY ISO VLV	CUTLER HAMMER E-30 JY15	E-03EP05		NV		
34	EP HIS-8878B		B FILL LINE ISO VLV				NV		
35	EP HIS-8808B		B OUTLET ISO VLV		E-03EP02A		4		
36	EP HIS-8875A		A N2 SUPPLY ISO VLV		E-03EP03		NV		
37	EP HIS-8878A		A FILL LINE ISO VLV				NV		
38	EP HIS-9808A		A OUTLET ISO VLV		E-03EP02A		1		
39	EP HIS-8875C		C N2 SUPPLY ISO VLV		E-03EP03		NV		
40	EP HIS-8878C		C FILL LINE ISO VLV		E-03EP04		NV		
41	EP HIS-8808C		C OUTLET ISO VLV		E-03EP02A		1		
42	EP HIS-8875D		D N2 SUPPLY ISO VLV		E-03EP05		NV		
43	EP HIS-8878D		D FILL LINE ISO VLV				NV		
44	EP HIS-8808D		D OUTLET ISO VLV		E-03EP02A		4		
45	SB HS-46		CENT ISO PH-A	ELECTROSWITCH	E-03SB14		14A	CANNED ASSEMBLY, CAT# 100-99-1	
46	EP HIS-8877C		ACCUM TK C TEST LINE ISO VLV	CUTLER HAMMER E-30 JY15	E-03EP03		NV		
47	EP HIS-8877D		D		E-03EP05		NV		
48	EM HIS-8870B		BIT TK TO BORON INJ SURGE TK		E-03EM10		4		
49	EM HIS-8870A						1		
50	EM HIS-8801B		BIT DISCH ISO VLV	JY4	E-03EM02		4		
51	EM HIS-8801A						1		
52	EP HIS-8877B		ACCUM TK B TEST LINE ISO VLV	JY15	E-03EP05		NV		
53	EP HIS-8877A		A		E-03EP03		NV		
54	EP HIS-8880		N2 SUPPLY ACCUM. TKS.		E-03EP01		4		



SALUPS  
 JOB NO 10488  
 REV. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
 MAIN CONTROL PANEL

PANEL NO. RLO18  
 BECHTEL DWG. NO. 10488-J-2018  
 SH. NO. 55

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SFP. GROUP	REMARKS	REV.
55	EP HC-943	2	N <sub>2</sub> VENT ACCUM SUPPLY LINE	HAGAN 154	E-03EP06	WESTINGHOUSE	NV	DWG. # M-768-11	0
56	EP HIS-8879C		ACCUM TR C TEST LINE ISO VLV	CUTLER HAMMER E-30 JY15	E-03EP04	CBV	NV		
57	EP HIS-8879D		D				NV		
58	GN PI-934		CTMT ATMOS. PRESS	WESTINGHOUSE MODEL 252	E-035B08D M-761-139 C4	WESTINGHOUSE	4	DWG. # N-768-2	
59A	EJ LI-8		CTMT RECIRC SUMP LEVEL	SIGMA 1151 VB	E-03EJ11	BECHTEL	4	LEGEND: INCHES 0-156	1151VB10DCV 501
39B	LF-LI-9		CTMT NORM SUMP LEVEL		E-03EJ12		1	LEGEND: INCHES 0-156	1151VB10DCV 501
60	GN PI-936		CTMT ATMOS. PRESS	WESTINGHOUSE MODEL 252	E-035B08D M-761-135 C2	WESTINGHOUSE	4	DWG. # N-768-2	
61	EM HIS-8843		SIS TEST LINE ISO VLV	CUTLER HAMMER E-30 JY15	E-03EM04	CBV	4		
62	EM HIS-8882		SIS TEST LINE ISO VLV		E-03EM05		NV		
63	GN PI-935		CTMT ATMOS. PRESS	WESTINGHOUSE MODEL 252	E-035B08D M-761-137 C3	WESTINGHOUSE	1	DWG. # N-768-2	
64A	LF-LI-10		CTMT NORM SUMP LEVEL	SIGMA 1151 VB	E-03EJ11	BECHTEL	4	LEGEND: INCHES 0-156	1151VB10DCV 501
64B	EJ LI-7		CTMT RECIRC SUMP LEVEL		E-03EJ12		1	LEGEND: INCHES 0-156	1151VB10DCV 501
65	GN PI-937		CTMT ATMOS. PRESS	WESTINGHOUSE MODEL 252	E-035B08D M-761-135 C1	WESTINGHOUSE	1	DWG. # N-768-2	
66	EP HIS-8879B		ACCUM TR B TEST LINE ISO VLV	CUTLER HAMMER E-30 JY15	E-03EP04	CBV	NV		
67	EM HIS-8888		ACCUM TR FILL LINE ISO VLV		E-03EM12		4		
68	EP HIS-8879A		ACCUM TR A TEST LINE ISO VLV		E-03EP04		NV		
69	EM HIS-8883		BORON INJ RECIRC PMP TO BHT ISOL VLV		E-03EM10	CPV	1		
70	EP-HIS-8950B		ACCUM TR B VENT VLV		E-03EP09		1		
71	EP-HIS-8950D		C				1		
72	EP-HIS-8950F		D				1		
73	EP-HIS-8950A		A				4		
74	EP-HIS-8950C		B				4		
75	EP-HIS-8950E		C				4		

SKUPPS JOB NO. 10488 REF: SPECIFICATION 10466-J-200		BILL OF MATERIAL MAIN CONTROL PANEL				PANEL NO. RLO18 SH. NO. 56		BECHTEL DRG. NO. 10488-J-20019		REV.
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DRG.	SUPPLIER	SEP GROUP	REMARKS	REV.	
76	EP ZL-8808CA	2	ACDM TK C OUTLET VLV POSH	6E ET-18	E-03EP02B	CBV	4	01686708G 3R	0	
77	EP ZL-8808DA		D				1			
78	EP ZL-8808BA		B				1			
79	EP ZL-8808AA		A				4			
82	DN TI-60		CTMT COOLER A INLET AIR TEMP	SIGMA 1151VB	E-03GN05	BECHTEL	1			
83	DN TI-61		B				4			
84	DN TI-62		C				1			
85	DN TI-63		D				4			
86	SB HS-51		CTMT SPRAY RESET A	CUTLER HAMMER E-30 AA	E-03SS003 E-03SS004,15	CBV	1			
87	SB HS-52		CTMT PHASE B RESET A				1			
88	SB HS-53		PHASE A ISO RESET A				1			
89										
90	SB HS-54		CTMT SPRAY RESET B	CUTLER HAMMER E-30 AA	E-03SS003 E-03SS004,15	CBV	4			
91	SB HS-55		CTMT PHASE B RESET B				4			
92	SB HS-56		PHASE A ISO RESET B				4			
93										
94	SA HS-9		CONTROL BLDG VENT ISO A	CUTLER HAMMER E-30 AC	E-03SA27	CBV	1	MODIFIED	00B	
95	SA HS-10		FUEL BLDG VENT ISO A				1		00B	
96	SA HS-11		CTMT PURGE ISO A				1		00B	
97	SA HS-12		AUX F.W. ACTUATE A				1		00B	
98	SA HS-13		CONTROL BLDG VENT ISO B				4		00B	

SNUPPS  
 JCS NO. 10488  
 REF. SPECIFICATION 10486-J-200

BILL OF MATERIAL  
 MAIN CONTROL PANEL

PANEL NO. RLO18  
 BECHTEL DWG. NO. 10486-J-2018  
 SH. NO. 57

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
99	SA-HS-14	2	FUEL BLOC VENT ISO B	CUTLER HAMMER E-30 AC	E036A27	CBV	4	MODIFIED 008	0
100	SA-HS-15		CTMT PURGE ISO B				4	008	
101	SA-HS-16		AUX FW ACTUATE B				4	008	
102	SB HS-17		FEEDWATER ISO RESET A	AA	E035803,04,15		1		
103	SB HS-18		FEEDWATER ISO RESET B	AA			4		
104	RWB18		ANNUNCIATOR UNIT	RILEY	E-03RK04	BECHTEL	NV	(CUTOUT ONLY) (SEE NOTE 5)	
105	BB LI-53		REAC COOLANT LOOP LVL	SIGMA 1151 VB	E-03BB18	BECHTEL	NV		
106	SA-066Z		SEPARATION GRP 2 STATUS PNL	BETA EW	E-035A22	BECHTEL	2	E09A-0001 (SEE NOTE 5)	
107	KC HIS-253		FIRE PROT SYS HDR CTMT ISO	CUTLER-HAMMER E-30 JY9	E-03KC08	CBV	1		
108	<del>KC-HS-254</del>							DELETED PER 2RJ-2005-D	
109	SA HS-17		T.D AUX FW PUMP ACTUATE	CUTLER HAMMER E-30 JY9 AC	E-035A27	CBV	2	MODIFIED 008	
110	SB HS-60		MS ISO RESET A	AA	E-035B15104	CBV	1		
111	SB HS-61		MS ISO RESET B	AA	E-035B15104		4		
112	SB HIS-62		SI B RESET (RWST)	CUTLER HAMMER E-30 JY10	E-035B17	CBV	4		
113	SB HIS-63		SI A RESET (RWST)	JY10	E-035B17	CBV	1		
114									
115									
116	KCID-329-012		FIRE DETECTOR	PYR-A-LARM DI-2DS	E-03KC17	BECHTEL	NV	LOCATE INTERNAL TO RLO17/18	001
117	SA HS-23		SA-66-X MODE SELECT	ELECTROSWITCH 20RD	E-035A33	CBV	1	20KD-090654-005	510
118	SA-HS-24		SA-66-Y MODE SELECT				4		510
119	SA-HS-25		SA-66-Z MODE SELECT				2		510

ENCLIPS JOB NO. 10488 REF. SPECIFICATION 10488-J-200		BILL OF MATERIAL MAIN CONTROL PANEL				PANEL NO. RL019		DECTEL DWG. NO 10466-J-2406		REV. 58	
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.	REV.	
200	EG HIS-10	2	CCW SURGE TK B VERT VLV	CUTLER HAMMER E-30 JY9	E-03EG03	CBV	AV			0	
201	EG LI-2		CCW SURGE TK B LEV	SIGMA 1151 VB	E-03EG11	BECTEL	4			0	
202	EG HIS-2		DEMIN WTR TO CCW SURGE TK B	CUTLER HAMMER E-30 JY9	E-03EG02	CBV	AV				
203	EG HIS-14		ESW TO CCW TRAIN B		E-03EG04		4				
204	EG HIS-12		ESW TO CCW TRAIN B				4				
205	EG HIS-27		CCW PMP B	ELECTROSWITCH 20 P	E-03EG01A		4	20PHD-090864-009 (005)	B4C		
206	EG HIS-24		CCW PMP D	CUTLER HAMMER E-30 AB	E-03EG01B		4		B4C		
207	EG MS-16		CCW TRAIN B SPLY/RETURN VLV		E-03EG05AB		4				
208	EG TI-32		CCW HE B DISCH TEMP	SIGMA 1151 VB	E-03EG14	BECTEL	4				
209											
210	EG FI-55A		CCW SYS FLOW TO NON REDUN PIPING	SIGMA 1151 VB	E-03EG12	BECTEL	NV				
211	EG HS-69		CCW TO RADWASTE SYS ISO VLVs	CUTLER HAMMER E-30 AB	E-03EG0B	CBV	1				
212	EG HS-70		CCW TO RADWASTE SYS ISO VLVs				4				
213	EG HIS-71		CCW TO RCS ISO VLV	JY9	E-03EG09		4				
214	EG HIS-58		CCW TO RCS ISO VLV				1				
215	EG HIS-82		CCW RETURN FROM RCS ISO VLV		E-03EG10		4				
216	EG HIS-80				E-23EG06		4				
217	EG HIS-81				E-03EG09		1				
218	EG HIS-59						1				
219	EG ZL-16		CCW TRAIN B RETURN VLV IND LIGHTS	GE ET-18	E-03EG05A		4	0116B6708G	5G 5R		
220	EG ZL-54		CCW TRAIN B SPLY VLV IND LIGHTS		E-03EG05B		4				
221	EG ZL-89B		CCW RETURN FROM RADWASTE BLOS VLV		E-03EG0B		1	0116B6708G	3G 3R		
222	EG ZL-108		CCW RETURN FROM RADWASTE BLOS VLV				4				

SUNPPS  
JOB NO. 10000  
REF. SPECIFICATION 10000-J-000

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL010  
BH. NO. 59

BECHTEL DRWG. NO. 090854-010

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DRG.	SUPPLIER	REP GROUP	REMARKS	REV.
223	EG ZL-70A	2	CCW SPLY TO RAD WST BLDG VLV	GE ET-18	E-03EFO8	CBY	4	011686708G 3G 3R	0
224	EG ZL-69A		CCW SPLY TO RAD WST BLDG VLV	GE ET-18			1		
225	EF HIS-42		ESW B TO SERV WTR	CUTLER HAMMER E-30 JY9	E-03EFO3		1		
226	EF HIS-38		ESW B TO ULT HT SINK		E-03EFO6		4		
227	EF HIS-41		ESW A TO SERV WTR		E-03EFO3		1		
228	EF HIS-60		ESW B RETURN FROM CCB MIX B		E-03EFO4		4		
229	EF HIS-44		ESW B TO AIR CMPSR		E-03EFO1				
230	EF HIS-46		ESW B FROM CTRT AIR CLRS		E-03EFO9				
231	EF HIS-50				E-03EFO6				
232	EF HIS-48		ESW B FROM CTRT AIR CLRS BYP		E-03EFO10				
233	EF HIS-24		ESW B/SERV WTR ICORN		E-03EFO2		1		
234	EF HIS-52		ESW B TO CCB MIX B		E-08EFO5		4		
235	EF HIS-32		ESW B TO CTRT AIR CLRS		E-03EFO7		4		
236	EF HIS-34				E-03EFO9		4		
237	EF HIS-23		ESW A/SERV WTR ICORN		E-03EFO2		1		
238	EF FI-54		ESW B PWP DISCH FLOW	SIGMA 1181 V8	E-03EFO11	BECHTEL	4		
239	EF PI-2		ESW B PWP DISCH PRESS						
240	EF TI-62		ESW TRAIN B IEHP		E-03EFO11				
241	EF HIS-56A		ESW PWP B	ELECTROSWITCH 20 P	E-U3EFO1	CBY		20 PWD 090854-010 (004) B4C	
242									
243									
244									
245	EF HIS-55A		ESW PWP A	ELECTROSWITCH 20 P	E-U3EFO1	CBY	1	20 PWD 090854-010 (004) B4C	

SNLUPPS  
JOB NO. 10466  
PREF. SPECIFICATION 10466-3-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL019  
BECHTEL DWG. NO. 10466-J-2-016  
REV. NO. 60

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP GROUP	REMARKS	REV.
245									0
246	EF TI-61	2	ESW TRAIN A TEMP	SIGMA 1151 VB	E-03EF11	BECHTEL	1		0
247	EF PI-1		ESW A PHP DISCH PRESS		E-03EF09				
248	EF FI-53		ESW A PHP DISCH FLOW		E-03EF11				
249	EF HIS-31		ESW A TO CCB HI A	CUTLER HAMMER E-30 JY9	E-03EF05	CBV			
250	EF HIS-31		ESW A TO CCB HI A		E-03EF07				
251	EF HIS-33		ESW A TO CCB HI A		E-03EF09				
252	EF HIS-25		ESW A/SERV WTR X CONN		E-03EF02		4		
253	EF HIS-40		ESW B TO SERV WTR SYS		E-03EF03		4		
254	EF HIS-59		ESW A RETURN FROM CCB HI A		E-03EF04		1		
255	EF HIS-43		ESW A TO AIR CMPSR		E-03EF01				
256	EF HIS-45		ESW A FROM CCB HI A		E-03EF09				
257	EF HIS-26		ESW B/SERV WTR XCONN		E-03EF02		4		
258	EF HIS-47		ESW A FROM CCB HI A		E-03EF10		1		
259	EF HIS-49		ESW A FROM CCB HI A		E-03EF08				
260	EF HIS-37		ESW A TO ULT HT SINK		E-03EF06				
261	EF HIS-39		ESW A TO SERV WTR SYS		E-03EF03		4		
262									
263	EG 2L-53		CCW TRAIN "A" SPLY VLV AND LIGHTS	GE ET-18	E-03EG05B	CBV	1	011686708G 5G	
264	EG W5-15		CCW TRAIN "A" RETURN VLV	CUTLER HAMMER E-30 AB	E-03EG08AB				
265	EG TI-31		CCW HI A DISCH TEMP	SIGMA 1151 VB	E-03EG14	BECHTEL	1		
266	EG HIS-11		ESW TO CCB PHP TRAIN A	CUTLER HAMMER E-30 JY9	E-03EG04	CBV	1		
267	EG HIS-13		ESW TO CCB PHP TRAIN B						

SUNUPS JOB NO 10488 REP. SPECIFICATION 10466-J-200		BILL OF MATERIAL MAIN CONTROL PANEL				PANEL NO. R1019 SH. NO. 61		REV.	
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
269	EG HIS-21	2	CCW PWP A CONTROL	ELECTROSWITCH 20 P	E-03EG01A	CBV	1	20PHD 09085A-009(005)	B4C
270	EG HIS-23		CCW PWP C CONTROL		E-03EG01B		1	↓	B4C
271	EG XL-15		CCW TRAIN A RETURN VLV IND LIGHTS	GE ET-16	E-03EG05A		1	0116B6708G 5G 5R	
272	EG LI-1		CCW SURGE TR A LEV	SIGMA HSI VB	E-03EG11	BECHTEL	1		
273	EB HIS-9		CCW SURGE TR A VENT	CUTLER HAMMER E-30 JY9	E-03EG03	CBV	NV		
274	EB HIS-1		DEMIN WTR TO CCW SURGE TR A		E-03EG02		NV		
275	RJ XY-2		COMPUTER KEYBOARD	AYDIN	E-23RJO1	BECHTEL	NV	(SEE NOTE 5)	
276									
277	RK HS-10		ANNUNCIATOR ACK	GE CR-2940	E-03RKO6	CBV	NV	CR-2940UK 202B	MODIFIED 009
278	RK HS-11		ANNUNCIATOR TEST				NV	CR-2940 UK 202B	MODIFIED 009
279	EF HIS-66A		COOL TWR BYP TRAIN B	CUTLER-HAMMER E-30 JY9	E-U3EF05,07		4		
280	EF HIS-65A		COOL TWR BYP TRAIN A				1		
281	EF HIS-62A		COOL TWR FAN B/D CTRL	ELECTROSWITCH 20L	E-U3EF02A,2C		4	20LD-0904SA-009	
282	EF HIS-61A		COOL TWR FAN A/C CTRL				1	↓	
283									
284									
285	-E6-ZL-22-								
286	-E6-ZL-21-								
287	-E6-ZL-24-								
288	-E6-ZL-23-								
289	EF HIS-87		ESW A RAD MON ISO VLV	CUTLER HAMMER E-30 JY9	E-03EF12		1		
290	EF HIS-88		ESW B RAD MON ISO VLV				4		
291	EF HIS-62B		COOL TWR FAN B/D SPEED SEEL	ELECTROSWITCH 20LD	E-U3EF02A,2B		4	20LD0906B3-001	

DELETED 008







SHUPPS  
 JOB NO. 10888  
 REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
 MAIN CONTROL PANEL

PANEL NO. RL 020  
 BECHTEL DWG. NO. 10466-J-24016 SH. NO. 64

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP GROUP	REMARKS	REV.
22	EG-HIS-131	2	CCW RETURN CTMT ISO VLV	CUTLER-HAMMER E-30	E-03EG18	CBV	4		0
23	EG-HIS-127		SUPPLY						
24	EG-HIS-131A		RETURN						
25	EG-HIS-133								
26	EG-HIS-133A								
27	GS HIS-21		HYD PURGE OUTER CTMT ISO		E03G504				
28	GS HIS-11A		HYD ANAL B	ELECTROSWITCH MODEL 20L	E-03GS09			# 20LD0906D4-001	
29	GS HIS-29A		HYD RECOMB B	20K	E-03GS06			# 20KB-1202D4-001	
30	EG-HIS-130		CCW RETURN CTMT ISO VLV	CUTLER-HAMMER E-30	E-03EG17		1		
31	EG-HIS-126		SUPPLY		E-03EG18				
32	EG-HIS-130A		RETURN		E-03EG17				
33	EG-HIS-132								
34	EG-HIS-132A								
35	GS HIS-20		HYD PURGE INNER CTMT ISO		E03G503				
36	GS HIS-16A		HYD ANAL A	ELECTROSWITCH MODEL 20L	E-03GS09			# 20LD0906D4-001	
37	GS HIS-1A		HYD RECOMB A	20K	E-03GS06			# 20KB-1202D4-001	
38									
39									
40									
41									
42									
43	GT HIS-20		CTMT MINI PURGE EXH FAN & DMPR	ELECTROSWITCH 20L	E-03GT05	CBV	NV	20LD-040453-003	
44	GM HIS-1A		DG VENT SUP FAN 1A		E-03GM01		1	20LD-090452-001	

ENCLIPS  
JOB NO. 10488  
REF. SPECIFICATION 10-466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

DWG. NO. 1466J-2018  
REV. NO. 65  
PANEL NO. RL020

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG	SUPPLIER	REP GROUP	REMARKS	REV.
45	GM HIS-11A	2	DC VENT SUP FAN 1B	ELECTROSWITCH 20LD	E-03GMO1	CBV	4	20LD-090452-001	0
46	GT HIS-27		CTRT PURGE SYS DA SUP ISO	CUTLER HARNER E-3B JY9	E-03GT06		4		
47	GT HIS-4		CTRT BINI PURGE SUP AIR UNIT CTMT ISO		E-03GT04		4		
48	GT HIS-8		CTRT SHUTDOWN PURGE EXH ISO		E-03GT03		4		
49	GT HIS-11		CTRT BINI PURGE EXH ISO		E-03GT06		4		
50	GT HIS-29		CTRT PURGE EXH SYS DA ISO		E-03GT04		4		
51	GT HIS-9		CTRT SHUTDOWN PURGE EXH CTMT ISO		E-03GT06		1		
52	GT HIS-12		CTRT BINI PURGE EXH CTMT ISO		E-03GT06		1		
53	GT HIS-28		CTMT SD PURGE EXH SYS DA ISO		E-03GT06		1		
54	GT HIS-8		CTMT SHUTDOWN PURGE SUPPLY AIR UNIT CTMT ISO		E-03GT04		4		
55	GT HIS-26		CTMT PURGE SYS DA SUP ISO		E-03GT06		1		
56	GT HIS-5		CTRT BINI PURGE SUP AIR UNIT CTMT ISO		E-03GT03		1		
57	GT HIS-7		CTRT SHUTDOWN PURGE SUP AIR UNIT CTMT ISO		E-03GT06		1		
58	GT HIS-23		CTRT BINI PURGE SUP AIR UNIT	ELECTROSWITCH 20LD	E-03GT01		NV	20LD-090453-003	
59	GT HIS-1		CTRT SHUTDOWN PURGE SUP AIR UNIT				NV		
60									
61	GM AI-27		CTRT HUMIDITY	SIGMA 1151 VB	E-03GN05	BECTEL	NV	LEGEND: %RH SCALE 10-98 MODIFICATION 515	
62	GM AI-28			ELECTROSWITCH 20LD			NV	LEGEND: %RH SCALE 10-98 MODIFICATION 515	
63	GM HIS-9		CTRT CLR '9		E-03GN02	CBV	4	20LD-090454-009	
64	GM HIS-5		CTRT CLR 1A				1		
65	GM HIS-41		CROW FAN 1A & DMFR		E-03GN03		NV	20LD-010653-001	
66	GM HIS-42		CROW FAN 1B & DMFR				NV		
67	GM HIS-17		CTRT CLR 1D		E-03GN02		4	20LD-090454-009	



SNUPPS  
JOB NO. 10466  
REF. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL020  
SH. NO. 67

BECHTEL DWG. NO. 10466-J-24016

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
87B									○
87C									○
87D									
88	GK AI-3	2	CONTROL RM HVAC SUP CHLORINE	SIGMA 1151 VB	E03GK25	BECHTEL	1		
89	GK AI-2		↓	↓	↓	↓	4		
90A									
90B									
90C									
90D									
91A									
91B									
91C									
91D									
92	GN HIS-72		CRDM TO CTMT CLR IA	CUTLER-HAMMER E-30 JY9	E03GN08	CBV	NV		
93	GN HIS-73		↓ IC	↓	↓	↓	↓		
94	GN HIS-71		↓ IB	↓	↓	↓	↓		
95	GN HIS-74		↓ ID	↓	↓	↓	↓		
96	GN HIS-56		PZR ENCL COOLING FAN	ELECTROSWITCH 20L	E-03GN07			20LD-090453-003	
97	GG HIS-38		FUEL BLDG SUPPLY FAN 1A		E-03GG07			20LD-040453-003	
98	GG HIS-39		↓ IB	↓	↓	↓	↓	↓	
99									
100	GL HL-30X		AUX/FUEL BLDG NORM EM. FAN A RESET	GE ET-16	E03GL17/18	CBV	NV	01168670B65W	
101	GL HL-30Y		↓	↓	↓	↓	↓	↓	

SHUPPS  
JOB NO. 10466  
REF. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL 020  
DECHTEL DWG. NO. 10466-J-24016 SH. NO. 60

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV. NO.
102	GL HL-31X	2	AUX/FUEL BLDG NORM FAN B RESET	GE ET-16	E-03GL17/18	CBV	NV	0.16 B6708 G5W	0
103	GL HL-31Y								
104	G5-HIS-31		CTMT ATM MON SAMP SUPPLY ISO	CUTLER HAMMER E-30	E-03GS10		1		
105	G5-HIS-37				E-03GS11				
106	G5-HIS-34		CTMT ATM MON SAMP RETURN ISO		E-03GS10				
107	G5-HIS-38				E-03GS11				
108	EG-HIS-126A		CCW SUPPLY CTMT ISO VLV		E-03EG18				
109	EG-HIS-72.		CCW ISO TO POST ACCIDENT SAMP		E-03EG20		4		
110	EG-HIS-74								
111	EG-HIS-29		CCW HX BYPASS VALVE		E-03EG16		1		
112									
113									
114									
115									
116									
117									
118									
119									
120									
121									
122									
123									
124	G6 HIS-4H		AUX BLDG EMER EXH ISO DMPR	CUTLER HAMMER E-30 JY9	E-03GG10	CBV	1		

BILL OF MATERIAL  
 MAIN CONTROL PANEL

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	BEP GROUP	REMARKS	REV.
125	66 NIS-48	2	FUEL BLDG EBER EXH ISO DMPR	CUTLER HARBER E-30 J79	E-036G09	CBV			0
126	66 NIS-15A		EMERG EXH FAN 2A & DBPR	ELECTROSWITCH ZOLD	E-036G01			* ZOLD -090A53-003	0
127	66 NIS-42		FUEL POOL NORMA EXH ISO DMPR	CUTLER HARBER E-30 J79	E-036G11				
128	66 NIS-37A		FUEL BLDG SUP ISO DMPR		E-036G08				
129									
130A									
130B									
130C									
130D									
131A									
131B									
131C									
131D									
132	66 NIS-21A		EMERG EXH FAN 2B & DBPR	ELECTROSWITCH ZOLD	E-036G01	CBV	4	# ZOLD -090A53-003	
133	66 NIS-43		FUEL BLDG EBER EXH ISO DMPR	CUTLER HARBER E-30 J79	E-036G09		4		
134	66 NIS-44		AUX BLDG EBER EXH ISO DMPR		E-036G10		4		
135									
136	66 NIS-38A		FUEL BLDG SUP ISO DMPR	CUTLER HARBER E-30 J79	E-036G08	CBV	4		
137	66 NIS-71		HOT WASH & INST SHOP EXH ISO DMPR		E-036G14		1		
138	66 NIS-68		HOT MACH & INST SHOP FAN COIL ISO DMPR				1		
139	66 NIS-75		RAD TUNNEL RETURN ISO DMPR				1		
140	66 NIS-72		NON RAD TUNNEL SUP				1		
141	66 NIS-37		AUX FUEL BLDG NORMA EXH ISO DMPR				1		

SHIPPERS  
JOB NO. 10000  
REF. SPECIFICATION 100644-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. R1020  
QMS NO 1006310018 SH. NO. 70

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
142	6L HIS-12	2	AUX BLDG SUP AIR ISO DMPR	CUTLER HAMMER E-30 JY9	E-036L02	CBV	1		0
143	6L HIS-1		AUX BLDG SUP AIR UNIT FAN	ELECTROSWITCH 20LD	E-036L01		NV	4 20LD-090453-003	0
144	6L HIS-14		AUX BLDG SUP AIR ISO DMPR	CUTLER HAMMER E-30 JY9	E-036L02		4		
145	6L HIS-33		AUX FUEL BLDG NORM EXH ISO DMPR		E-036L14		4		
146	6L HIS-74		NOM RAD TUNNEL SUP ISO DMPR				4		
147	6L HIS-78		RAD TUNNEL RETURN ISO DMPR				4		
148	6L HIS-70		HOT MACH & INST SHOP EXH COIL SUPPLY ISO DMPR				4		
149	6L HIS-72		HOT MACH & INST SHOP EXH COIL EXH RETURN ISO DMPR				4		
150	GM TR-63		CRMT TEMPERATURE	FOXBORO 226 1 PEN	E-036N05	BECHTEL	4		
151	RR 929		ANNUNCIATOR UNIT	RILEY	E-036R09		NV	(CUTOUT ONLY) (SEE NOTE 5)	
152	6L HIS-38		AUX/FUEL BLDG NORMAL EXH FAN 3A	ELECTRO SWITCH 20L	E-036L17/18	CBV	NV	20LD-090652-001	
153	6L HIS-31						NV		
154	6L HIS-62		NORM EXH ISO DMPR	CUTLER HAMMER E-30 JY9	E-036L16		4		
155	6G HIS-56		NORMAL EXH XCONN DMPRS		E-036G15		1		
156	6G HIS-57						4		
157	GG HIS-27		SP FUEL POOL EXH SAMPLE VLV		E-036G17		1		
158	GG HIS-28						4		
159	GT RR-60		CRMT AREA RAD RECORDER	FOXBORO 226	E-036SH01	BECHTEL	4		
160	EJ LR-9		CRMT RECIRC SUMP LVL	FOXBORO 226 2 PEN	E-036EJ11		4		
161	GM HIS-9A		D.G. VENT EXH DMPR	CUTLER HAMMER E-30 JY9	E-036M04	CBV	1		
162	GM HIS-3A						4		
163	GT HIS-34		CRMT SHUTDOWN PURGE EXH.	ELECTROSWITCH 20P	E-036GT10		NV	20PHD-090853-004 (001)	B/C
164	RJ XY-2D		COMPUTER CRT	CONRAC 8100C85	E-23RJ01	BECHTEL	NV		







SMC/MS  
JAN NO. 10000  
REV. SPECIFICATION 1989-J-289

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL021  
DECAHEL DWG. NO 10466-J-24016 SH. NO. 73

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP GROUP	REMARKS	REV.
112C									0
112D									0
113									
114	SC TS-411E	2	OVERPR. OVER TEMP. Δ T REC SEL SW	ELECTRO SWITCH MODEL 20K	E-035C02,06 M-761-146 C-6	CBV	RF	20KD-0908AB-001	
115	BB N1S-37		RCP A CTRL SW	ELECTRO SWITCH 20P	E-035B01			20PHD-090854-010 (004)	B1C
116	BB N1S-38		RCP B CTRL SW						
117	BB N1S-39		RCP C CTRL SW						
118	BB N1S-40		RCP D CTRL SW						
119	BB N1S-41		RCP A BIL LIFT PRP	ELECTRO SWITCH MODEL 20LD	E-035B02	CBV		20LD-090454-010	
120	BB ZL8010A		PRESS SAFETY VALVE POS	GE ET-16	E-035B37		1	0116B6708 (G,A,R)	
121	BB N1S-42		RCP B BIL LIFT PRP	ELECTRO SWITCH MODEL 20LD	E-035B02		NV	20LD-090454-010	
122	BB ZL8010B		PRESS SAFETY VALVE POS	GE ET-16	E-035B37		1	0116B6708 (G,A,R)	547
123	BB N1S-43		RCP C BIL LIFT PRP	ELECTRO SWITCH MODEL 20LD	E-035B02		NV	20LD-090454-010	
124	BB ZL8010C		PRESS SAFETY VALVE POS	GE ET-16	E-035B37		4	0116B6708 (G,A,R)	547
125	BB N1S-44		RCP D BIL LIFT PRP	ELECTRO SWITCH MODEL 20LD	E-035B02		NV	20LD-090454-010	
126	BB-PS-55G		PZR PRESS REC SEL SW	ELECTRO SWITCH 20K	E-035C01,10 M-761142 C6		NV	20KD-0908AB-001	
127	BB T1-9		RCP COB OUTLET TEMP	SIGMA 1151 VB	E-035B26	BECHTEL	NV		
128									
129	BB N1S-8032		REAC VESSEL FLG LEAFOFF RELV	CUTLER NUMBER E-30 JY15	E-035B09	CBV	NV		
130	BB N1S-8045		REAC B/U MTR TO PNT						
131A	BB T1-468		PNT TEMP	RESTINGHOUSE MODEL 232	E-035C01 M-761-142 C6	RESTINGHOUSE	NV	DWG # R188-2	
131B	BB P1-489		PNT PRESS		E-035C01 M-761-140 C5				
131C	BB L1-478		PNT LEV						

SHAW-WALKER  
JOB NO. 10488  
REF. SPECIFICATION 10488-J-300

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. B1021  
BECHTEL DWG. NO. 10488-J-2018 SH NO. 74

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
1328									0
1329									0
133	BB-HIS-8001A	2	REACTOR HEAD VENT VLV	CUTLER MEMBER E-30	E-03BB30	CBV	1		
134	BB-HIS-8002A						1		
135	BB-HIS-8001B						4		
136	BB-HIS-8002B						4		
137	BB-HIS-8007A		PRT DRAIN TO CTMT NORM SUMP				1		
138	BB-HIS-8007B						4		
139	BB-MS-8000A		COLD O/P ARM SW		E-03BB39	BECHTEL	1	W/TWO KLA1 & TWO KLA2 CONT. BLOCKS	004
140	BB-MS-8000B						4	W/TWO KLA1 & TWO KLA2 CONT. BLOCKS	004
141									
142									
143	BB-HIS-13		CCW FROM RCP A	CUTLER MEMBER E-30 JY9	E-03BB05	CBV	1		
144	BB-HIS-14		CCW FROM RCP B				1		
145	BB-HIS-15		CCW FROM RCP C				1		
146	BB-HIS-16		CCW FROM RCP D				1		
147	BB-HIS-8		RCP COOLANT TEMP SEL SW	ELECTRIC SWITCH MODEL 70KD	E-03BB26		NY	20KD 0912D4-001	
148									
149	BB-HIS-455A		PZR PUR OP RELIEF VLV	CUTLER MEMBER E-30 JY16	E-03BB40	CBV	1		
150	BB-HIS-455B						4		
151	BB-HIS-8076		PRT N <sub>2</sub> ISO VLV	JY15	E-03BB13		1		
152	BB-HIS-8027				E-03BB11		4		
153	BB-HIS-181		RENC R/W NTR TO RCP A STANDPIPE	JY16	E-03BB14		NY		

SKUPPS  
JOB NO. 10466  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL021  
BECHTEL DWG. NO. 10466-J-24016 SH. NO. 75

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
154	BB HIS-8351A	2	SEAL NTR SUPPLY TO RCP A	CUTLER HAMMER E-30 JY9	E-038804	CBV	4		0
155	BB HIS-180		REAC W/O NTR TO RCP B STANDPIPE	JY6	E-038814		NY		
156	BB HIS-8351B		SEAL NTR SUPPLY TO RCP B	JY9	E-038804		4		
157	BB HIS-178		REAC W/O NTR TO RCP C STANDPIPE	JY6	E-038814		NY		
158	BB HIS-8351C		SEAL NTR SUPPLY TO RCP C	JY9	E-038804		4		
159	BB HIS-178		SEAL W/O NTR TO RCP B STANDPIPE	JY6	E-038814		NY		
160	BB HIS-8351D		SEAL NTR SUPPLY TO RCP D	JY9	E-038804		4		
161	BB HIS-8000A		RC SYS RELIEF VLV		E-038839		1		
162	BB HIS-8000B		RC SYS RELIEF VLV				4		
163									
164	BB HIS-8031		PRT TO RC DRW TM	CUTLER-HAMMER E-30 JY15	E-038807	CBV	NY		
165	RR HS-12		ANNUNCIATOR ACKNOWLEDGE (FIRST OUT)	GE CR 2940	E-03RKO6		NY	CR-2940UK 202B	MODIFIED 009
166	RR HS-13		ANNUNCIATOR "RESET" (FIRST OUT)				NY		MODIFIED 009
167	RR HS-14		ANNUNCIATOR "TEST" (FIRST OUT)				NY		MODIFIED 009
168	HB HIS-7176		RCDT WX DISCH 180	CUTLER-HAMMER E-30 JY18	E-03HB19		1		
169	HB HIS-7136		RCDT WX DISCH 180		E-03HB02		4		
170									
171	EC HIS-11		FUEL POOL WX COOL DISCH 180 A	CUTLER-HAMMER E-30 JY9	E-03ECO2	CBV	1		
172	EC HIS-12						4		
173	EC HIS-21		FUEL POOL COOL PMP A	ELECTRO-SWITCH 20P	E-03ECO1		1	20PHD-090853 004 (001) B+C	
174	EC HIS-28						4	(001) B+C	
175	EC LI-29A		FUEL POOL LVL	SIGMA HIS VB	E-03ECO6	BECHTEL	NY	LEGEND INCHES -80 TO +10 1151VB10DCV	501
178	FC TI-42		FUEL POOL TEMP				NY		

SHEETS		BILL OF MATERIAL		REVISIONS		PANEL NO. R-021	
JOB NO. 10000		MAIN CONTROL PANEL		REVISIONS		REV. 0	
REV. SPECIFICATION 10000-1-100		SERVICE		REVISIONS		REV. 0	
ITEM NO.	INSTRUMENT NO.	UNIT NO.	DESCRIPTION	ELEMENTARY DRG.	SUPPLIER	REP. GROUP	REMARKS
177	EC FI-43	2	CLEANUP PMP BISON FIBER	E-03 E-07	REDTEL	RY	
178	EC FI-178		FUEL POOL COOL PMP & BISON	E-03 E-05	REDTEL		
179	EC FI-188		B		REDTEL		
180	BB FI-417		RTD MANIFOLD FLOW LIGHT	E-03 B015	CBV		01168670663W
181	BB FI-427						
182	BB FI-437						
183	BB FI-447						
184							
185							
186							
187	118 MS-7126		RCDT CTMT 150 VLV	E-03 H003	CBV	1	
188	118 MS-7150			E-03 H002		4	
189	BB-LI-1311		REACTOR VESSEL WATER LEVEL	E-03 B034	WESTINGHOUSE		
190	BB-LI-1312					1	
191	BB-LI-1321					4	
192	BB-LI-1322					4	



SLIP NO. 10000  
 REC. NO. 10000  
 REC. NO. 10000

BILL OF MATERIAL  
 MAIN CONTROL PANEL

PANEL NO. 51322  
 REKITEL DNG. NO. 10666-J-24016 SH NO. 78

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DNG.	SUPPLIER	REP GROUP	REMARKS	REV.
1									0
2	RJ UT-1	2	COMPUTER DRIVEN DIGITAL READOUT		E.23R.J01	GEOMETEL	NV	J-106-0047 J106-0048	
3	RJ UT-2				M761-136 E-035F16,11	WESTINGHOUSE		DWG B-158-18	
4	5F-074		RFI DISPLAY UNIT		E-035C01 M-761-140 C5			DWG W58-17	
5	8C FR-137		RCF A SEAL LEAKOFF & INJ	3 PER M761-142 C6	E-035C01 M-761-142 C6				
6	8C FR-138		RCF B SEAL LEAKOFF & INJ	3 PER	E-035C01 M-761-142 C6				
7	8B TR-403		LOOP 1 HOT & COLD LEG TEMP	2 PER	E-035B08A M-761-134 C1			M761-132 C1	
8	8B TR-423		LOOP 2 HOT & COLD LEG TEMP	2 PER	E-035C02 M-761-146 C-B				
9	5F TR-412		REB INSERTION LIMIT REC	RESTRICTION LIMIT REC	E-035C02 M-761-146 C-B			DWG B-158-18	
10	5E WR-48		OVER POWER 1 & 2 AVG REC	RESTRICTION LIMIT REC	M761-018			DWG B-158-18	
11	5E WR-47		OVER POWER 3 & 4 AVG REC						
12	8C FR-135		RCF C SEAL LEAKOFF & INJ	3 PER M761-144 C7	E-035C02 M-761-144 C7			DWG B-158-12	
13	8C FR-134		RCF B SEAL LEAKOFF & INJ	3 PER	E-035C02 M-761-146 C-B				
14	8B TR-433		LOOP 3 HOT & COLD LEG TEMP	2 PER	E-035B08A M-761-134 C1				
15	8B TR-443		LOOP 4 HOT & COLD LEG TEMP	2 PER					
16	8B FR-403		REACTION COOLANT WIDE RING PRESS	2 PER	E-035B08A M-761-132 C1			M761-132 C1	
17	5E WR-41		NEUTRON FLUX 1&2 UPPER REC	2 PER	M761-018				
18	5E WR-42		NEUTRON FLUX 3 & 4 UPPER REC	2 PER					
19	8B FR-405		PER PRESS REC	1 PER	E-035C01 M-761-142 C6				
20	5E TR-411		OVER PWR. OVER TEMP AT REC	3 PER	E-035C02 M-761-146 C-B				
21A	8B FI-414		RC LOOP 1 FLOW	RESTRICTION LIMIT REC	E-035B08A M-761-132 C1			DWG B-158-2	
21B	8B FI-415				E-035B08A M-761-134 C2				
21C	8B FI-416				E-035B08B M-761-136 C3				



ITEM NO		REQUIREMENT NO	UNIT NO	SERVICE	DESCRIPTION	ELEMENTARY DMS	SUPPLIER	REP GROUP	REMARKS	REV
<p style="text-align: center;"><b>BILL OF MATERIAL MAIN CONTROL PANEL</b></p>										
228		BB F1-424	2	RC LOOP 2 FLOW	WESTINGHOUSE MODEL 252	E-035B08A M-76J-132 C1	WESTINGHOUSE	NY	DWG # R118-2	0
229		BB F1-425				E-035B08A M-76J-134 C2				
230		BB F1-426				E-035B08B M-76J-136 C8				
238		BB F1-424		RC LOOP 3 FLOW		E-035B08A M-76J-132 C1				
239		BB F1-425				E-035B08A M-76J-134 C2				
230		BB F1-426				E-035B08B M-76J-136 C8				
248		BB F1-448		RC LOOP 4 FLOW		E-035B08A M-76J-132 C1				
249		BB F1-449				E-035B08A M-76J-134 C2				
250		BB F1-448				E-035B08B M-76J-136 C3				
258		BB F1-425		RC LOOP 1 TO 2ND PMP SUCT		E-035B08C M-76J-133 C1		1	DWG # R118-12	
259		BB F1-420		RC LOOP 4 TO 2ND PMP SUCT		E-035B08D M-76J-139 C4		4		
26		DE 08-43		NEUTRON FLUID 1 & 2 LOWER REC	WESTINGHOUSE TYPE 2 PEN	M76B 08B		NY	DWG M 76B-3	
27		DE 08-44		NEUTRON FLUID 3 & 4 LOWER REC	2 PEN					
28		RC 08-102		B & STOP TR LFT REC	2 PEN	E-035C01 02 M-76J-146 C8	WESTINGHOUSE		M76J-140 C5	
29		08-322		ANNUNCIATOR UNIT	RILEY	E-035R03	BEI TEL	NY	(CUTOUT ONLY) (SEE NOTE 5)	
30										
31		SB 06-3		PERMISSIVE/BLOCKED & INITIAL TRIP STATUS	DETA 255W	E-035B07	BECHTEL	NY	E 034-0002 (SEE NOTE 5)	
32		08-T1-1390A		SUBCOOLING TEMP	WESTINGHOUSE MODEL 252	E-035B38	WESTINGHOUSE	1		
33		08-T1-1390B		SUBCOOLING TEMP				4		
34		REJD-329-000		FIRE DETECTOR	PYRA-LARM DL-205	E-C3MC17	BECHTEL	NY	LOCATE INTERNAL TO RLO21/22 061	





SHUPPS JOB NO. 10468 REF. SPECIFICATION 10468J 200		BILL OF MATERIAL MAIN CONTROL PANEL				DWC. NO 10468-J 24778		PANEL NO. RL 023	
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
123		2							0
124									
125									
126									
127									
128									
129	AF ZL 113A		FW HTR 4A STM LINE DRN	G.E. ET-18	E-03AF06	CBV	NV	0116B6708G 5R	5G
131	AF ZL 106A		FW HTR 3A STM LINE DRN						
132	AF ZL 144A		FW HTR 4B STM LINE DRN						
133	AF ZL 136A		FW HTR 3B STM LINE DRN						
134	AF ZL 173A		FW HTR 4C STM LINE DRN						
135	AF ZL 165A		FW HTR 3C STM LINE DRN	CUTLER HAMMER E-30 JY9					
136	AF HS 113		FW HTR 4A ISO VLV		E-03AF02A				
137	AF HS 106		FW HTR 3A DRAIN ISO VLV	AC	E-03AF02B				
138	AF HS 144		FW HTR 4B ISO VLV	JY9	E-03AF02A				
139	AF HS 136		FW HTR 3B DRAIN ISO VLV	AC	E-03AF02B				
140	AF HS 173		FW HTR 4C ISO VLV	JY9	E-03AF02A				
141	AF HS 165		FW HTR 3C DRAIN ISO VLV	AC	E-03AF02B				
142	AF ZL 7A		FW HTR 7A STM LINE DRAIN	G.E. ET-18	E-03AF05			0116B6708G 5R	5G
143	AF ZL 12A		FW HTR 6A STM LINE DRAIN						
144	AF ZL 24A		FW HTR 5A STM LINE DRAIN						
145	AF ZL 58A		FW HTR 7B STM LINE DRAIN						

ENRUPPS  
JOB NO. 10488  
BEP SPECIFICATION 10488-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

BECHTEL DWG. NO. 10488-J-24016 SH. NO. 83

PANEL NO. BLD73

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	BEP GROUP	REMARKS	REV.
146	AF ZL 44A	2	FB HTR 88 STR LINE DRAIN	S.E. ET-15	E-03AF05	CBV	NY	011686708G 5R	0
147	AF ZL 84A		FB HTR 58 STR LINE DRAIN	POWER METER E-30 AC	E-03AF01A				
148	AF HS 7		FB HTR 7A DRAIN 150 VLV'S						
149	AF HS 12		FB HTR 8A DRAIN 150 VLV'S						
150	AF HIS 24		FB HTR 5A 150 VLV	JY9	E-03AF01B				
151	AF HS 58		FB HTR 7B DRAIN 150 VLV'S	AC	E 3AF01A				
152	AF HS 44		FB HTR 8B DRAIN 150 VLV'S						
153	AF HIS 84		FB HTR 5B 150 VLV	JY9	E-03AF01B				
154	CG HIS 1		COND VACUUM PP A	ELECTRO SWITCH 20 PHD	E-03CG01			20PHD 090884-010 (004)	B1C
155	CG HIS 2		COND VACUUM PP B						
156	CG HIS 3		COND VACUUM PP C						
157									
158	AF HIS 218		HTR DRN TR START UP DRN TO COND	CUTLER HAMMER E 30 JY3	E-03AF22	CBV			
159	AF FI 89		HTR DRN PP DISCH FLOW	SIG:AA 1151VB	E-03AF18	BECHTEL			
160	AF ZL 72 B		HTR DRN PP A MIN FLOW VLV	GE ET 18	E-03AF20	CBV		011686708G 3R	
161	AF ZL 73 B		HTR DRN PP B MIN FLOW VLV	GE ET 18		CBV			
162	AF FIC 72 B		HTR DRN PP A MIN FLOW CTRL	FOXBORO Z50 HM+M2M		BECHTEL			
163	AF FIC 73 B		HTR DRN PP B MIN FLOW CTRL			BECHTEL			
164	AF HIS 69		HTR DRN PP A	ELECTRO SWITCH 30P	E-03AF10	CBV		#20 PHD-090883-004 (001)	B1C
165	AF HIS 68		HTR DRN PP B	ELECTRO SWITCH 30P		CBV			B1C
166									
167	AD FIK 78		COND PP A MIN FLOW	FOXBORO Z55PM+M2N	E-03AD06	BECHTEL			
168	AD FIK 158		COND PP B MIN FLOW	FOXBORO Z55PM+M2N					

SNUPPS  
JOB NO. 10A88  
REF SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL023  
BECHTEL DWG. NO. 10466-J-24016 SH. NO. 84

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
169	AD FIK 228	2	COND PP C MIN FLOW	FOXBORO 255HM-M2NH ELECTRO SWITCH ZOP	E-03AD06	BECHTEL	NV		O
170	AD HIS 1		COND PP A		E-03AD11	CBV		2091D-090853-004 (001)	B4C
171	AD HIS 2		COND PP B						
172	AD HIS 3		COND PP C						
173	AD HIS 4		COND PP A DISCH ISOL	PULLER HAMMER E-30 JY9	E-03AD02A				
174	AD HIS 17		COND PP B DISCH ISOL						
175	AD HIS 24		COND PP C DISCH ISOL						
176	AD HIS 26		COND. DEMIN BYPASS		E-03AD02C				
177									
178	AD ZL 78		COND PP A MIN FLOW VLV	G.E. ET-18	E-03AD07	CBV	NV	011686708G 3G SR	
179	AD ZL 158		COND PP B MIN FLOW VLV						
180	AD ZL 228		COND PP C MIN FLOW VLV						
181	RK HS-15		ANNUNCIATOR "ACK"	GE CR 2940	E-03RKO6			CR-2940UK202B	UNIFIED 009
182	RK HS-16		ANNUNCIATOR "TEST"						MODIFIED 009
183									
184									
185	LF-HIS-77		INST TUNNEL SUMP PMP A	ELECTROSWITCH 20LD	E-03LF15	CBV	NV	20LD-090483-003	
186	LF-HIS-78		B						
187	LF-LI-79		INST TUNNEL SUMP LVL	SIGMA HBI VB	E-03LF12	BECHTEL			
188	LF-LI-97		CONT CLR 1A DRN LVL		E-03LF11				
189	LF-LI-98		1B						
190	LF-LI-99		1C						
191	LF-LI-100		1D						

SNUPPS  
JOB NO. 10466  
REF. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL023  
BECHTEL DWG. NO. 10466-J-24016 SH. NO. 85

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP GROUP	REMARKS	REV.
192	LF LI 89	2	CTWT NORMAL SUMP LVL	SIGMA 1151 VB	E-03LF12	BECHTEL	NY		0
193	LF LI 94					BECHTEL			
194	LF HIS 97		CTWT CLR IA DRN VLV	CUTLER HAMMER E-30 JY9	E-03LF10	CBV			
195	LF HIS 98		1B						
196	LF HIS 99		1C						
197	LF HIS 100		1D						
198	LF HIS 88		CTWT NORMAL SUMP PMP A	ELECTRO SWITCH 20 LD	E-03LF06			20LD-090493-003	
199	LF HIS 88		B						
200	LF HIS 95		CTWT SUMP ISO VLV	CUTLER HAMMER E-30 JY9	E-03LF08		1		
201	LF HIS 98				E-03LF09A		4		
202	LF HIS 91		CTWT NORMAL SUMP PMP C	ELECTRO SWITCH 20 LD	E-03LF06		NY	20LD-090493-003	
203	LF HIS 92		D						
204									
205									
206	FC HIS -3		SGFP TURB A HP DRAIN	CUTLER-HAMMER E-30 JY9	E-23FC08A	CBV	NY		
207	FC HIS-103		B						
208	FC HIS-4		SGFP TURB A ABOVE SEAT DRN		E-23FC06				
209	FC HIS-104		B		E-23FC07				
210	FC HIS-7		SGFP TURB A BELOW SEAT DRN		E-23FC06				
211	FC HIS-107		B		E-23FC07				
212	FC HIS-12		SGFP TURB A ABOVE SEAT DRN		E-23FC06				
213	FC HIS-112		B		E-23FC07				
214	FC HIS-13		SGFP TURB A BELOW SEAT DRN		E-23FC06				

SNUPPS  
JOB NO. 10168  
REF: SPECIFICATION 10486-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL023  
BECHTEL DWG. NO. 10486-J-20018 SH. NO. 86

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
215	FC HIS-113	2	SGFP TURB B BELOW SEAT DRN	CUTLER HAMMER E-20 JY9	E-23FC07	CBV	NV		0
216	FC HIS-82		SGFP TURB A TURN GEAR	ELECTROSWITCH 20LD	E-23FC08			20LD-09045A-003	
217	FC HIS-182		B						
218	FC ZL-82A		SGFP TURB A TURN GEAR ENGAGED	GE-ET 16				0116B6708G 5R	
219	FC ZL-82B		LOCKED OUT					5A	
220	FC ZL-182A		SGFP TURB B TURN GEAR ENGAGED					5R	
221	FC ZL 182B		LOCKED OUT					5A	
222	FC HIS-77		SGFP TURB A VAC TRIP RESET	CUTLER HAMMER E-20 DY10	E-23FC09				
223	FC HIS-177		B	DY10					
224	FC HIS-71		SGFP TURB A ST UP DRN	JY9	E-23FC06				
225	FC HIS-171		B	JY9	E-23FC07				
226	FC HIS-14		SGFP TURB A LP STM DRAIN	JY9	E-23FC08 B				
227	FC HIS-114		B	JY9					
228	AD HIS-113		VACUUM BREAKER VLVS	JY9	E-03AD02B			W/2 - KLA4 MODIFIED 002	
229									
230									
231	AF ZL-7		HP HTR STM ISO VLVS 7A	GE ET-16	E-03AF25	CBV	NV	0116B6708G <sup>5R</sup> <sub>56</sub>	
232	AF ZL-5B		7B						
233	AF ZL-12		6A						
234	AF ZL-4A		6B						
235	AF ZL-106C		LP	3A	E-03AF08				
236	AF ZL-136C		3B						
237	AF ZL-165C		3C						





SHUPPS  
JOB NO 10488  
REF SPECIFICATION 10488-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL024

BECHTEL DWG. NO. 10488-J-20010

SH. NO. 88

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP. GROUP	REMARKS	REV.
1	—	2	24 HOUR CLOCK	ELECTRIC TIME CO.	—	CBV	NV	MODEL # FM5212 NLR	0
2	AC PI-505		HP TURB. 1ST STAGE PRESS	WESTINGHOUSE 252	E-035B08A M-761-133 C1	WESTINGHOUSE		DWG # M-768-2	
3	AC PI-506		HP TURB. 1ST STAGE PRESS		E-035B08A M-761-135 C2				
4									
5									
6	KA PI 10		COMPR AIR SUPPLY PRESS	SIGMA 1151 VB	E-03KA08	BECHTEL	NV		
7	AC FI-187		RHTR A FIRST STG. STR FLOW		E-03AC37				
8	AC FI-184		A 2ND						
9	AC FI-178		B FIRST						
10	AC FI-175		B 2ND						
11	AN LI-3		DEWH WTR STOR TANK LVL		E-03AN03				
12									
13	AE ZI-38		HP HTRS BYPASS VLV	SIGMA 1151 VB	E-03AE13	BECHTEL	NV		
14	AE TI-37		FEEDWATER TEMP	SIGMA 1151 VB	E-03AE08	BECHTEL	NV		
15	AC PI-204		LPTURB A EXH PRESS		E-03AC36				
16	AC PI-211		B						
17	AC PI-218		C						
18	AD TI-83		COND A HOTWELL TEMP		E-03AD05				
19	AD TI-84		B						
20	AD TI-87		C						
21	AC PS-505Z		HP TURB 1ST STAGE PRESS SEL	ELECTROSWITCH 20 K	E-03SC01,10 M-761-142 C6	CRV		20KD-0904D4-002	
22	JE HIS-1A		F.O. XFER PP "A"	ELECTROSWITCH 20LD	E-03JE01		1	20LD 0904S3-003	

SNLPPS  
JOB NO. 10088  
REF. SPECIFICATION 10088-J-30V

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL024  
BECHTEL DWG. NO. 10466-J-24016  
SH. NO. 89

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
23	JE HIS-21A	2	F.O. XFER PP 'B'	ELECTROSWITCH 20LD	E-03JE01	CBV	4	20LD-090453-003	0
24	EB HIS-1		TB CCW PUMP PEB01A	ELECTROSWITCH 20LD	E-03EB01		NV		
25	EB HIS-2		↓ PEB01B	↓	↓		NV		
26	EA-HIS-30		SW FROM TB CCW SYS	CUTLER HAMMER E-30 JY8	E-03EA01		NV		
27	KA QL-1		AIR COMPR CRADIC LOADING	GE ET-18	E-03KA01B		NV	0116B6708G 5R, 5W, 5G	
28	KA QL-2		↓ B	↓	E-03KA01B				
29	KA QL-3		↓ A	↓	↓				
30									
31									
32	KA HIS-29		IA SPLY TO CTWT ISO	CUTLER-HAMMER E-30 JY9	E-03KA02		1		
33	KA HIS-30		↓ SPLY TO H <sub>2</sub> CTRL SYS.	↓	E-03KA04		4		
34	KA ZL-11		SERVICE AIR SUPPLY VALVE	GE ET-16	E-03KA08		NV	0116B6708G 3G JR	
35	AC HIS-251		2 <sup>ND</sup> STAGE RHTR STM DRAINS	CUTLER-HAMMER E-30 JY9	E-03AC42A/B			W/2-KLA4	MODIFIED 002
36	AC HIS-189		1 <sup>ST</sup> STAGE RHTR STM SUPPLY	CUTLER HAMMER E-30 JY9	E-03AC25			W/2-KLA4	MODIFIED 002.
37	AB HIS-32		2 <sup>ND</sup> ↓	↓	E-03AB02B				
38	AC HIS-131		COLD REHEAT LINE DRAINS	↓	E-03AC32				
39	AC HIS-253		1 <sup>ST</sup> STAGE RHTR STM DRAINS	↓ ↓	E-03AC40			W/2-KLA4	MODIFIED 002
40	AC ZL-78		TURB STM LEAD NO. 3 DRAIN	GE ET-18	E-03AC30			0116B6708G 5G 5R	
41	AC ZL-79		↓ NO. 4. ↓	↓	↓				
42	AD ZL-55		LP HTR NO. 1A ISO VLVS	↓	E-03AD03				
43	AD ZL-43		↓ NO. 1B ↓	↓	↓				
44	AD ZL-30		↓ NO. 1C ↓	↓	↓				
45	AD HS-55		L.P. HTR 1A TO 4A ISO VLVS	CUTLER HAMMER E-30 AC	E-03AD03				

SKUPPS  
JOB NO. 10068  
REF. SPECIFICATION 10068J 300

BILL OF MATERIAL  
MAIN CONTROL PANEL

DECHTEL DWG. NO. 10466-J-2406  
PANEL NO. RL074  
SH. NO. 90

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
46	AD HIS-43	2	L.P. HTR 1B TO 4B ISOL VLV	CUTLER-HAMMER E-30 AC	E-03AD03	CBV	NV		0
47	AD HIS-38		L.P. HTR 1C TO 4C ISOL VLV						0
48	AD HIS-42		L.P. HTR BYPASS VLV.	JY9	E-03AD02A				
49	AE HIS-17		H.P. HTR 5B, 6B & 7B ISOL VLV		E-03AE02C				
50	AE HIS-18		H.P. HTR 5A, 6A & 7A ISOL VLV						
51	AE HIS-38		H.P. HTRS BYPASS VLV.		E-03AE02B				
52									
53									
54	AM HIS-1		DEMIN WTR XFER PP A	ELECTROSWITCH 20LD	E-03AM01	CBV	NV	# 20LD 090ASS-003	
55	AM HIS-2		B						
56	AD LIC-788		COND HOTRELL LEVEL CONTR.	FOXBORO 250HM + M2NH	E-03AD06	BECHTEL			
57									
58	AD PI-75		COND PMP DISCH PRESS	SIGMA HIS VB	E-03AD04	BECHTEL	NV		
59									
60	AE HK-36		FR RECIRC TO COND SYS.	FOXBORO 2AK + M2IH	E-03AE08	BECHTEL	NV		
61	KA HIS-3C		AIR COMPRESSED A SWITCH GEAR RESET	ELECTROSWITCH 20P	E-03KA01A	CBV	1	20PHD 09085A-011 (003)	B4C
62	KA HIS-2C		B				4		B1C
63									
64									
65									
66	EA HIS-1		SW FROM GEN STATION TO CLMS	CUTLER-HAMMER E-30 JY9	E-03EA01	CBV	NV		
67									
18	EA HIS-3		SW FROM 5TH FACK EXHAUSTER	CUTLER-HAMMER E-30 JY9	E-03EA01	CBV	NV		



EMGPPS JOB NO. 10488 REF. SPECIFICATION 10488J-200		BILL OF MATERIAL MAIN CONTROL PANEL				PANEL NO. <u>RL024</u> SHEET NO. <u>92</u>	
ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REV.
92							0
93							0
94							
95	EA HIS-7	2	SW FROM GEN H2 COOLER	CUTLER-HAMMER E-30 JY 15	E-03EA04	CBV	NV
96	EA HIS-8		SW FROM TURB GEN L.O. COOLER				
97	EA HIS-9						
98	AB HIS-23		5% STM LINE DRAIN TRAP BYPASS	JY9	E-03AB04		
99							
100							
101							
102	AB HIS-50		MIN STM LOW POINT DRAIN TRAP BYP	CUTLER-HAMMER E-30 JY9	E-03AB18	CBV	NV
103	AB HIS-51						
104	AB HIS-52						
105	AB HIS-53						
106							
107	AC ZL-186AA		RHTR A STM LOAD VLV POSITION	SEE ET-18	E-03AC30	CBV	NV
108	AC ZL-186BA		RHTR B				
109	FB-PIC-17						
110							
111	RK 024		ANNUNCIATOR UNIT	RILEY	E-03RK02	BECHTEL	
112	AC ZL-186CA		RHTR C STM LOAD VLV POSIT	SEE ET-16	E-03AC30	CBV	
113	AC ZL-186DA		RHTR D				
114							

0116B6708G 5G  
5R

RELOCATED TO RL027

(cutout only) (SEE NOTE 5)

0116B6708G 5G  
5R

SHUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10488-000

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL024  
BECHTEL DWG. NO. E-166-J-24016 SH. NO. 93

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY D.W.G.	SUPPLIER	SER. GROUP	REMARKS	REV.
115	ACFI-84	2	FIRST STAGE RHTR C STM FLOW	SIGMA 1151VB	E-03AC37	BECHTEL	NV		0
116	ACFI-82		SECOND	C					
117	ACFI-91		FIRST	D					
118	ACFI-87		SECOND	D					
119	BR-HIS-1A		SGA BLOWDOWN CTRY 150	CUTLER-HAMMER E-30 JY9	E-03BMO6A	CBV	4		
120	BR-HIS-2A		SGB						
121	BR-HIS-3A		SGC						
122	BR-HIS-4A		SGD						
123	AC HIS-119		MSR SHELL DRAIN JOG CTRL		E-03AC32		NV		
124	AC ZL-119A		MSR SHELL DRAIN 1/3 OPEN	GE ET-16	E-03AC33C			0116B670BG-5W	
125	AC ZL-119B		MSR SHELL DRAIN 2/3 OPEN						
126	AC ZL-120A		COLD REHEAT LINE DRN 1/3 OPEN		E-03AC33D				
127	AC ZL-120B		COLD REHEAT LINE DRN 2/3 OPEN						
128	AC ZL-72A,B		START-UP DRN VALVE POSIT		E-03AC39B				
129	AC HIS-7E		START-UP DRAIN VALVE	CUTLER-HAMMER E-30 JY9	E-03AC39A				
130									
131	AC HS 181A		RHTR STM HIGH LOAD VLVS	CUTLER-HAMMER E-30 AK	E-03AC24	CBV	NV		
132	AC HIS-134		MAIN TURB STOP & CTRL VLV STOP DRNG	JY9	E-03AC31				
133									
134	AB HIS-56		SECOND STAGE RHTR STM LINE WARMUP	CUTLER-HAMMER E-30 JY9	E-03AB24A	CBV	NV		
135	AD LIC-79A		COND REJECT TO STOR TK	FOXBORO 250HM+M2NH	E-03AD06	BECHTEL			
136	AD ZL 79BA		COND MAKE UP VLV	GE ET-16	E-03AD07	CBV		0116B670BG 3R 36	
137	AC HS-181B		MN STM SUPPLY TO 2ND STG RHTR	CUTLER-HAMMER E-30 AK	E-03AC24				

SHUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO24  
BECHTEL DWG. NO. 3466-1-74016  
SH. NO. 94

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SER. GROUP	REMARKS	REV.
138	RJUR-3	2	TREND RECORDER	VUTRONIK MODEL 37303	E-23RJ02	BECHTEL	NV		0
139	MAJR-1		MEGAWATT RECORDER	FOXBORO 226	E-03MA01				
140	SC066 W		PCS STATUS PANEL	BETA	E-03SC14				
141									
142									
143	BM HIS-19		STM GEN A SAMPLE SEL/ISO VLV	CUTLER HAMMER E-30 JY9	E03BM01	CBV	4		
144	BM HIS-20		B						
145	BM HIS-21		C						
146	BM HIS-22		D						
147	BM HIS-35		A		E03BM02				
148	BM HIS-36		B						
149	BM HIS-37		C						
150	BM HIS-38		D						
151	BM HIS-65		STM GEN A SAMPLE ISO VLV		E03BM03		1		
152	BM HIS-66		B						
153	BM HIS-67		C						
154	BM HIS-68		D						
155	AD ZL 79A		CONDENSATE REJECT VLV	GE ET-16	E-03AD07		NV	0116B6708G 3R 36	
156	JE LI-12A		FUEL OIL DAY TK A LVL	SIGMA 1151 VB	E-03JE02	BECHTEL	1		
157	JE LI-32A		B LVL				4		
158	KCID-329-009		FIRE DETECTOR	PYR-A-LARM DI-2DS	E-03KC17	BECHTEL	NV	LOCATE INTERNAL TO RLO23/24	001





SHAW-WALKER  
JOB NO. 10088  
SEE SPECIFICATION 10088-J-300

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. R1025  
BECHTEL DWG. NO. 10466-J-24016 SH. NO. 96

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
100	AE LI-501	2	SG A WIDE RING LEV	BESTINGHOUSE MODEL 252	E-035B08D M-761-153 C1	BESTINGHOUSE	1	DWG. # 8758-2	0
101	AE LI-519A		SG A PROG LEV SP		E-035C01 M-761-140 C5		NV		
102	AE LI-502		SG B WIDE RING LEV		E-035B08D M-761-135 C2		4		
103	AE LI-529A		SG B PROG LEV SP		E-035C01 M-761-142 C6		NV		
104	AE LI-503		SG C WIDE RING LEV		E-035B08D M-761-137 C3		1		
105	AE LI-539A		SG C PROG LEV SP		E-035C02 M-761-144 C7		NV		
106	AE LI-504		SG D WIDE RING LEV		E-035B08D M-761-139 C4		4		
107	AE LI-549A		SG D PROG LEV SP		E-035C02 M-761-146 C8		NV		
108	AB HIS-9		MIN STR LOOP 1 LOW POINT DRN	CUTLER HAMMER E-30 JY9	E-03AB03A	CBV	1		
109									
110	AB HIS-8		MIN STR LOOP 2 LOW POINT DRN	CUTLER HAMMER E-30 JY9	E-03AB03A	CBV	4		
111									
112	AB HIS-7		MIN STR LOOP 3 LOW POINT DRN	CUTLER HAMMER E-30 JY9	E-03AB03A	CBV	1		
113									
114	AB HIS-18		MIN STR LOOP 4 LOW POINT DRN	CUTLER HAMMER E-30 JY9	E-03AB03A	CBV	4		
115									
116	AB ZL-15A		MIN STR 150 BYP VLV AND LIGHTS	GE ET-16	E-03AB23A	CBV	1	011686708G 3R	36
117	AB ZL-18A						4		
118	AB ZL-21A						1		
119	AB ZL-12A						4		
120	AB HIS-15		MIN STR 150 BYP VLV	FOXBORO 255HJ+H2NH ELECTRO-SWITCH	E03AB21	BECHTEL	NV		
121	AB HS-77		MIN STR / FW 150 VLV ACCUM SEL	20KD	E-03AB30	CBV	5	# 20KD-1801C1-001	
122	AB HS-76				E-03AB30		6		

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
123	AB ZL-72	2	10% EXERCISE LIMIT	GE ET-16	E-03AB30	CBV	1	#01686708636	0
124	AB ZL-75			CUTLER-HAMMER E-3C AD	E-03AB30		4	W/IKLAA	543
125	AB HS-66		MIN SIM/FW 150 VLV ACCUM CHG TEST		E-03AB26		1		
126	AB HS-6B			AD	E-03AB27		4		543
127	AB HS-70		MIN SIM/FW 150 VLVS EXERCISE ACT	AA	E-03AB26		1		
128	AB HS-73			AA	E-03AB27		1		
129	AB HIS-14		SGA MIN SIM 150 VLV AB HV 14	JY9	E-03AB28		1		
130	AB HIS-17		SG B	JY9			4		
131	AB HIS-20		SG C	JY9			1		
132	AB HIS-11		SG D	JY9			4		
133	AB HS-67		ACCUMULATOR CHG TEST SELECT	ELECTROSWITCH 20 KD	E-03AB26		1	#20KD-1801C1-001	
134	AB HS-69				E-03AB27		1		
135									
136	AE HIS-43		SG A CHER INJ	CUTLER-HAMMER E-30 JY9	E-03AEO5	CBV	1		
137	AE HIS-44		SG B CHER INJ				1		
138	AE HIS-45		SG C CHER INJ				1		
139	AE HIS-46		SG D CHER INJ				4		
140	AB HS-71		EXERCISE SELECT	ELECTROSWITCH 20 KD	E-03AB26		1	#20KD-1801C1-001	
141	AB HS-74				E-03AB27		1		
142	AE HIS-39		SGA TR 150 VLV AE FV 39	CUTLER-HAMMER E-30 JY9	E-03AEO4,16		1		
143	AE HIS-40		SG B		E-03AEO3,16		1		
144	AE HIS-41		SG C		E-03AEO4,16		1		
145	AE HIS-42		SG D		E-03AEO3,16		4		

SHUPPS  
JOB NO. 10486  
REF. SPECIFICATION 10006J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL025  
DWG. NO. 10486-J-20916  
SH. NO. 98

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE.	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	REP. GROUP	REMARKS	REV.
146	<del>AB-PI-65</del>							SEE RL026 DWG	0
147	<del>AB-PI-76</del>								
148	AE LI-551	2	STM GEN. A LEVEL	WESTINGHOUSE 252	M-761-132 C1 E-035809A	WESTINGHOUSE	NV		
149	AE LI-552		B		M-761-134 C2 E-035809A				
150	AE LI-553		C		M-761-134 C2 E-035809A				
151	AE LI-554		D		M-761-132 C1 E-035809A				
152	RK HS-17		ANNUNCIATOR "ACKNOWLEDGE" (FIRST OUT)	GE CR2940	E-03RK06	CBV	NV	CR-2940 UK 202B MODIFIED	009
153	RK HS-19		ANNUNCIATOR "TEST" (FIRST OUT)					MODIFIED	009
154									
155									
156	CH HIS-1A		HYDRAULIC FLUID PMP "A"	ELECTROSWITCH MODEL 20P	E-03CH01	CBV	NV	20PHD-090094-010 (004)	B4C
157	CH HIS-1B		HYDRAULIC FLUID PMP "B"						B4C
158									
159	CB HIS-4		TURB LIFT PMP BRG 3	ELECTROSWITCH MODEL 20L	E-03CB05	CBV	NV	20LD-0904CB-002	
160	CB HIS-5		4						
161	CB HIS-6		5						
162	AC HIS-30C		TURB TURNING GEAR MOTOR		E-03AC20			20LD-090494-002	
163	CB-PL-9		TURNING GEAR PERMISSIVE	GE ET-16	E-03CB09	CBV		0116B67086 5R	
164	CB HIS-1		TURB LUBE OIL TR MTR PMP SUCT	ELECTROSWITCH 20LD	E-03CB01			20LD-090454-004	
165	CB HIS-3		TURBINE DC ERER BRG OIL PMP	GE SBM	E-03CB03				
166	CB HIS-2		TURBINE AC TURNING GEAR OIL PMP	ELECTROSWITCH 20LD	E-03CB02			*20LD-090454-010	
167									
168	CB HIS-7		TURBINE LIFT PMP BRG 6	ELECTROSWITCH 20LD	E-03CB05	CBV	NV	20LD-0904CB-002	

SNLPPS  
JOB NO. 10466  
R&F SPECIFICATION 10466-J-24016

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RLO25

BECHTEL DWG. NO. 10466-J-24016 SH. NO. 99

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SER. GROUP	REMARKS	REV.
169	CB HIS 8	2	TURBINE LIFT PMP BRG	7 ELECTROSWITCH 20L	E-03CB05	CBV	NV	20LD-0904CB-002	0
170	CB HIS 9			8	E-03CB11			20LD-0904CB-003	
171	CB HIS 10			9	E-03CB05			20LD-0904CB-002	
172	RK HS 18		ANNUNCIATOR "FIRST OUT" (RESET)	GE CR-2940	E-03RK06			CR-2940 UK 202B MODIFIED 009	
173									
174	CB PI-21		BEARING OIL HEADER PRESS	SIGMA 1151 VB	E-03CB06	BECHTEL	NV		
175									
176	CB PL-1		TURB BRG OIL LIFT PMP 1 PRESS	GE ET 16	E-03CB06	CBV	NV	0116B6708G <sup>5A</sup> <sub>5G</sub>	
177	CB PL-2			2					
178	CB PL-3			3					
179	CB PL-4			4					
180	CB PL-5			5					
181	CB PL-6			6					
182	CB PL-7			7					
183	CB PL-8			8					
184	AC ZL-30B		TURN GEAR ENGAGE	GE ET-18	E-03AC20	CBV		0116B6708G-5R	
185	CB ZL-13		EMERG BRG OIL PMP		E-03CB03			0116B6708G- <sup>3R</sup> <sub>3G</sub>	
186	AC 11-30B		TURN GEAR ANMETER	SIGMA 1151 VB	E-03AC20	BECHTEL		AC AMPS 0-150A 1" VB4-10 VDC	
187	CB TI-14		L.O. CLR DISCH TEMP	SIGMA 1151 VB	E03EA03	BECHTEL			
188	AC ZL-30K		TURN GEAR LOCKOUT	GE ET-16	E-03AC20	CBV		0116B6708G-5A	
189	AB HS-9		SG A MN STM LOOP 1 DRAIN	CUTLER HAMMER E-30 AA	E-03AB03B		4		
190	AB HS-8		SG B MN STM LOOP 2 DRAIN				1		
191	AB HS-7		SG C MN STM LOOP 3 DRAIN				4		



SKUPPE  
JOB NO. 10466  
REF. SPECIFICATION 10466-J-24016

BILL OF MATERIAL  
MAIN CONTROL PANEL

BECHTEL DWG. NO. 10466-J-24016

PANEL NO. KLO26  
SH. NO. 101

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG	SUPPLIER	SEP. GROUP	REMARKS	REV.
1	AE LR-501	2	SG A & B LEV	2 PEN HAGAN OPTIMAC	E-035B08A M-761-134 C2	WESTINGHOUSE	NV	DWG. # N768-12 M-761-132 C1 E-03RC01	0
2	AE LR-503		SG C & D LEV	2 PEN	E-035B08B M-761-139 C4			M-761-137 C3	
3	AB PR-514		SG A & B PRESS	2 PEN	E-035B08A M-761-132 C1				
4	AB PR-535		SG C & D PRESS	2 PEN	E-035B08A M-761-135 C2				
5A	AE FI-510A		SG A FW FLOW	WESTINGHOUSE MODEL 252	E-035C01 M-761-140 C5			DWG. # N768-2	
5B	AE FI-511A				E-035C01 M-761-140 C5				
5C	AB FI-512A		SG A STM FLOW		E-035C01 M-761-140 C5				
5D	AB FI-513A				E-035C01 M-761-140 C5				
6A	AE FI-520A		SG B FW FLOW		E-035C01 M-761-142 C6				
6B	AE FI-521A				E-035C01 M-761-142 C6				
6C	AB FI-522A		SG B STM FLOW		E-035C01 M-761-142 C6				
6D	AB FI-523A				E-035C01 M-761-142 C6				
7A	AE FI-530A		SG C FW FLOW		E-035C02 M-761-149 C7				
7B	AE FI-531A				E-035C02 M-761-149 C7				
7C	AB FI-532A		SG C STM FLOW		E-035C02 M-761-149 C7				
7D	AB FI-533A				E-035C02 M-761-149 C7				
8A	AE FI-540A		SG D FW FLOW		E-035C02 M-761-146 C8				
8B	AE FI-541A				E-035C02 M-761-146 C8				
8C	AB FI-542A		SG D STM FLOW		E-035C02 M-761-146 C8				
8D	AB FI-543A				E-035C02 M-761-146 C8				
9A	AB PI-514A		SG A PRESS		E-035B08D M-761-133 C1		1		
9B	AB PI-515A				E-035B08D M-761-135 C2		4		
9C	AB PI-516A				E-035B08D M-761-139 C4		4		

SHUPPS  
JOB NO. 10488  
REF. SPECIFICATION 10488J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

BECHTEL DWG. NO. 10488-J-20010

PANEL NO. RL026  
SH. NO. 102

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
10A	AB PI-524A	2	SG B PRESS	WESTINGHOUSE MODEL 252	E-035B08D M-761133 C1	WESTINGHOUSE	1	DWG. # W768-2	0
10B	AB PI-525A				E-035B08D M-761135 C2		4		
10C	AB PI-526A				E-035B08D M-761137 C3		1		
11A	AB PI-534A		SG C PRESS		E-035B08D M-761133 C1		1		
11B	AB PI-535A				E-035B08D M-761135 C2		4		
11C	AB PI-536A				E-035B08D M-761137 C3		1		
12A	AB PI-544A		SG D PRESS		E-035B08D M-761133 C1		1		
12B	AB PI-545A				E-035B08D M-761135 C2		4		
12C	AB PI-546A				E-035B08D M-761139 C4		4		
13A	AE LI-517		SG A LEV		E-035B08D M-761139 C4		4		
13B	AE LI-518				E-035B08D M-761137 C3		1		
13C	AE LI-519				E-035B08D M-761135 C2		4		
14A	AE LI-527		SG B LEV		E-035B08D M-761139 C4		4		
14B	AE LI-528				E-035B08D M-761137 C3		1		
14C	AE LI-529				E-035B08D M-761135 C1		1		
15A	AE LI-537		SG C LEV		E-035B08D M-761139 C4		4		
15B	AE LI-538				E-035B08D M-761137 C3		1		
15C	AE LI-539				E-035B08D M-761133 C1		1		
16A	AE LI-547		SG D LEV		E-035B08D M-761139 C4		4		
16B	AE LI-548				E-035B08D M-761137 C3		1		
16C	AE LI-549				E-035B08D M-761135 C2		4		
17A	CA PI-10		STM SEAL SYS INLET PRESS	SIGMA 1151VB	E-03CA03	BECHTEL	NV		
17B	CA PI-8A		STM SEAL SYS ETH VACUUM						



SHOPS  
JOB NO. 10000  
REF. SPECIFICATION 10000-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL075  
SH. NO. 103

BECHTEL DRWG. NO. 10464-J-2A01G

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DRG.	SUPPLIER	SEP GROUP	REMARKS	REV.
18	CC PI-8	2	MACHINE GAS PRESS	SIGMA 1151 VB	E-03CC01	BECHTEL	NV		0
19	CC AI-17		HYDROGEN PURITY						0
20	CC TI-28		GEN COLD GAS TEMP		E03EA03				
21									
22	CA HIS-1		WH STM SEAL FEED VLV	CUTLER HAMMER E-30 JY9	E-03CA01AB	CBV	NV		
23	CA HIS-2								
24	CA HIS-4		AUX STM SEAL FEED VLV						
25	CA HIS-3		STM SEAL WH UNLOADING VLV						
26	CE TI-38A		STATOR COOL WTR FROM WINDINGS TEMP	SIGMA 1151 VB	E-03CE06	BECHTEL			
27	CE TI-39		.. .. TO .. ..		E-03CE06				
28	CE PI-28		.. .. INLET PRESS ..		E-03CC01				
29	CD ZL-9		ESOP RUNNING IND LIGHTS	GE ET-16	E-03CD02	CBV	NV	0116B67086 4R 3G	
30	AL PI-37		AUX FW PMP SUCT HDR PRESS	SIGMA 1151 VB	E-03AL06	BECHTEL	I		
31									
32									
33	CE HIS 1		WH STATOR COOLANT PMP ..A..	ELECTROSWITCH 20 PHD	E-03CE01	CBV	NV	20PHD-090854-005 (002)	B4C
34	CE HIS 2		.. .. ..B..	ELECTROSWITCH 20LD	E-03CA02			20LD-090453-003	B4C
35	CA HIS-11A		STM PACK EXH ..A..						
36	CA HIS-12A		STM PACK EXH ..B..						
37	CD HIS-8		SEAL OIL VACUUM PMP		E-03CD03			20LD 2252 DA-001	
38	CD HS-13		EMER SEAL OIL PMP	GE SBM	E-03CD02				
39	CD HIS-10		WH SEAL OIL PMP	ELECTROSWITCH MODEL 30LD	E-03CD01			20LD 2252 DA-001	
40	CD HIS-11		RECIRC SEAL OIL PMP						

SHUPPE  
JOB NO. 10466  
REF. SPECIFICATION 10466-J-200

BILL OF MATERIAL  
MAIN CONTROL PANEL

PANEL NO. RL026  
BECHTEL DNG. NO. 10466-J-24016 SH. NO. 104

ITEM NO.	INSTRUMENT NO.	UNIT NO.	SERVICE	DESCRIPTION	ELEMENTARY DWG.	SUPPLIER	SEP GROUP	REMARKS	REV.
41	AB HIS-48	2	MN STM HDR TO STM SEAL SYS.	CUTLER HANSEN E-30 Jyq	E-03AB22	CBV	NV		0
42									
43	AL PI-38		AUX PW PMP SUCT HDR PRESS	SIGMA 1151 VB	E 03AL08	BECHTEL	2		
44	AL PI-39						4		
45									
46									
47									
48									
49									
50	RR-828		ANNUNCIATOR UNIT	RILEY	E-03AR02	BECHTEL	NV	(CUTOUT ONLY) (SEE NOTE 5)	
51	FC PI-64A		SGFP TURB A BRQ OIL PRESS	SIGMA 1151 VB	E-23FC17				
52	FC PI-164A		B						
53	FC PI-68A		A						
54	FC PI-168A		B						
55	FC HIS-45		SGFP TURB A LUBE OIL PMP 1A	ELECTROSWITCH 20LD	E-23FC01	CBV		20LD-010454-008	
56	FC HIS-145		B	1B					
57	FC HIS-47		A	2A					
58	FC HIS-147		B	2B					
59	FC HS-49		SGFP TURB A EMER LUBE OIL PMP CONT	GE 30M	E-23FC02			# 16 8PM10AA105	
60	FC HS-149		SGFP TURB B EMER LUBE OIL PMP CONT						
61	FC PL-44A		SGFP TURB A MN LUBE OIL PMP 1A PRESS	GE-ET-16	E-23FC04			0116867086 5W	
62	FC PL-144A		SGFP TURB B MN LUBE OIL PMP 1B PRESS						
63	FC PL-54A		SGFP TURB A MN LUBE OIL PMP 2A PRESS						







