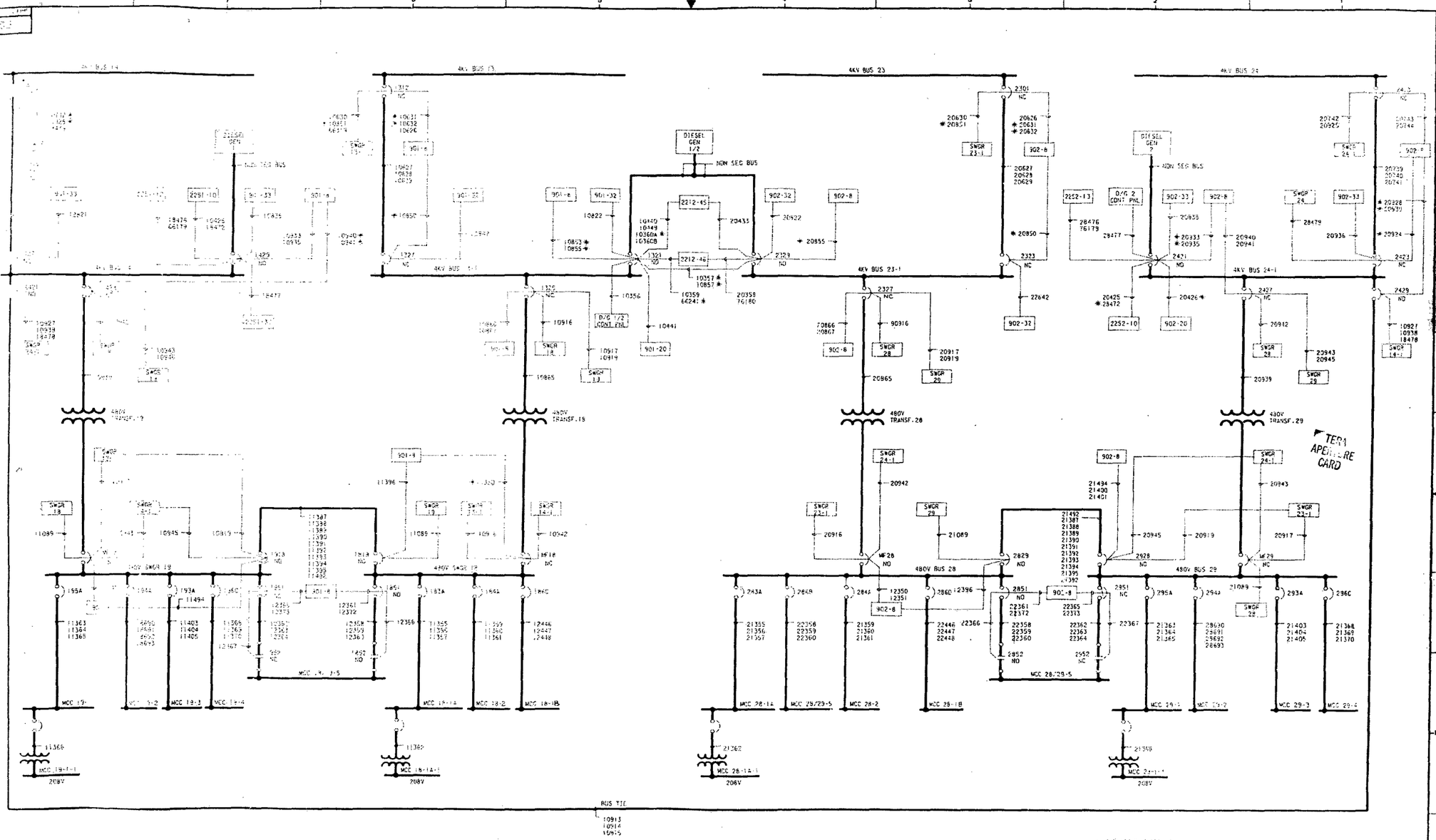
ES-148

TABLE 1.1-1
QUAD CITIES 1 ALTERNATE SAFE HOT SHUTDOWN EQUIPMENT LIST

LOCATION	RCIC (NOTE 2)	RHR SYSTEM (SEE NOTE 3) LPCI MODE	TORUS COOLING MODE	DIESEL GENERATORS (SEE NOTE 4) 1-DG01	2-DG01	INSTRUMENT RACKS	ELECTROMATIC RELIEF VALVES 1-0203-3A THRU 1-0203-3K	MECHANICAL SAFETY VALVES AND TARGET ROCK 1-0203-4A THRU LH 1-0203-3A
REACTOR BUILDING - BASEMENT FLOOR EL 547'-0"		X(DIV.III)	X	X OR	X	X OR X	X	X
REACTOR BUILDING - GROUND FLOOR EL 595'-0", 623'-8"			X	X OR	X	X OR X	X	X
REACTOR BUILDING - MEZZANINE FLOOR EL 623'-8"		X(DIV.III)	X	X OR	X	LOC INSTRUMENT RACKS 2202-7,2202-8 & 2792-58 (1 OF 3)	X	X
REACTOR BUILDING - MAIN FLOOR EL 595'-0"	X		X	X OR	X	X OR X	X	X
REACTOR BUILDING - REACTOR FLOOR EL 623'-8"	X		X	X OR	X	CONTROL ROOM	X	X
REACTOR BUILDING EL 649'-6"	X		X	X OR	X	X OR X	X	X
CONTROL ROOM FLOOR PLAN EL 623'-8"	X		X	X OR	X	X OR X	X	X
RCIC PUMP ROOM FLOOR PLAN EL 519'-0"	X		X	X OR	X	X OR X	X	X
REACTOR SAFETY PANELS ROOM EL 623'-8"	X		X	X OR	X	X OR X	X	X
MECHANICAL EQUIPMENT AND PIPING ROOM EL 595'-0"	X		X	X OR	X	X OR X	X	X
TURBINE BUILDING - BASEMENT FLOOR EL 547'-0"	X		X	X OR	X	X OR X	X	X
TURBINE BUILDING - GROUND FLOOR EL 595'-0"	X		X(SEE UNIT 2 RHR SERV.WTR.PUMPS.)	X OR	X	CONTROL ROOM	X	X
TURBINE BUILDING - MEZZANINE FLOOR EL 623'-8"	X		X(DIV.II) (RHR SERV.WTR.PUMPS.)	X OR	X	X OR X	X	X
TURBINE BUILDING - MAIN FLOOR EL 595'-0"	X	X(DIV.I)	X(DIV.I) (SEE U1 RHR SERV.WTR.PUMPS.)	X OR	X	X OR X	X	X
TURBINE BUILDING - MAIN FLOOR EL 595'-0"	X		X(SEE UNIT 2 RHR SERV.WTR.PUMPS.)	X OR	X	CONTROL ROOM	X	X
TURBINE BUILDING - MAIN FLOOR EL 595'-0"	X		X

ES-148



NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING

DRAWING RELEASE RECORD

REV.	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	8-15-81	[illegible]			FOR CECO USE	

SCALE: NONE
PROJECT NUMBER: 448-8[illegible]

SINGLE LINE DIAGRAM
EMERGENCY POWER SYSTEM 4KV & 480V
DRESDEN NUCLEAR POWER STATION
UNITS 1 & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

SARGENT & LUNDY ENGINEERS CHICAGO

DRAWING NO. ES-148 REV. 0

SHEET 1 OF 1

ES-149

SHEET 2 OF

SAL ROAD FILE: DIAM5-5

SERVICE	LINE NUMBER / ZONE	UNIT 1																						UNIT 2																						UNIT 1 & 2				REMARKS
		1.1.1.1	1.1.2	1.1.2.2	1.1.2.3	1.1.2.4	1.1.1.2	1.1.1.3	1.1.1.4	1.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	11.1.4	11.3.1	11.3.2	11.3.3	11.3.4	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5	1.2.2	6.2	7.0	8.2.1	11.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	
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TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING

DRAWING RELEASE RECORD

REV	DATE RELD	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM

DRAWING RELEASE RECORD

REV	DATE RELD	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	10-15-81	[illegible]			FOR CONSTRUCTION	

SCALE: NONE
PROJECT NUMBER: 6401

HEATING OF ASSOCIATED CUBICLES BY FIRE PUMP
BRAIDWOOD NUCLEAR POWER STATION
UNIT 1 & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

SARGENT & LUNDY ENGINEERS
CHICAGO, ILLINOIS

DRAWING NO: ES-149
REV: 0
SHEET 2 OF

ES-149

SAIL ROAD FIRE CHANNELS

| SERVICE | FIRE ZONE / EQUIP. NUMBER | UNIT 1 | | |

ES-149

SAIL BOARD SHEET NUMBER 5

SERVICE	FIRE ZONE / EQUIP. NUMBER	1.1.1.1	1.1.1.2	1.1.1.2.1	1.1.1.2.2	1.1.1.2.3	1.1.1.4	1.1.1.1.2	1.1.1.1.3	1.1.1.1.4	1.1.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	11.1.4	11.3.1	11.3.2	11.3.3	11.3.4	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5	1.2.2	6.2	7.0	8.2.1	11.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	REMARKS
ELECTROMATIC RELIEF VALVES 2-203-3A THRU 2-203-3E	POWER CABLES																													20264	20264				20264						20264	20264								20222				
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	CONTROL CABLES																											20790	20790												20790	20790									20790			
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	2-203-3A																													23654																										
																														23668	23668																										
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	2-203-3B																													23657																										
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	2-203-3C																													23661																										
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	2-203-3D																													23662																										
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	2-203-3E																																				22845																				
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UNIT 1 | UNIT 2 | UNIT 1 & 2

TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING

DRAWING RELEASE RECORD

REV.	DATE RELD	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM

DRAWING RELEASE RECORD

REV.	DATE RELD	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	5-10-81	[illegible]			CONSTRUCTION USE	

SCALE: NONE
PROJECT NUMBER: 4401

PROTECTION ASSOCIATED CIRCUITS BY FIRE ZONE
QUAD CITIES NUCLEAR POWER STATION
UNIT 1 & 2
COMMONWEALTH EDISON CO.
OFFICIAL ELECTRICAL DRAWING

SARGENT & LUNDY ENGINEERS
CHICAGO, ILLINOIS

DRAWING NO. ES-149 REV. 0
SHEET 1 OF 1

BUS TIE

4KV BUS 14 (ESS DIV.II)

1409 NC — RES.HT.REMOVAL SYS. SERVICE WATER PUMP 1C

DIESEL GEN 1/2 (ESS.DIV.II)

1427 NC — 4KV BUS 14-1 (ESS DIV.II) — 1429 NO

1423 NC — 480V TRANSF.19

1424 — RHRS PUMP 1D

1428 — RHRS PUMP 1C

4KV BUS 13 (ESS DIV.I)

1312 NC — 1308 — 1311

RES.HT.REMOVAL SYS. SERVICE WATER PUMP 1B

RES.HT.REMOVAL SYS. SERVICE WATER PUMP 1A

DIESEL GEN 1/2 (ESS.DIV.I)

1327 NC — 4KV BUS 13-1 (ESS DIV.I) — 1321 NO — 2329 NO

1325 NC — 480V TRANSF.18

1324 — RHRS PUMP 1B

1328 — RHRS PUMP 1A

(SEE SHEET 4) 250V D.C.R.B.MCC 1B

1-1301-17
1-1301-22
1-1301-25
1-1301-26
1-1301-48
1-1301-49
1-1301-53
1-1301-60
1-1301-61
1-1301-62

(SEE SHEET 4) 250V D.C.R.B.MCC 2B

2-1301-17
2-1301-22
2-1301-25
2-1301-26
2-1301-48
2-1301-49
2-1301-53
2-1301-60
2-1301-61
2-1301-62

4KV BUS 23 (ESS DIV.I)

2305 — RES.HT.REMOVAL SYS. SERVICE WATER PUMP 2A

2309 — RES.HT.REMOVAL SYS. SERVICE WATER PUMP 2B

2301 NC — 2323 NC — 4KV BUS 23-1 (ESS DIV.I)

2324 — RHRS PUMP 2A

2326 — RHRS PUMP 2B

2327 NC — 480V TRANSF.28

4KV BUS 24 (ESS DIV.II)

2402 — RES.HT.REMOVAL SYS. SERVICE WATER PUMP 2C

2406 — RES.HT.REMOVAL SYS. SERVICE WATER PUMP 2D

2413 NC — 2429 NC

DIESEL GEN 2 (ESS.DIV.II)

2421 NO — 4KV BUS 24-1 (ESS DIV.II) — 2423 NC

2424 — RHRS PUMP 2C

2426 — RHRS PUMP 2D

2427 NC — 480V TRANSF.29

MF19 NC — 480V BUS 19 (ESS.DIV.II)

MCC 19-1 — 480V-120/208V TRANSF.

MCC 19-2 — HEATER CHGR.1 — BATTERY CHGR.1 — AIR COMP.1A — AIR COMP.1B — A.P.U.COOL.FAN A,B — D/G 1/2 COOL.FAN A,B,C,D

MCC 19-4 — 1-1001-5B — 1-1001-7C — 1-1001-16A — 1-1001-19A — 1-1001-23A — 1-1001-26A — 1-1001-34A — 1-1001-36A — 1-1001-37A

1918 NO — 1951 NC — 1952 NC — MCC 18/19-5 — 1-1001-28A — 1-1001-28B — 1-1001-29A — 1-1001-29B

1819 NO — 1851 NO — 1852 NO

MF18 NC — 480V BUS 18 (ESS.DIV.I)

MCC 18-1A — 480V-120/208V TRANSF.

MCC 18-1A-1(208V) — 1-1001-18A — 1-1301-16

1-1001-4A — 1-1001-185A — 1-1001-186A — 1-1001-187A — D.D.TRANS.PU.1/2 — D/G AIR COMP.1/2B — RHR EMERG.AIR HLDG.UNIT 1A

1-1001-5A — 1-1001-7A — 1-1001-7B — 1-1001-16A — 1-1001-19A — 1-1001-23A — 1-1001-26A — 1-1001-34A — 1-1001-36A — 1-1001-37A

MCC 18-1B — 125V BATTERY CHGR.1A — 250V BATTERY CHGR.1/2 — D/G 1/2 C.W.PU.COOL.FAN A,B — RHR S.W.PU.1A COOL.FAN A,B,C,D — RHR S.W.PU.1B COOL.FAN A,B,C,D

MCC 18-2 — 125V BATTERY CHGR.1A — 250V BATTERY CHGR.1/2 — D/G 1/2 C.W.PU.COOL.FAN A,B — RHR S.W.PU.1A COOL.FAN A,B,C,D — RHR S.W.PU.1B COOL.FAN A,B,C,D

MF28 NC — 480V BUS 28 (ESS.DIV.I)

MCC 28-1A — 480V-120/208V TRANSF.

MCC 28-1A-1(208V) — 2-1001-18A — 2-1301-16

2-1001-4A — 2-1001-185A — 2-1001-186A — D/G AIR COMP.1/2A — D.D.TRANS.PG.1/2 — D/G RM.FAN 1/2 — RHR EMERG.AIR HLDG.UNIT 2A — HPCI EMERG.AIR HLDG.UNIT 2A

MCC 28-2 — 125V BATTERY CHGR.2A — 250V BATTERY CHGR.1/2 — RHR S.W.PU.2A FAN A,B,C,D — RHR S.W.PU.2B FAN A,B,C,D

MCC 28-1B — 2-1001-5A — 2-1001-7A — 2-1001-7B — 2-1001-16A — 2-1001-19A — 2-1001-26A — 2-1001-34A — 2-1001-36A — 2-1001-37A — 2-1001-187A

2829 NO — 2851 NO — 2852 NO — MCC 28/29-5 (ESS.DIV.I) — 2-1001-28A — 2-1001-28B — 2-1001-29A — 2-1001-29B

2928 NO — 2951 NC — 2952 NC — MCC 28/29-5 (ESS.DIV.II)

MF29 NC — 480V BUS 29 (ESS.DIV.II)

MCC 29-1 — 480V-120/208V TRANSF.

MCC 29-1-1(208V) — 2-1001-188

2-1001-4B — 2-1001-185B — 2-1001-186B — 2-1001-187B — D.D.TRANS.PU.2 — D/G RM.FAN 2 — RHR EMERG.AIR HLDG.UNIT 2B

MCC 29-2 — 125V BATTERY CHGR.2 — 250V BATTERY CHGR.2 — D/G AIR COMP.2A-2B — D/G C.W.PU.COOL.FAN A,B — RHR S.W.PU.2C FAN A,B,C,D — RHR S.W.PU.2D FAN A,B,C,D

MCC 29-4 — 2-1001-5B — 2-1001-7C — 2-1001-16B — 2-1001-19B — 2-1001-23B — 2-1001-26B — 2-1001-34B — 2-1001-36B — 2-1001-37B

TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING.

DRAWING RELEASE RECORD

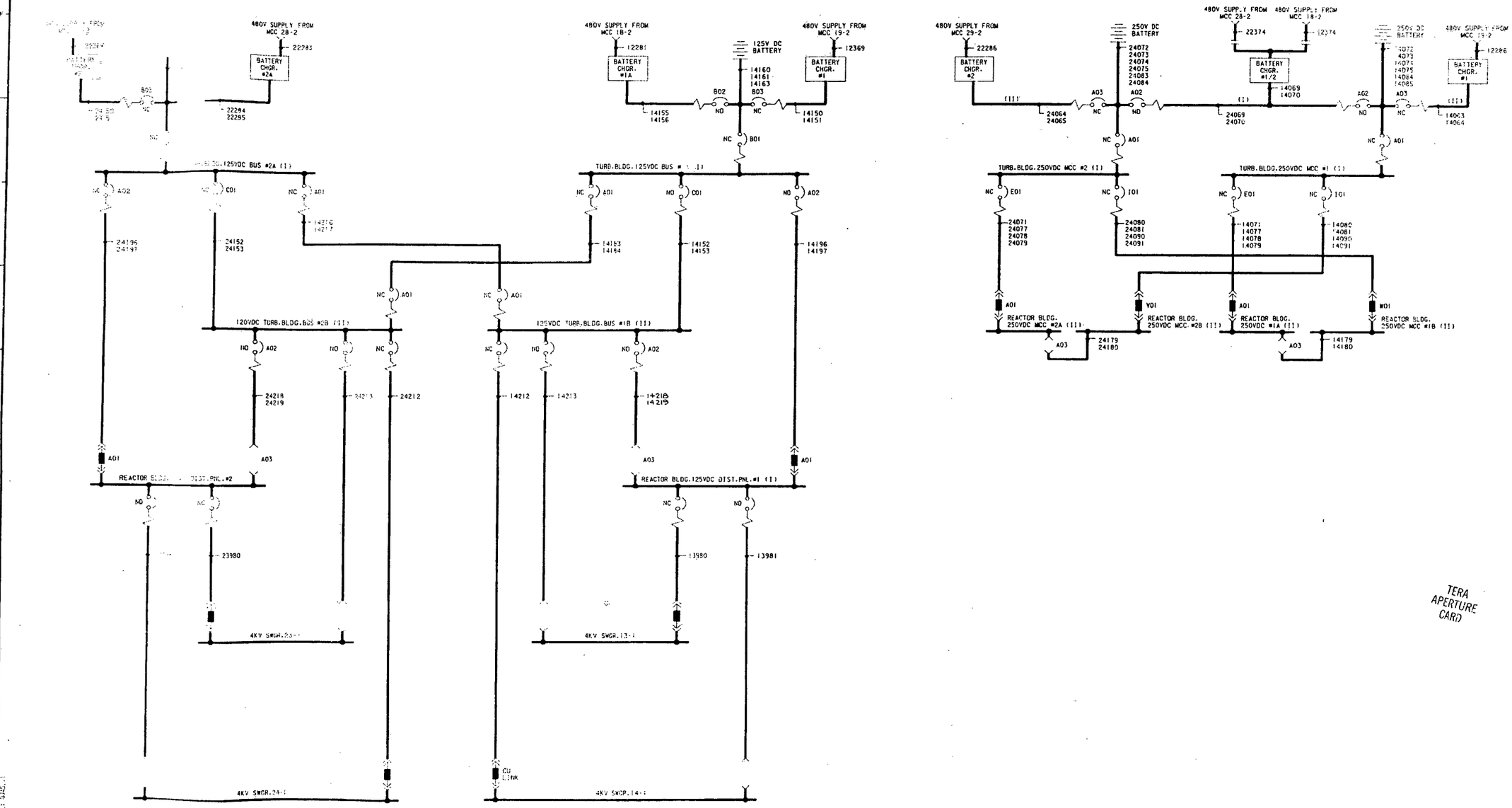
REV	DATE RELD	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	8-15-81	D. Miller			For C.E.C.O. Use	

SCALE: NONE
PROJECT NUMBER: 6401-00

SINGLE LINE DIAGRAM
EQUIPMENT REQUIRED TO MAINTAIN HOT SHUTDOWN
QUAD CITIES NUCLEAR POWER STATION
UNIT 1 & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

SARGENT & LUNDY ENGINEERS CHICAGO

DRAWING NO: ES-148 REV: 0
SHEET OF



TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING.

DRAWING RELEASE RECORD																			
REV	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM	REV	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
							0	8-13-81				FOR CECO USE	

SCALE: NONE
PROJECT NUMBER: 8401-60

SARGENT & LUNDY ENGINEERS

DRAWING NO. ES-148 REV. 0

SHEET 1 OF

ES-148

| SERVICE | SOURCE / USER | UNIT 1 | | |

ES-148

SERVICE	FIRE ZONE / EQUIP. NUMBER	UNIT 1																						UNIT 2																						UNIT 1 & 2					REMARKS
		1.1.1.1	1.1.2.3	1.1.2.4	1.1.1.2	1.1.1.3	1.1.1.4	1.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	11.1.4	11.3.1	11.3.2	11.3.3	11.3.4	11.1.2.2	11.1.2.3	11.1.2.4	11.1.2.5	1.2.2	6.2	7.0	8.2.1	11.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	
4160V BUS 13-1 STAND-BY DIESEL 1/2 FEED BREAKER															10614	10614		10614																												10614	10614	10614			
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																18471	18471	18471																																	
4160V BUS 13-1 STAND-BY DIESEL 1/2 FEED BREAKER					10356	10356											10356	10356																																	
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4160V BUS 14-1 STAND-BY DIESEL 1/2 FEED BREAKER																	10927	10927																																	
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TECH APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING.

DRAWING RELEASE RECORD

REV.	DATE RELD.	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM

DRAWING RELEASE RECORD

REV.	DATE RELD.	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	6-19-81	B. Mills			FOR NRC USE	

SCALE: NONE
PROJECT NUMBER: 6401

ROUTING OF ASSOCIATED CIRCUITS
BY FIRE ZONE
QUAD CITIES NUCLEAR POWER STATION
UNIT 1 & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

SARGENT & LUNDY ENGINEERS

DRAWING NO. ES-148 REV. 0

SHEET 1 OF

ES-148

UNIT 1 | UNIT 2 | UNIT 1 & 2

SERVICE	WIRE NUMBER	TIE ZONE 1.1.1.1	1.1.1.2	1.1.2.2	1.2.3	1.2.4	1.1.1.2	1.1.1.3	1.1.1.4	1.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	11.1.4	11.3.1	11.3.2	11.3.3	11.3.4	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5	1.1.2.2	6.2	7.0	8.2.1	11.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	REMARKS
480V TRANSFORMERS 1A & 1B BUSES 1A & 1B MAIN BREAKERS																																																				
								10942	10942																																												
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480V MISC. ANCILLARIES

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING.

TERA APERTURE CARD

DRAWING RELEASE RECORD

REV	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM

DRAWING RELEASE RECORD

REV	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	8-19-81	R. Miller			FOR SECO USE	

SCALE: NONE
PROJECT NUMBER: 6401

ROUTING OF ASSOCIATED CIRCUITS
BY FIRE ZONE
QUAD CITIES NUCLEAR POWER STATION
UNIT 1 & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

SARGENT & LUNDY ENGINEERS CHICAGO

DRAWING NO: ES-148
REV: 0
SHEET 1 OF

SHEET OF
ES-148
SA. FCAD

| SERVICE | LINE ZONE / ENGINEERING NUMBER | UNIT 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UNIT 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UNIT 1 & 2 | | | | | REMARKS |
|---|---|---

ES-148

SEE ROAD FILE: DRAWING 1

| SERVICE | FIRE ZONE / ROOM NUMBER | UNIT 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UNIT 2 | | | | | | | | | | | | | | | | | | | | | | | | | UNIT 1 & 2 | | | | | REMARKS |
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ES-148

S&L ECAD

| SERVICE | EQUIP. NUMBER | FIRE ZONE | UNIT 1 | | |

ES-148

SAL ECAD FILES \DWGS\ES-1

| SERVICE | FIRE ZONE / EQUIP. NUMBER | UNIT 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UNIT 2 | | | | | | | | | | | | | | | | | | | | | | UNIT 1 & 2 | | | | | REMARKS |
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ES-148

SEE ROAD FOR REMARKS

SERVICE	FIRE ZONE / EQUIP. NUMBER	UNIT 1																																UNIT 2																				UNIT 1 & 2					REMARKS
		1.1.1.1	1.1.1.3		1.1.2.2	11.2.3	11.2.4	1.1.1.2	1.1.1.3	1.1.1.4	1.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	11.1.1.4	11.3.1	11.3.2	11.3.3	11.3.4	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5	1.2.2	6.2	7.0	8.2.1	11.1.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	
ACIC SYSTEM VALVES	MO1-1301-22	10053				10053		10053																																															
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	MO1-1301-25							10018																																														
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	MO1-1301-26	10072				10072		10072																																														
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	MO1-1301-53	10078				10078		10078																																														
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	MO1-1301-60	10083				10083		10083																																														
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	MO1-1301-61	10088				10088		10088	10088																																												
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	MO1-1301-62	10093				10093		10093																																														
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TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING.

| DRAWING RELEASE RECORD | | | | | | | | | | | | | | | | | | |

ES-148

SEE ROAD FILE GUARDS-4

| SERVICE | EQUIP. NUMBER / FIRE ZONE | UNIT 1 | | |

ES-148

S&L ECAD FILE DGMS.4

| SERVICE | FIRE ZONE / LOCATION NUMBER | UNIT 1 | | |

ES-148

SAL ECAD FILE: QUADS-4

| SERVICE | FIRE ZONE / EQUIP. NUMBER | UNIT 1 | | |

ES-149

TABLE 1.2-1
QUAD CITIES 2 ALTERNATE SAFE HOT SHUTDOWN EQUIPMENT LIST

LOCATION	RCIC (SEE NOTE 2)	RHR SYSTEM (SEE NOTE 3) LPCI MODE	RHR SYSTEM (SEE NOTE 3) TORUS COOLING MODE	DIESEL GENERATORS (SEE NOTE 4) 2-6601 1/2-6601	INSTRUMENT RACKS 2202-5 2202-6	ELECTROMATIC RELIEF VALVES 2-0203-3A THRU 2-0203-3E	MECHANICAL SAFETY VALVES AND TARGET ROCK 2-0203-4A THRU 4H, 2-0203-3A
REACTOR BUILDING - BASEMENT FLOOR		X(DIV.II)	X	X OR X	X OR X	X	
FLOOR EL.554'-0"							
REACTOR BUILDING - GROUND FLOOR			X	X OR X	X OR X		X
FLOOR EL.595'-0"							
REACTOR BUILDING - MEZZANINE FLOOR			X(DIV.II)	X OR X	USE INSTRUMENT RACKS 2202-1,2202-4 & 2202-5B		X
FLOOR EL.623'-0"							
REACTOR BUILDING - MAIN FLOOR	X		X	X OR X	X OR X	X	
FLOOR EL.647'-6"							
REACTOR BUILDING - REACTOR FLOOR	X		X	X OR X	CONTROL ROOM	X	
FLOOR PLAN EL.666'-6"							
REACTOR BUILDING DRYWELL FLOORS EL.554'-0", 595'-0", 623'-0", 647'-6", 666'-6"	X		X	X OR X	X OR X		X
CONTROL ROOM FLOOR PLAN EL.623'-0"	X		X	Y OR X	X OR X		X
CABLE ROOM FLOOR PLAN EL.609'-0"	X		X	X OR X	X OR X		X
REMOTE SAFETY PANELS ROOM FLOOR EL.613'-6"	X		X	X OR X	X OR X		X
ELECTRIC EQUIPMENT AND COMPUTER ROOM FLOOR PLAN EL.595'-0"	X		X	X OR X	X OR X		X
BATTERY ROOMS FLOOR EL.628'-6"	X		X	X OR X	X OR X	X	
OCEAN & DIRTY OIL ROOM FLOOR EL.591'-0"	X		X	X OR X	CONTROL ROOM	X	
TURBINE BUILDING - BASEMENT FLOOR	X		X(USE UNIT 1 RHR SERV.WTR.PU'S.)	X OR X	CONTROL ROOM	X	
FLOOR EL.547'-0"							
TURBINE BUILDING FLOOR PLAN EL.572'-6"	X		X(DIV.II RHR SERV.WTR.)	X OR X	X OR X	X	
COLUMN C-E/ROW 4-9 UNIT 2 CABLE TUNNEL EL.580'-0"		X(DIV.I)	X(USE UNIT 1 RHR SERV.WTR.PU'S.)	X	X OR X	X	
TURBINE BUILDING - GROUND FLOOR EL.595'-0"		X(DIV.I)	X(USE UNIT 1 RHR SERV.WTR.PU'S.)	X	X OR X	X	
TURBINE BUILDING - MEZZANINE FLOOR EL.615'-6"	X		X(USE UNIT 1 RHR SERV.WTR.PU'S.)	X	X OR X	X	
TURBINE BUILDING - MAIN FLOOR EL.639'-0"	X		X	X OR X	CONTROL ROOM	X	
TURBINE BUILDING 480V SWITCHGEAR EL.647'-6"	X		X	X OR X	CONTROL ROOM	X	
TURBINE BUILDING - FAN FLOOR EL.628'-6"	X		X	X OR X	CONTROL ROOM	X	
DIESEL - GENERATOR AREAS EL.595'-0"	X		X **	X OR X	X OR X	X	
TURBINE BUILDING - RESIDUAL HEAT REMOVAL SERVICE WATER AND DIESEL - GENERATOR COOLING. UNIT 2 FLOOR EL.547'-0"	X		X(USE UNIT 1 RHR SERV.WTR.PU'S.)	X OR X	CONTROL ROOM	X	
TURBINE BUILDING - HPCI UNIT 2 FLOOR EL.554'-0"	X		X	X OR X	CONTROL ROOM	X	
REACTOR BUILDING UNIT 2 SOUTHWEST CORNER ROOM FLOOR EL.554'-0"		X	X	X OR X	CONTROL ROOM	X	
REACTOR BUILDING UNIT 2 SOUTHEAST CORNER ROOM FLOOR EL.554'-0"	X		X(DIV.I)	X OR X	CONTROL ROOM	X	
REACTOR BUILDING UNIT 2 NORTHWEST CORNER ROOM FLOOR EL.554'-0"	X		X	X OR X	CONTROL ROOM	X	
REACTOR BUILDING UNIT 2 NORTHEAST CORNER ROOM FLOOR EL.554'-0"	X		X(DIV.II)	X OR X	CONTROL ROOM	X	

NOTE 1:
ALL EQUIPMENT DESIGNATED BY AN X FOR EACH ZONE LISTED ABOVE IS REQUIRED FOR SHUTDOWN.

NOTE 2:
RCIC INCLUDES FOLLOWING EQUIPMENT:
- RCIC PUMP 2-1302
- RCIC TURBINE 2-1303
- VACUUM PUMP
- RCIC CONDENSATE PUMP
- BAROMETRIC CONDENSER
- RCIC ROOM EMERGENCY COOLER 2-5746B

** USE DIVISION ASSOCIATED WITH UNAFFECTED DIESEL GENERATOR

NOTE 3:
RHR INCLUDES FOLLOWING EQUIPMENT: (ONE DIVISION SUFFICIENT FOR SAFE SHUTDOWN)

RHR PUMPS	2-1002A	RHR SERVICE WATER PUMPS:	2-1001-65A
	2-10028		2-1001-65B
	2-1002C		2-1001-65C
	2-1002D		2-1001-65D
RHR ROOM COOLERS:	2-5746A	RHR SERV WTR PMP CUB COOLERS:	2-5745A
	2-5746B		2-5745B
			2-5745C
			2-5745D

NOTE 4:
DIESEL GENERATORS INCLUDE FOLLOWING EQUIPMENT: (ONE DIESEL AND ITS AUXILIARIES SUFFICIENT FOR SAFE SHUTDOWN)

DG COOLING WATER PUMPS	2-3903
	1/2-3903
DG ENG WTR PMP CUB COOLERS	2-5749
	1/2-5749
DG ROOM VENTILATION FANS	2-5727
	1/2-5727
DG FUEL OIL TRANSFER PUMPS	2-5203
	1/2-5203

TABLE 1.2-2
QUAD CITIES UNIT 2
ALTERNATE SAFE HOT SHUTDOWN VALVE LIST

RCIC VALVES

MO2-1301-22	CONDENSATE STORAGE SUCTION ISOLATION VALVE
MO2-1301-25	SUPPRESSION POOL SUCTION ISOLATION VALVE
MO2-1301-26	SUPPRESSION POOL SUCTION ISOLATION VALVE
MO2-1301-48	INJECTION LINE ISOLATION VALVE
MO2-1301-49	INJECTION LINE ISOLATION VALVE
MO2-1301-16	STEAM SUPPLY ISOLATION VALVE
MO2-1301-17	STEAM SUPPLY ISOLATION VALVE
MO2-1301-61	STEAM SUPPLY SHUTOFF VALVE
MO2-1301-60	TEST RETURN TO SUPP.POOL ISOLATION VALVE
MO2-1301-63	TEST RETURN TO CONDENSATE ISOLATION VALVE
MO2-1301-62	COOLING WATER SHUTOFF VALVE

RHR VALVES

MO2-1001-74A,B,C,D	RHR PUMP SUCTION FROM SUPPRESSION POOL ISOLATION VALVES
MO2-1001-66A & B	RHR HX BYPASS VALVES
MO2-1001-49A & B	RHR HX DISCHARGE CROSSTIE VALVES
MO2-1001-34A & B	RHR RETURN TO SUPP.POOL ISOLATION VALVES
MO2-1001-36A & B	RHR RETURN TO SUPP.POOL ISOLATION VALVES
MO2-1001-37A & B	RHR RETURN TO SUPP.POOL SPRAY VALVES
MO2-1001-29A & B	RHR LPCI INJECTION ISOLATION VALVES
MO2-1001-29A & B	RHR LPCI INJECTION ISOLATION VALVES
MO2-1001-18A & B	RHR PUMP MINIFLOW BYPASS VALVES
MO2-1001-23A & B	RHR CONT SPRAY OUTBOARD ISOLATION VALVES
MO2-1001-26A & B	RHR CONT SPRAY INBOARD ISOLATION VALVES
MO2-1001-44A & B	RHR SW PUMP DISCHARGE ISOLATION VALVES
MO2-1001-186A & B	RHR SW HX BYPASS ISOLATION VALVES
MO2-1001-187A & B	RHR SW HX BYPASS ISOLATION VALVES
MO2-1001-185A & B	RHR SW HX DISCHARGE ISOLATION VALVES
MO2-1001-45A & B	RHR SW HX DISCHARGE ISOLATION VALVES

TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING.

DRAWING RELEASE RECORD																			
REV.	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM	REV.	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
							0	5-19-81				FOR CECO USE	

SCALE: NONE
PROJECT NUMBER: 6401

SHUTDOWN EQUIPMENT LIST
QUAD CITIES NUCLEAR POWER STATION
UNIT 1 & 2
COMMONWEALTH EDISON COMPANY
CHICAGO, ILLINOIS

SARGENT & LUNDY ENGINEERS CHICAGO

DRAWING NO: ES-149
REV: 0
SHEET 1 OF

ALL REPRODUCTIONS MUST BE MADE FROM THIS ORIGINAL

17"
22"

ES-149

SWGR/DC	FIRE ZONE / CUBICLE	UNIT 1																						UNIT 2																						UNIT 1 & 2					REMARKS
		1.1.2.1	1.1.3	1.1.4	1.2.3	1.2.4	1.1.1.2	1.1.1.3	1.1.1.4	1.1.1.5	1.2.1	6.1	7.0	8.2.1	1.1.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	1.1.1.4	1.3.1	1.3.2	1.3.3	1.3.4	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5	1.2.2	6.2	7.0	8.2.1	1.1.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	9.1	9.0	
125V DC DISTRIBUTION	BATT.CHGR.1																																		22369							22369											
	BATT.CHGR.1A																																		22283							22283											
	125V DC MCC 1A FEED																																		24160	24160																	
																																			24161	24161																	
																																					24163																	
	125V DC MCC 2B FEED											13183					14183	14183	14183																																			
												13184					14184	14184	14184																																			
																																			24152																		
																																			24153																		
	125V DC MISC.PNL.2 FEED																														24196				24196							24196											
																															24197				24197							24197											
																													24218						24218						24218	24218										
																													24219						24219						24219	24219										
	4kV SWGR 23 DC FEED																																		24201						24201	24201										
																																			24185						24185	24185										
	4kV SWGR 23-1 DC FEED																																		24213							24213	24213									
																															23980											23980	23980									
	4kV SWGR 24 DC FEED																																		24203						24203	24203										
																																			24187						24187	24187										
	4kV SWGR 24-1 DC FEED																														23981											23981	23981									
																																			24212							24212	24212									
	480V SWGR 28 DC FEED																														23982	23982																				
																															24214				24214							24214										
	480V SWGR 29 DC FEED																														23983											23983										
																															24215				24215							24215										
	BATT.CHGR.2																																		22286							22286										
																																			24064							24064										
																																			24065							24065										
	125V DC MCC 2 FEED																																		24072	24072						24072										
																																			24073	24073						24073										
																																			24074	24074						24074										
																																			24075																		
																																				24083																	
																																				24084																	
	125V DC MCC 2A FEED																														24071				24071							24071										
																															24077				24077							24077										
																															24078				24078							24078										
																															24079				24079							24079										
	125V DC MCC 2B FEED											14080																			14080				14080					14080	14080	14080									
												14081																			14081				14081					14081	14081	14081									
												14090																			14090				14090					14090	14090	14090									
												14091																			14091				14091					14091	14091	14091									
	125V DC MCC 2A & 2B FEED																												25179																							
																													24180																							

TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING.

DRAWING RELEASE RECORD

REV.	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM

DRAWING RELEASE RECORD

REV.	DATE REL'D	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	5-19-81	[illegible]			FOR CASE USE	

SCALE: NONE
PROJECT NUMBER: 7447

SARGENT & LUNDY ENGINEERS

DRAWING NO. ES-149 REV. 0

SHEET 2 OF

ES-149

SAIL BOARD NO. [illegible]

| SERVICE | FROM / TO / CABLE NUMBER | FIRE ZONE | UNIT 1 | | |

ES-149

S&L ROAD FILE: CURVES.5

| SERVICE | FIRE ZONE EQUIP. NUMBER | UNIT 1 | | |

ES-149

SAL ECAD FILE: NUAMES.S

SERVICE	FIRE ZONE / EQUIP. NUMBER	UNIT 1																										UNIT 2																										UNIT 1 & 2					REMARKS
		11.1.1	11.1.3		11.2.2	11.2.3	11.2.4	11.1.1.2	11.1.1.3	11.1.1.4	11.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	11.1.2.1	11.1.4	11.3.1	11.3.2	11.3.3	11.3.4	11.2.2	11.2.3	11.1.2.4	11.1.2.5	1.2.2	6.2	7.0	8.2.1	11.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	
RHR SYSTEM PUMPS	2-1001-28																													20900	20900	20900																	20900	20900					
	2-1001-28																													20906	20906	20906																	20906	20906					
	2-1001-2C																																				20902	20902	20902	20902	20902	20902					20902	20902	20902	20902		
	2-1001-2D																																				20908	20908	20908	20908	20908	20908					20908	20908	20908	20908		
RHR SYSTEM HEAT EXCHANGERS	2-5746A																													21352	21352	21352																								
	2-5746B																													21353	21353	21353																								
																														21367	21367	21367																								
RHR SERVICE WATER PUMPS	2-1001-65A														20688				20688	20688																			20688																				
	2-1001-65B														20694				20694	20694																			20694																				
	2-1001-65C																																																																	
	2-1001-65D																																																																
RHR SERVICE WATER PUMP COMPLEX COOLERS	2-5745A																																																																
	2-5745B																																																																
	2-5745C																																																															
	2-5745D																																																															

ES-149

S&L FORM [illegible]

UNIT 1 | UNIT 2 | UNIT 1 & 2

SERVICE	FIRE ZONE / CABLE NUMBER	1.1.1.1	1.1.1.3	1.1.2.3	1.1.2.4	1.1.1.2	1.1.1.3	1.1.1.4	1.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	1.1.1.4	1.1.3.1	1.1.3.2	1.1.3.3	1.1.3.4	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5	1.2.2	6.2	7.0	8.2.1	11.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	REMARKS
RR SYSTEM VALVES	M02-1001-4A																										20204	20204	20204																				20204	20204	20204			
																											20212	20212	20212																								
																											20227	20227	20227																								
	M02-1001-4B																											20228	20228																					20228	20228			
																									20229			20229	20229																								
																									20233			20233	20233																								
	M02-1001-5A																										22502	22502	22502																								
																											22705	22705	22705																								
																													22716																					22716	22716			
																											22742	22742	22742																								
																													22953																						22953		
	M02-1001-5B																								22503			22503	22503																								
																									22706			22706																								
																												22732																								
																									22744			22744	22741																								
																													22954																						22954		
	M02-1001-7A																										22518	22518	22518																								
																											22519	22519	22519																								
																											22520	22520	22520																								
																													22521																						22521	22521	22521		
																													22522																						22522	22522	22522		
	M02-1001-7E																										22523	22523	22523																								
																											22524	22524	22524																								
																											22525	22525	22525																								
																													22526																						22526	22526	22526		
																													22527																						22527	22527	22527		
	M02-1001-7C																								22890			22890	22890																								
																									22891			22891																								
																									22892			22892																								
																													22893																						22893		
	M02-1001-7D																								22895			22895	22895																								
																									22896			22896																								
																									22897			22897																								
																													22899																						22899		
	M02-1001-7EA																										22679	22679	22679																								
																											22680	22680	22680																								
																													22681																						22681	22681			
																											22682	22682	22682																								
	M02-1001-7EB																								22960			22960	22960																								
																									22961			22961	22961																								
																													22962																						22962	22962	22962		
																									22963			22963	22963																								
	M02-1001-7EA																						22675					22675	22675																								
																							22676						22676																								
																													22677																						22677	22677			
																							22678					22678	22678																								
	M02-1001-7EB																						22956					22956	22956																								
																							22957					22957	22957																								
																													22958																						22958	22958	22958		
																							22959					22959	22959																								
	M02-1001-7E																										22657	22657	22657																								
																											22658	22658	22658																								
																													22659																						22659	22659			
																											22660	22660	22660																								
																							29503																														
																							29681																														
																							29682			29682																												

TERA APERTURE CARD

NUCLEAR SAFETY RELATED
EQUIPMENT IS SHOWN ON THIS DRAWING

DRAWING RELEASE RECORD

REV	DATE RELD	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM
0	8-19-81	[illegible]			50% CSED USE	

DRAWING RELEASE RECORD

REV	DATE RELD	PREPARED	REVIEWED	APPROVED	PURPOSE	FILM

SCALE: NONE
PROJECT NUMBER: 6401

ROUTING OF ASSOCIATED CIRCUITS BY FIRE ZONE
QUAD CITIES NUCLEAR POWER STATION
UNIT 1 & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

SARGENT & LUNDY ENGINEERS CHICAGO

DRAWING NO: ES-149
REV: 0
SHEET 6 OF

ES-149

SAL ECAD FILE: 2SMS5.5

| SERVICE | FIRE ZONE / LINE NUMBER | UNIT 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UNIT 2 | | | | | | | | | | | | | | | | | | | | | | | | | | UNIT 1 & 2 | | | | REMARKS |
|---|---|---

ES-149

SEE ROAD FILE DRAWINGS

SERVICE	FIRE ZONE / EQUIP. NUMBER	UNIT 1																																UNIT 2																										UNIT 1 & 2					REMARKS
		1.1.1	1.1.2	1.2.1	1.2.2	11.2.3	11.2.4	1.1.1.2	1.1.1.3	1.1.1.4	1.1.1.5	1.2.1	6.1	7.0	8.2.1	11.1.1	8.2.3	8.2.4	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	1.1.2.1	11.1.4	11.3.1	11.3.2	11.3.3	11.3.4	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5	11.2.2	6.2	7.0	8.2.1	11.1.2	8.2.2	8.2.5	8.2.6	8.2.7	8.2.8	8.2.9	8.2.10	9.0	2.0	3.0	6.3	8.1	9.0	
RHR SYSTEM VALVES	MO2-1001-178																								22972						22972																														
																									22973						22973																														
																									22974						22974																														
																																22975																														
	MO2-1001-185A																														20242	20242																												
																															20243	20243	20243																												
																															20244	20244	20244																												
	MO2-1001-185B																														20245	20245																												
																											20355				20355																												
																											20356				20356	20356																												
	MO2-1001-186A																														20234	20234																												
																															20237	20237	20237																												
																															20238	20238	20238																												
	MO2-1001-186B																														20239	20239																												
																											20240				20240	20240																												
																											20241				20241	20241																												
	MO2-1001-187A																														20351	20351																												
																															20352	20352	20352																												
																															20353	20353	20353																												
	MO2-1001-187B																														20367																												
																											20368				20369	20368																												
																											20369				20369	20369																												
RCIC SYSTEM TURBINE & AUXILIARIES	PUMP & TURBINE																									20012																																
																										20021																																
																									20022																																
																									20023																																
	VACUUM PUMP																													20004																												
																									20006	20006				20006	20006																												
																									20007	20007				20007	20007																												
																															20019	20019																												
																									76049	76049				76049	76049																												
	CONDENSATE PUMP																													20005																												
																										20002				20002	20002																												
																										20003				20003	20003																												
																															20009	20009																												
																									76048	76048				76048	76048																												
	EMERG. RM. HEATERS																														22773	22773																												
																									22774			22774		22774	22774																												
																									22783			22783		22783	22783																												
																									22786	22786				22786	22786																												
RCIC SYSTEM PIPING	MO2-1001-136																														20041																												
																															20042	20042																												
																															20043																												
																															20044	20044																												
																																20045																												