

## Attachment 1 - Requested Drawings

The following provides a summary of the drawings provided and the NRC Question the drawings are associated with.

### Question 1

- F-03043, 230KV, 24KV & 4160 Volt Systems Key One Line Diagram

### Question 2

- F-30053, 480 Volt System MCC 1CA, 1CB, 1PA, & 1SA Auxiliary One Line Diagram
- F-03053, 480 Volt System MCC 2CA, 2CB, 2PA, & 2SA Auxiliary One Line Diagram

### Question 3

- Drawing 7002546D11501, One Line Diagram (Sheet 1)
- Sketch SK-79694-Z-7422, 4160 Volt Switchgear 1C Compartment "1-A3B" SUPP Diesel Gen Incoming Line Control Wiring Diagram
- Drawing LL-91003 (Sheet 45), 4160 Volt Switchgear 1C Compartment "1-AB9" Unit Trip/Load Shed Circuitry Control Wiring Diagram

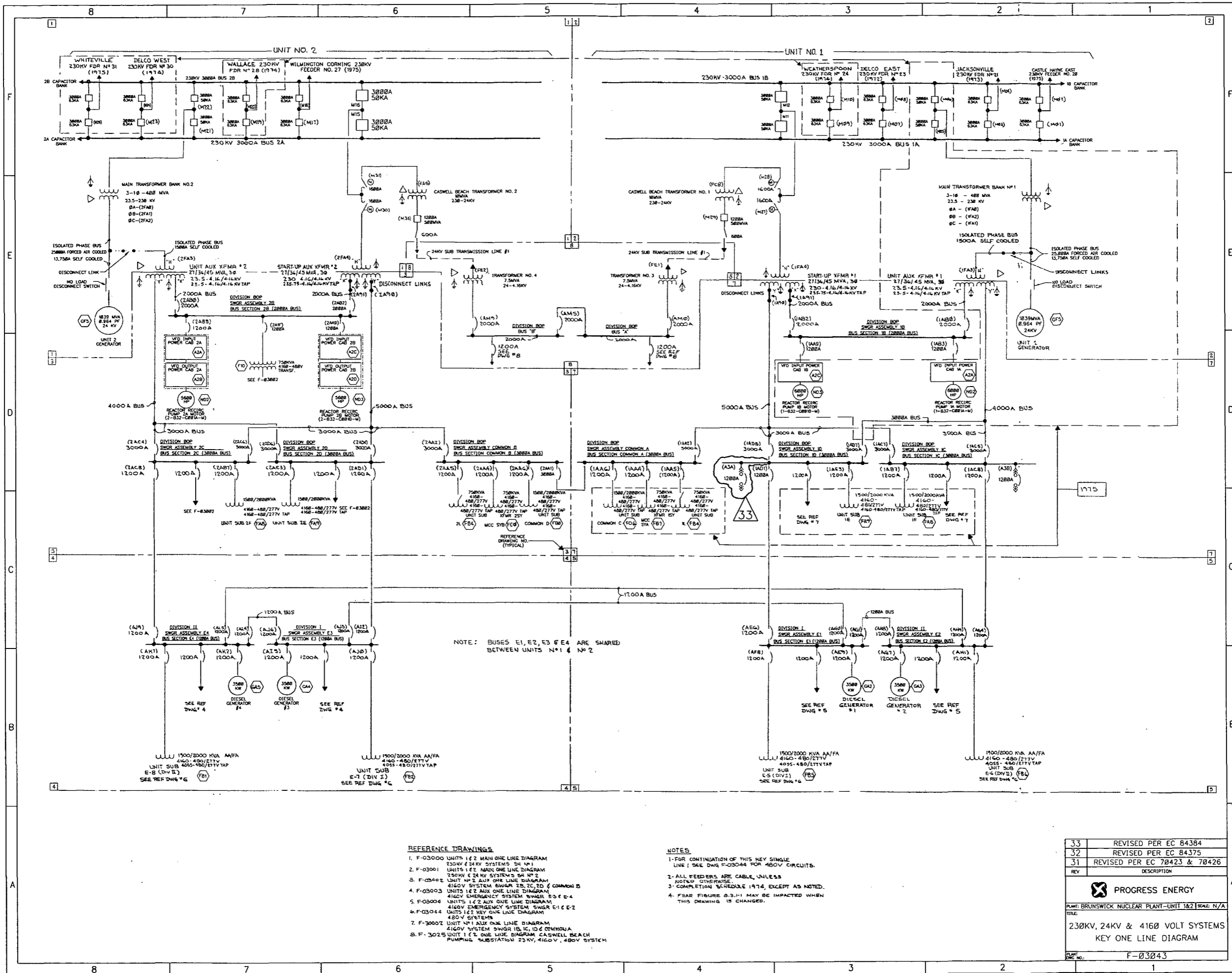
### Question 4

Drawing NRC RAI 4 (Sheet 1), SUPP-DG Location, Site Plot Plan

Drawing NRC RAI 4 (Sheet 2), SUPP-DG General Arrangement

### Question 5

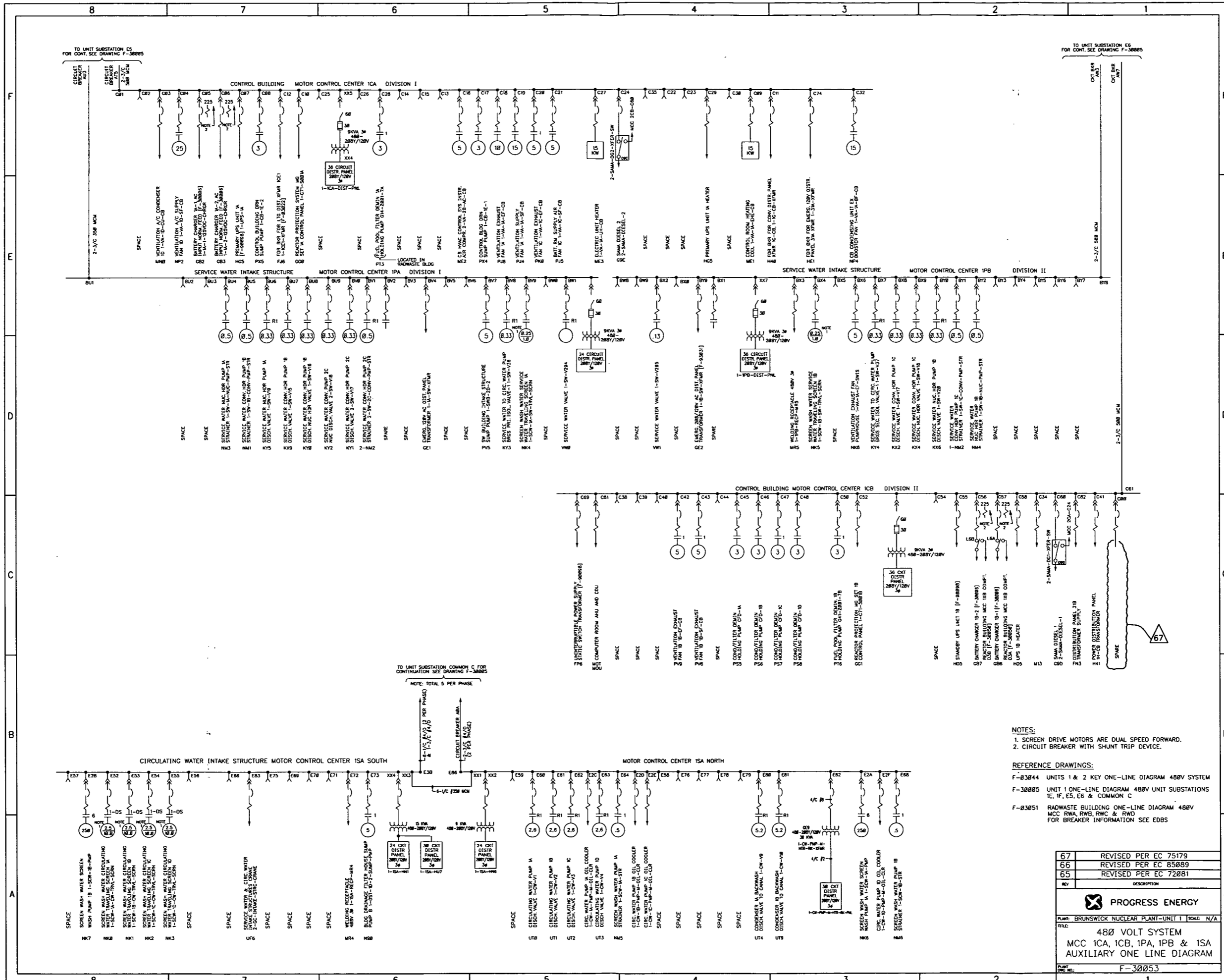
- Drawing 7002546D11501, One Line Diagram (Sheet 1) - See Question 3
- Drawing 7002546D11501, One Line Diagram (Sheet 2) – See Question 3
- Drawing 7002546D11503, MCC Schematic (Sheets 1 through 5)
- Drawing 7002646D11504, Enclosure Schematic (Sheet 1)
- Drawing 7002546D02503, DC Power Schematic (Sheet 1)



- REFERENCE DRAWINGS**
- F-03000 UNITS 1 & 2 MAIN ONE LINE DIAGRAM 230KV & 24KV SYSTEMS SH N#1
  - F-03001 UNITS 1 & 2 MAIN ONE LINE DIAGRAM 230KV & 24KV SYSTEMS SH N#2
  - F-03002 UNIT #2 AUX ONE LINE DIAGRAM 4160V SYSTEM SWGR 2B, 2C, 2D & COMMON B
  - F-03003 UNITS 1 & 2 AUX ONE LINE DIAGRAM 4160V EMERGENCY SYSTEM SWGR E3 & E4
  - F-03004 UNITS 1 & 2 AUX ONE LINE DIAGRAM 4160V EMERGENCY SYSTEM SWGR E1 & E2
  - F-03044 UNITS 1 & 2 KEY ONE LINE DIAGRAM 480V SYSTEM
  - F-30007 UNIT #1 AUX ONE LINE DIAGRAM 4160V SYSTEM SWGR 1B, 1C, 1D & COMMON A
  - F-30225 UNIT 1 & 2 ONE LINE DIAGRAM CASWELL BEACH PUMPING SUBSTATION 23KV, 4160V, 480V SYSTEM

- NOTES**
- FOR CONTINUATION OF THIS KEY SINGLE LINE; SEE DWG F-03044 FOR 480V CIRCUITS.
  - ALL FEEDERS ARE CABLE UNLESS NOTED OTHERWISE.
  - COMPLETION SCHEDULE 1974 EXCEPT AS NOTED.
  - FEAR FIGURE 0.3-11 MAY BE IMPACTED WHEN THIS DRAWING IS CHANGED.

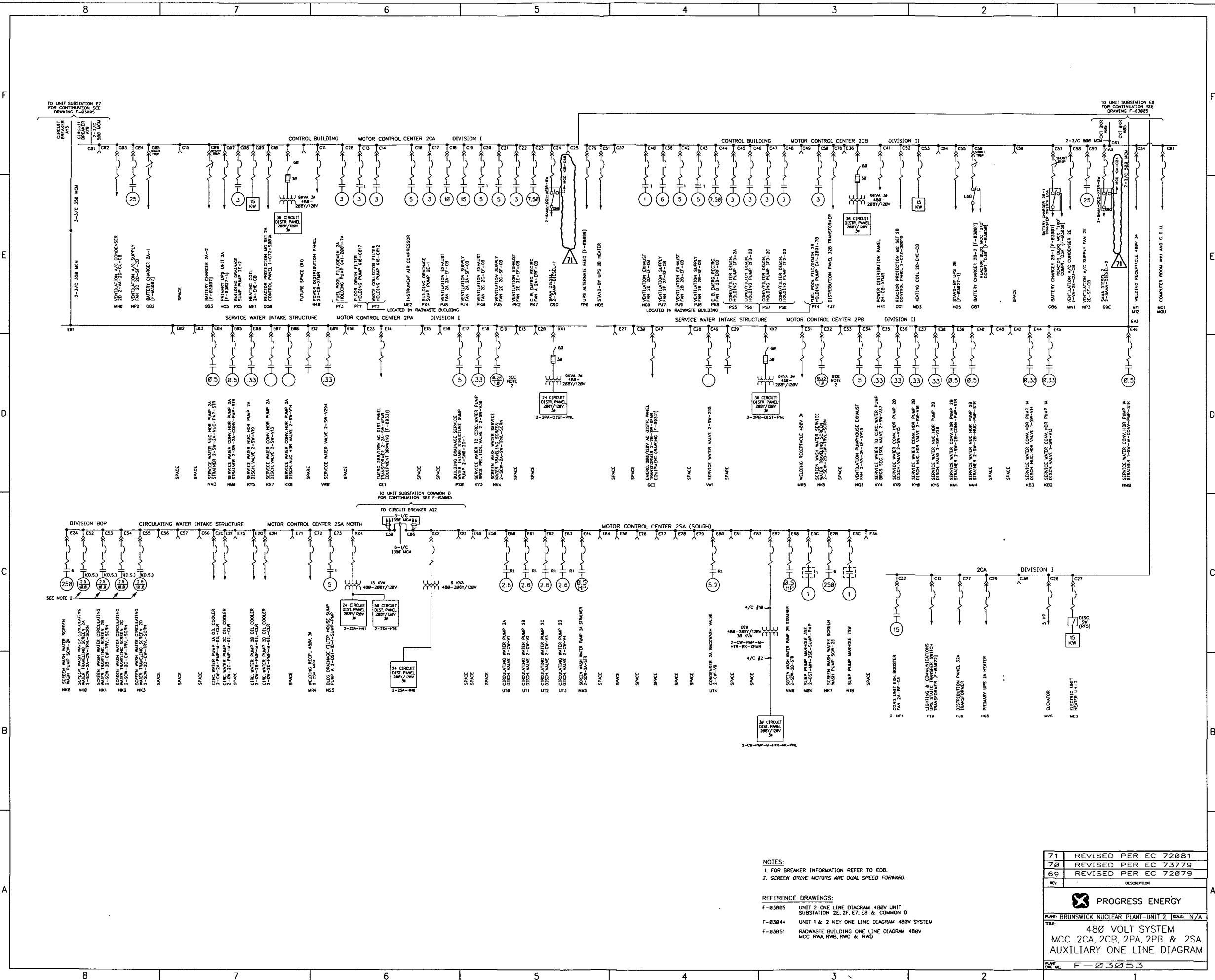
33	REVISED PER EC 84384
32	REVISED PER EC 84375
31	REVISED PER EC 70423 & 70426
REV	DESCRIPTION
<b>PROGRESS ENERGY</b>	
PLANT: BRUNSWICK NUCLEAR PLANT-UNIT 1&2 SCALE: N/A	
TITLE: 230KV, 24KV & 4160 VOLT SYSTEMS KEY ONE LINE DIAGRAM	
DRAWING NO.: F-03043	



NOTES:  
 1. SCREEN DRIVE MOTORS ARE DUAL SPEED FORWARD.  
 2. CIRCUIT BREAKER WITH SHUNT TRIP DEVICE.

REFERENCE DRAWINGS:  
 F-03044 UNITS 1 & 2 KEY ONE-LINE DIAGRAM 480V SYSTEM  
 F-30005 UNIT 1 ONE-LINE DIAGRAM 480V UNIT SUBSTATIONS IE, IF, ES, E6 & COMMON C  
 F-03051 RADWASTE BUILDING ONE-LINE DIAGRAM 480V MCC RWA, RWB, RWC & RWD FOR BREAKER INFORMATION SEE E0B5

67	REVISED PER EC 75179
66	REVISED PER EC 85089
65	REVISED PER EC 72061
REV	DESCRIPTION
 <b>PROGRESS ENERGY</b>	
PLANT: BRUNSWICK NUCLEAR PLANT-UNIT 1 SCALE: N/A	
TITLE: 480 VOLT SYSTEM MCC 1CA, 1CB, 1PA, 1PB & 1SA AUXILIARY ONE LINE DIAGRAM	
PLANT NO.: F-30053	

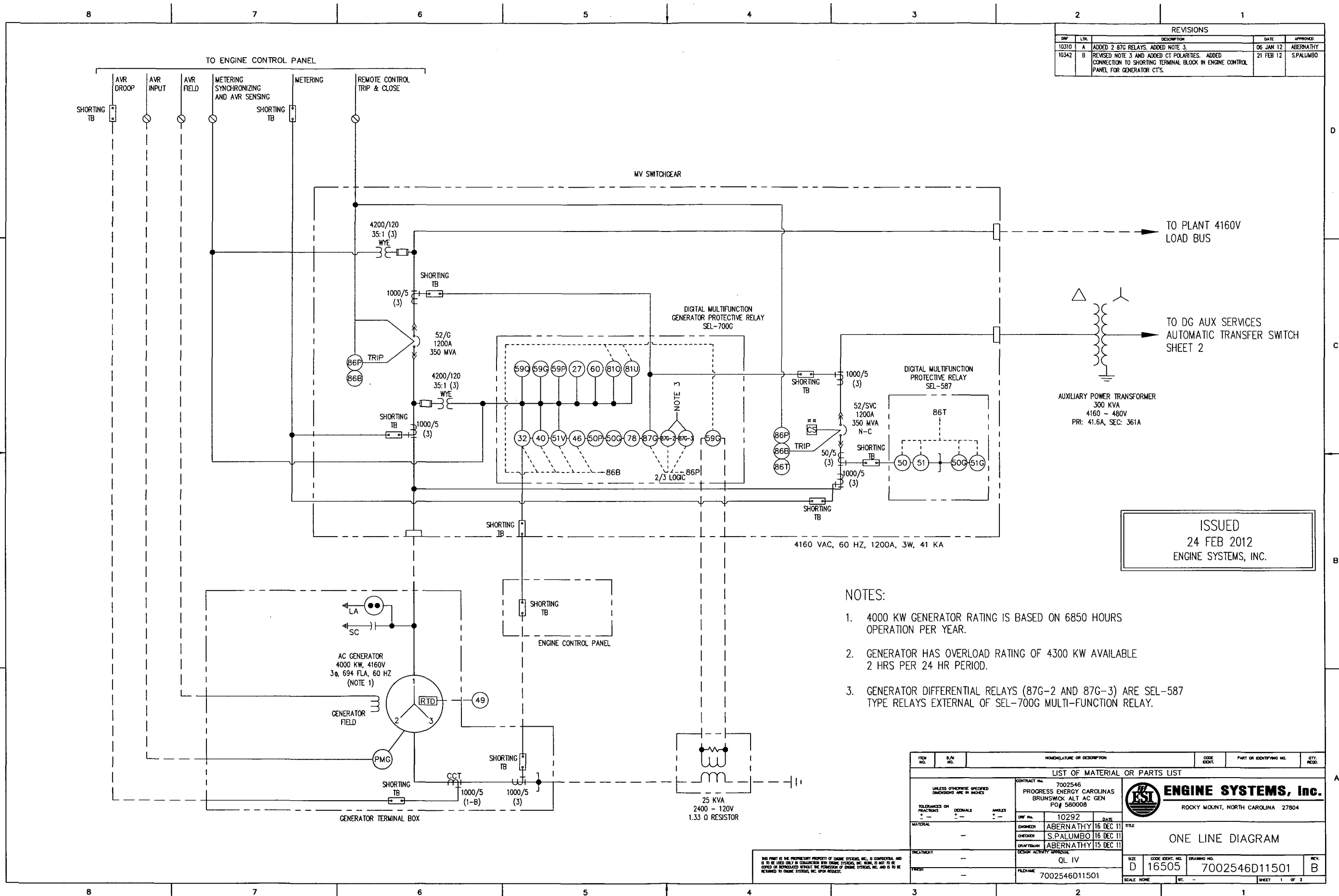


**NOTES:**  
 1. FOR BREAKER INFORMATION REFER TO EDB.  
 2. SCREEN DRIVE MOTORS ARE DUAL SPEED FORWARD.

**REFERENCE DRAWINGS:**  
 F-03085 UNIT 2 ONE LINE DIAGRAM 480V UNIT SUBSTATION 2E, 2F, E7, E8 & COMMON D  
 F-03044 UNIT 1 & 2 KEY ONE LINE DIAGRAM 480V SYSTEM  
 F-03051 RADWASTE BUILDING ONE LINE DIAGRAM 480V MCC RWA, RWB, RWC & RWD

71	REVISED PER EC 72081
70	REVISED PER EC 73779
69	REVISED PER EC 72079
REV	DESCRIPTION
PLANT: BRUNSWICK NUCLEAR PLANT-UNIT 2 SCALE: N/A TITLE: 480 VOLT SYSTEM MCC 2CA, 2CB, 2PA, 2PB & 2SA AUXILIARY ONE LINE DIAGRAM PLANT NO.: F-03053	

REVISIONS				
REF.	CHK.	DESCRIPTION	DATE	APPROVED
10310	A	ADDED 2 87G RELAYS. ADDED NOTE 3.	06 JAN 12	ABERNATHY
10342	B	REVISED NOTE 3 AND ADDED CT POLARITIES. ADDED CONNECTION TO SHORTING TERMINAL BLOCK IN ENGINE CONTROL PANEL FOR GENERATOR CT'S.	21 FEB 12	S.PALUMBO



TO PLANT 4160V  
LOAD BUS

TO DG AUX SERVICES  
AUTOMATIC TRANSFER SWITCH  
SHEET 2

ISSUED  
24 FEB 2012  
ENGINE SYSTEMS, INC.

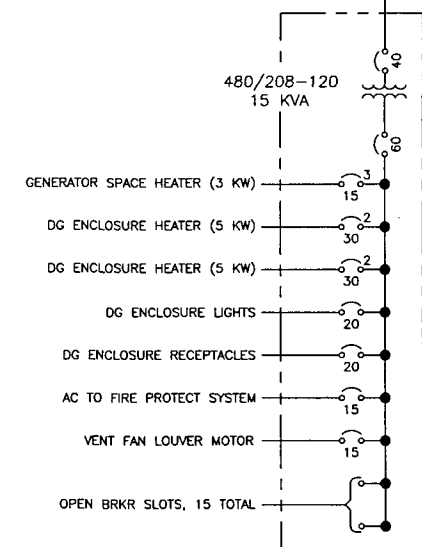
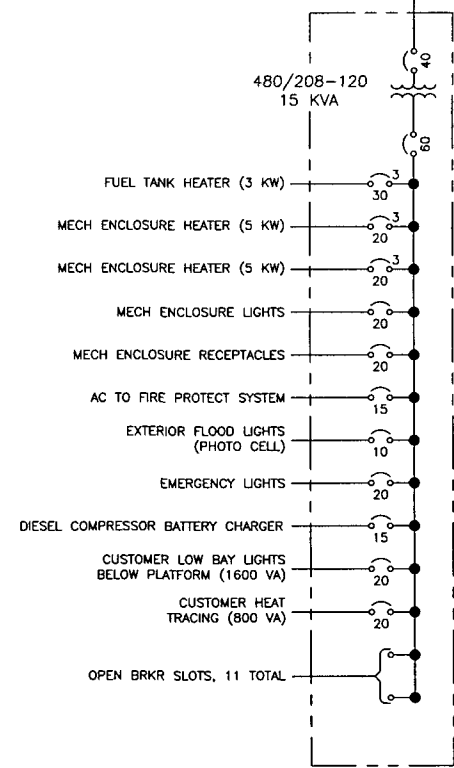
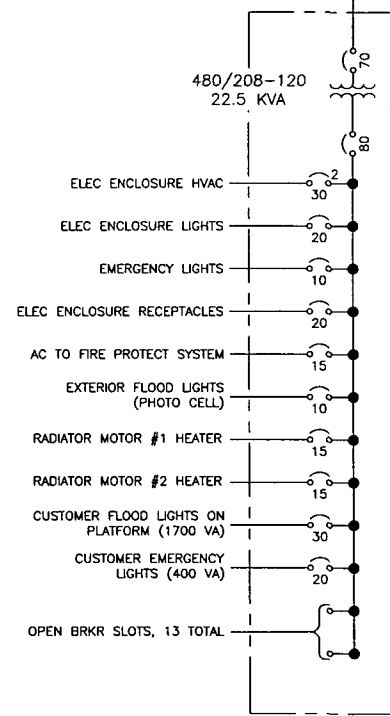
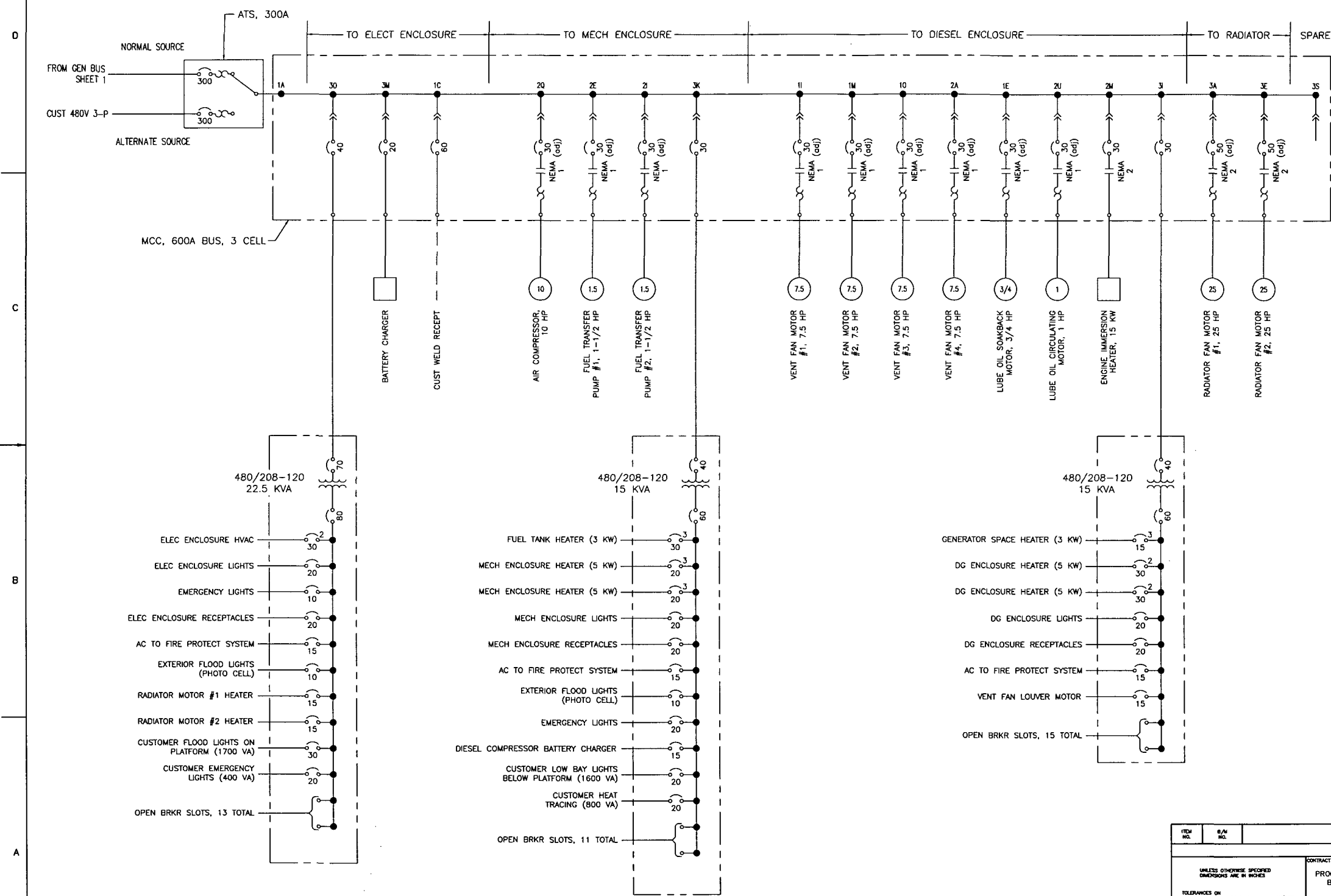
- NOTES:
- 4000 KW GENERATOR RATING IS BASED ON 6850 HOURS OPERATION PER YEAR.
  - GENERATOR HAS OVERLOAD RATING OF 4300 KW AVAILABLE 2 HRS PER 24 HR PERIOD.
  - GENERATOR DIFFERENTIAL RELAYS (87G-2 AND 87G-3) ARE SEL-587 TYPE RELAYS EXTERNAL OF SEL-700G MULTI-FUNCTION RELAY.

ITEM NO.	QTY	UOM	DESCRIPTION	CODE	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			CONTRACT NO. 7002546 PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEN PO# 580008			
TOLERANCES ON FRACTIONS DECIMALS ANGLES			ENGINE SYSTEMS, Inc. ROCKY MOUNT, NORTH CAROLINA 27804			
MATERIAL		QTY.	DESCRIPTION	DATE	TITLE	
-		1	ABERNATHY	16 DEC 11	ONE LINE DIAGRAM	
-		1	S.PALUMBO	16 DEC 11	-	
-		1	ABERNATHY	15 DEC 11	-	
DESIGN ACTIVITY APPROVAL			-			
TREATMENT			QL IV			
FRESH			-			
FILE NAME			7002546D11501			
SIZE	CODE IDENT. NO.	DRAWING NO.	REV.			
D	16505	7002546D11501	B			
SCALE	NONE	WT.	SHEET 1 OF 2			

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# ELECTRICAL ENCLOSURE

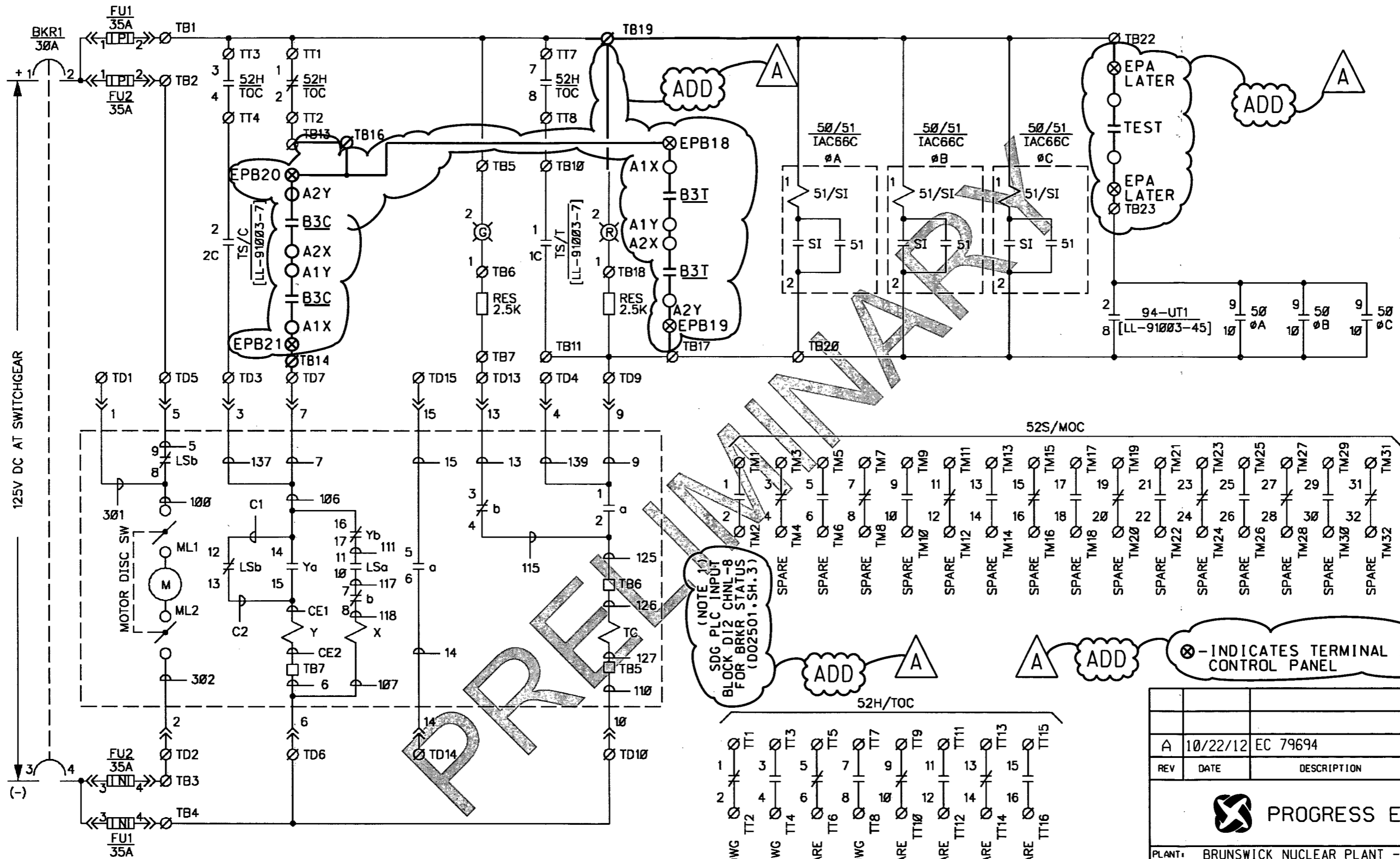
REVISIONS				
REV	LTR	DESCRIPTION	DATE	APPROVED
10310	A	REVISED ATS TO INCLUDE BREAKER ELEMENTS. DELETED FUSED SWITCH AT ATS SOURCES. REVISED VENT FAN MOTOR SIZE. REMOVED BRKR FOR ENGINE CONTROLS AT ELEC ENCLOSURE PANEL. REVISED FUEL TANK HTR BRKR SIZE. MOVED DIESEL COMP BATTERY CHARGER BRKR TO MECH ENCLOSURE PANEL. REMOVED RAD HTR BRKR'S FROM DIESEL ENCLOSURE PANEL. REMOVED 125 VDC BATTERIES.	06 JAN 12	ABERNATHY
10342	B	REMOVED DUPLICATE DIESEL COMPRESSOR BATTERY CHARGER. CORRECTED MCC SECTION IDENTIFICATIONS AND MPZ BREAKER LOADS. REVISED BREAKER FOR IMMERSION HEATER TO 30A.	21 FEB 12	S.PALUMBO



ISSUED  
24 FEB 2012  
ENGINE SYSTEMS, INC.

ITEM NO.	QTY	DESCRIPTION	CODE	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO. 7002546		ENGINE SYSTEMS, Inc.	
		PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEN PO# 580008		ROCKY MOUNT, NORTH CAROLINA 27804	
TOLERANCES ON FRACTIONS DECIMALS ANGLES		DWF No. 10292		DATE 16 DEC 11	
		DESIGNED BY ABERNATHY		CHECKED BY S.PALUMBO	
		DRAFTSMAN ABERNATHY		DATE 15 DEC 11	
TREATMENT		DESIGN ACTIVITY APPROVAL		TITLE ONE LINE DIAGRAM	
		QL IV		SIZE D	
FRESH		FILENAME 7002546D11501		CODE EXCT. NO. 16505	
				DRAWING NO. 7002546D11501	
				REV. B	
				SCALE NONE	
				SHEET 2 OF 2	

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(NOTE 1)  
SDG PLC INPUT  
BLOCK DI2 CHNL-8  
FOR BRKR STATUS  
(002501.SH.3)

ADD A

ADD A

ADD A

ADD A

ADD A

ADD A

ADD A

ADD A

NOTES:  
1. BREAKER STATUS DISPLAY ON SDG HMI SCREEN

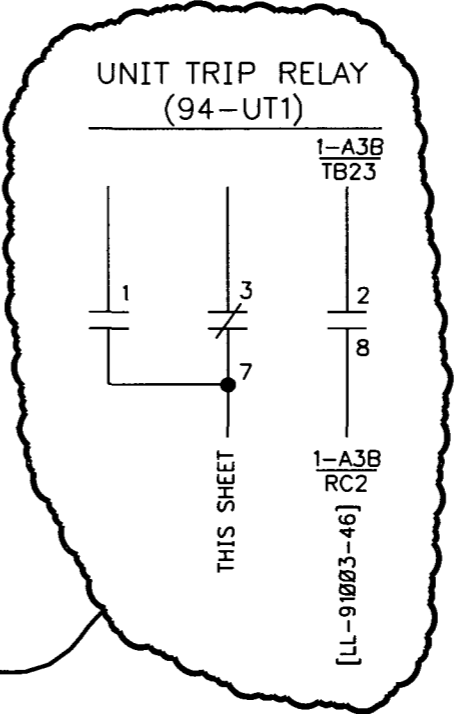
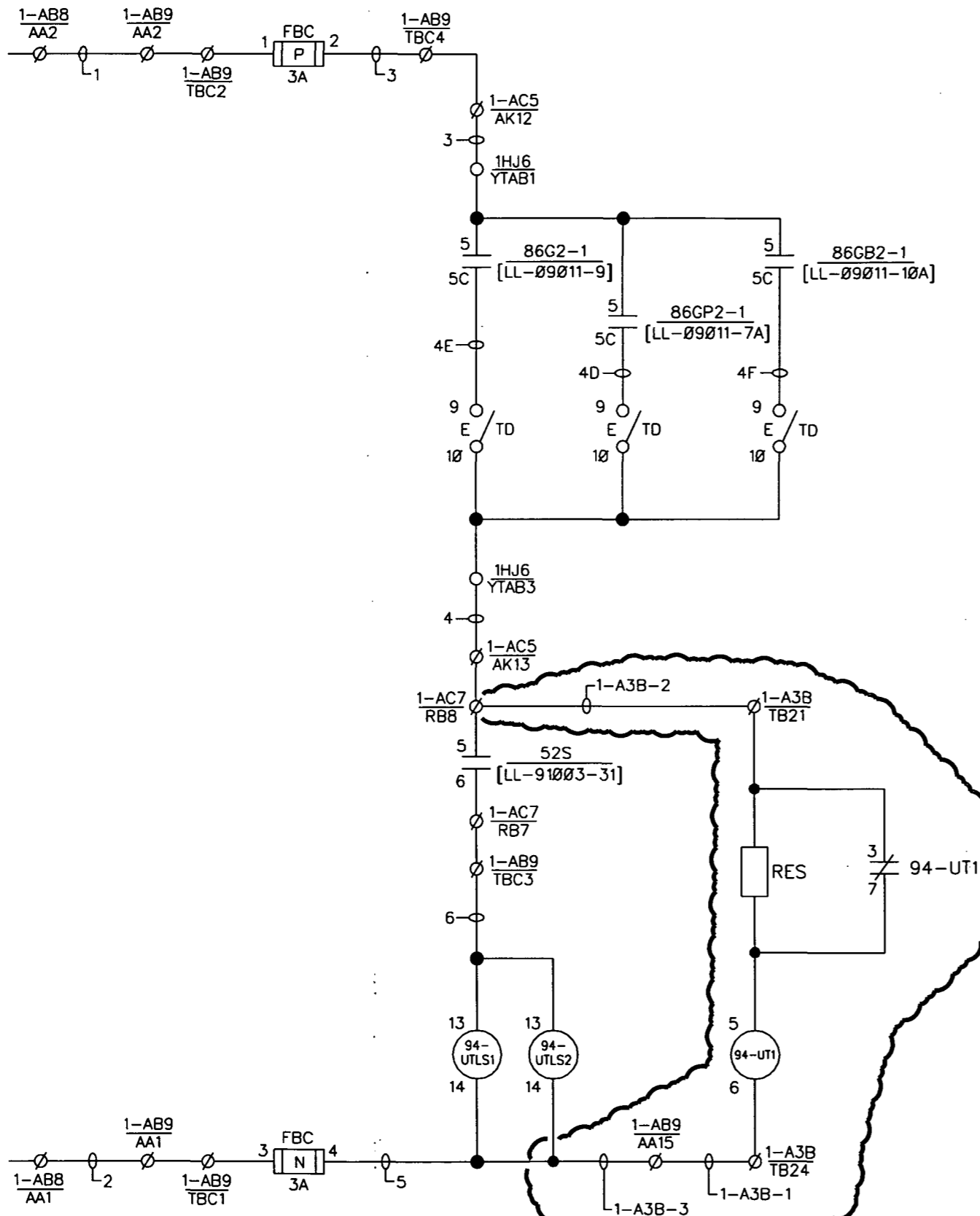
⊗ - INDICATES TERMINAL AT SDG ENGINE CONTROL PANEL

REV	DATE	DESCRIPTION	OWN	CHK	APPR'D
A	10/22/12	EC 79694	MSS		

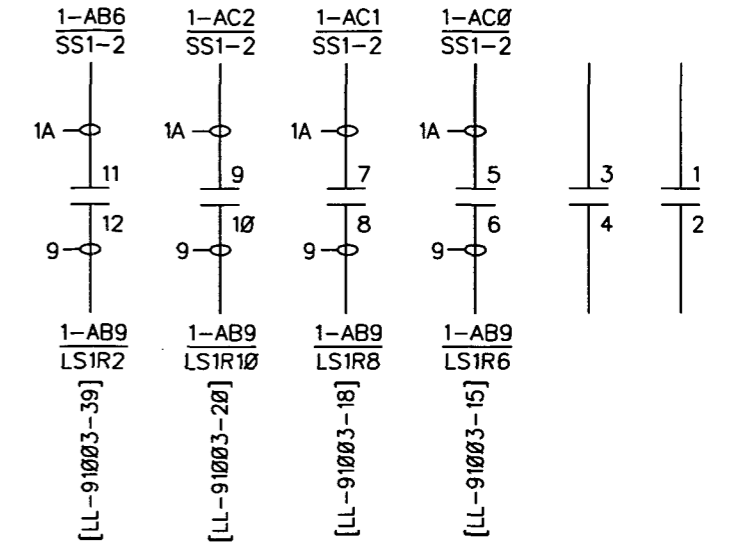


PLANT:	BRUNSWICK NUCLEAR PLANT - UNIT 2	SCALE:	N/A
TITLE:	4160 VOLT SWITCHGEAR "1C" COMPARTMENT "1-A3B" SUPP DIESEL GEN INCOMING LINE CONTROL WIRING DIAGRAM		
PLANT DWG NO.:	LL-91003	SH.:	46
SK NO.:	SK-79694-Z-7422	REV.:	0

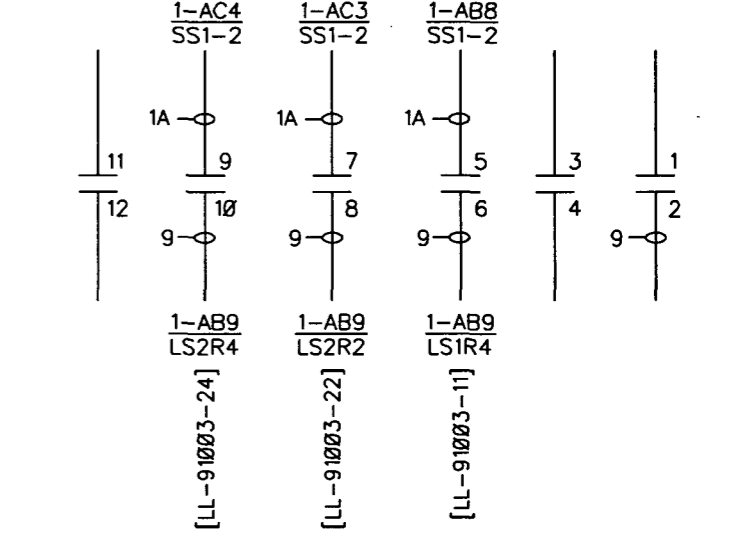
AT SWITCHGEAR  
[LL-91003-37]



UNIT TRIP/ LOAD SHED RELAY (94-UTLS1)



UNIT TRIP/LOAD SHED RELAY (94-UTLS2)



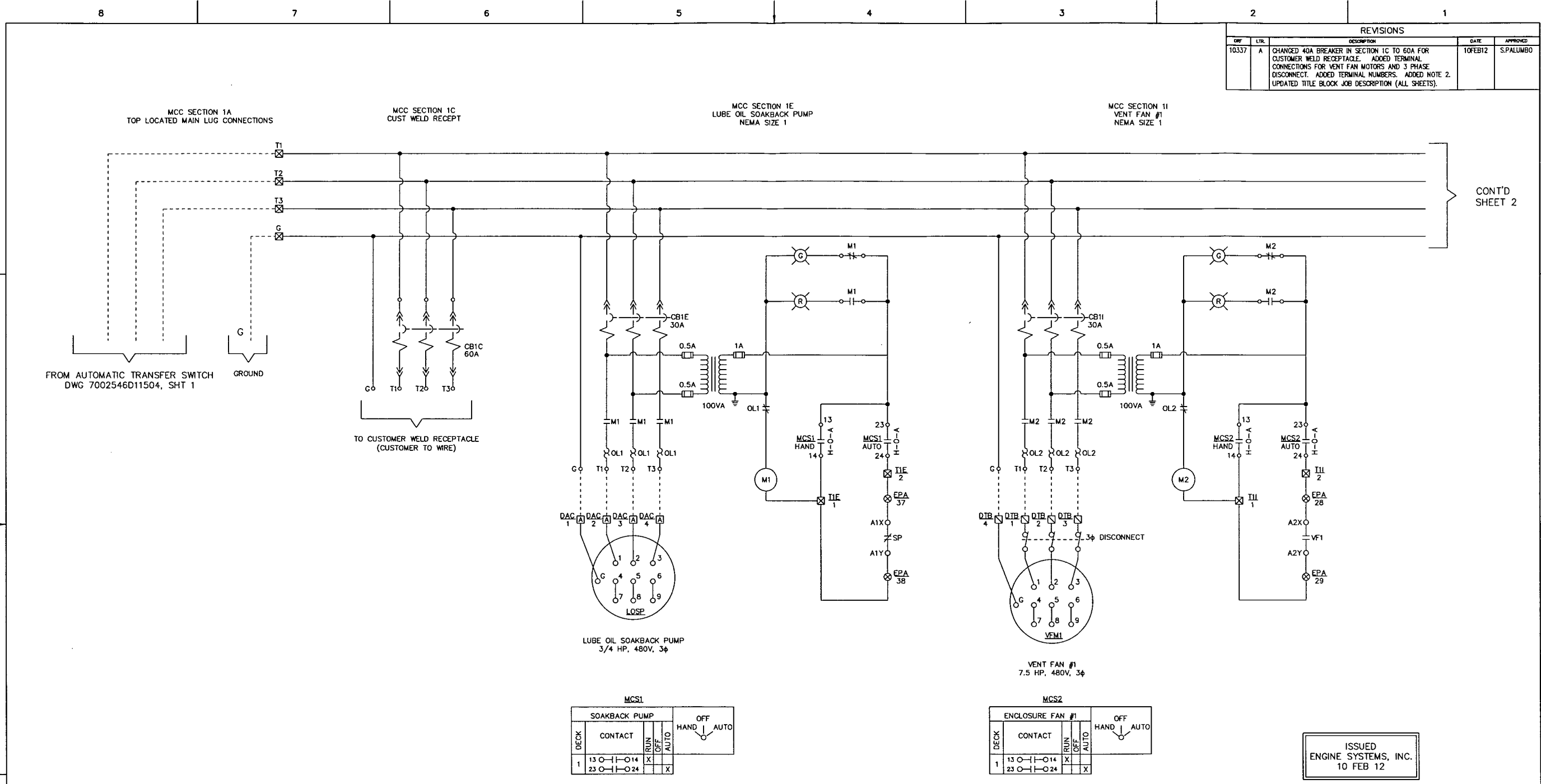
1	REVISED PER EC 84375
Ø	FIRST ISSUE PER EC 45936
REV	DESCRIPTION
<b>PROGRESS ENERGY</b>	
PLANT:	BRUNSWICK NUCLEAR PLANT-UNIT 1
SCALE:	N/A
TITLE:	4160V SWITCHGEAR 1C COMPARTMENT "1-AB9" UNIT TRIP/LOAD SHED CIRCUITRY CONTROL WIRING DIAGRAM
PLANT DWG NO.:	LL-91003
SH.:	45







REVISIONS				
REV	LTR	DESCRIPTION	DATE	APPROVED
10337	A	CHANGED 40A BREAKER IN SECTION 1C TO 60A FOR CUSTOMER WELD RECEPTACLE. ADDED TERMINAL CONNECTIONS FOR VENT FAN MOTORS AND 3 PHASE DISCONNECT. ADDED TERMINAL NUMBERS. ADDED NOTE 2. UPDATED TITLE BLOCK JOB DESCRIPTION (ALL SHEETS).	10FEB12	S.PALUMBO



CONT'D SHEET 2

MCS1

SOAKBACK PUMP				OFF AUTO	
DECK	CONTACT	RUN	OFF	AUTO	
1	13 O-14	X			
	23 O-24		X	X	

MCS2

ENCLOSURE FAN #1				OFF AUTO	
DECK	CONTACT	RUN	OFF	AUTO	
1	13 O-14	X			
	23 O-24		X	X	

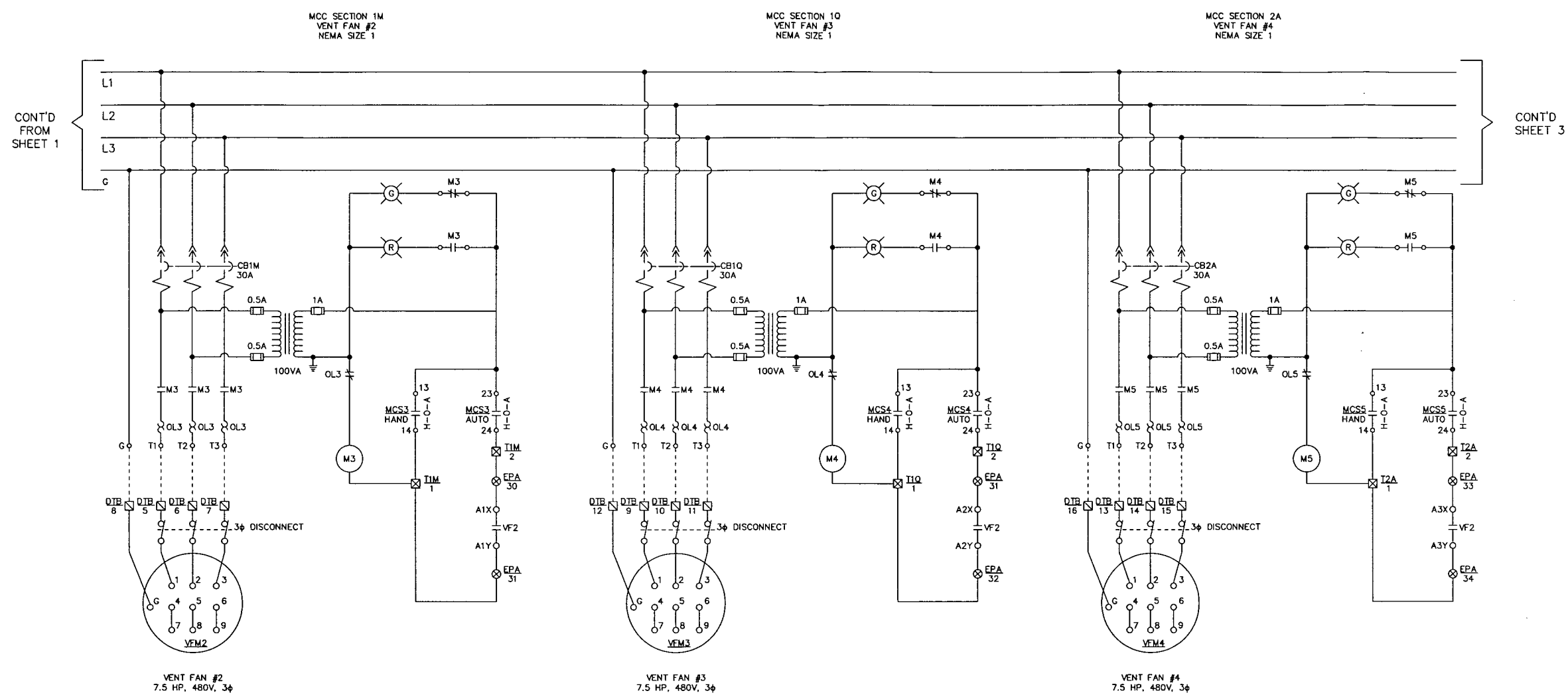
ISSUED  
ENGINE SYSTEMS, INC.  
10 FEB 12

- NOTES
- INDICATES CUSTOMER WIRING
  - SEE ESI DWG 7002546D02502 FOR IDENTIFICATION OF SYMBOLS AND DEVICES

ITEM NO.	QTY	DESCRIPTION	CODE	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO. 7002546		ENGINE SYSTEMS, Inc.	
TOLERANCES ON FRACTIONS		PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEN PO# 580008		ROCKY MOUNT, NORTH CAROLINA 27804	
DECIMALS		DRAWN BY S.PALUMBO		DATE 12 JAN 12	
ANGLES		CHECKED BY ABERNATHY		DATE 12 JAN 12	
MATERIAL		DRAFTSMAN S.PALUMBO		DATE 09 JAN 12	
TREATMENT		DESIGN ACTIVITY APPROVAL		TITLE MCC SCHEMATIC	
FINISH		FILENAME 7002546D11503		REV. A	
SCALE NONE		SIZE D		CODE IDENT. NO. 16505	
WT. -		DRAWING NO. 7002546D11503		SHEET 1 OF 5	

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REVISIONS				
REV	LTG.	DESCRIPTION	DATE	APPROVED
10337	A	ADDED TERMINAL CONNECTIONS FOR VENT FAN MOTORS AND 3 PHASE DISCONNECT. ADDED TERMINAL NUMBERS. ADDED NOTE 2.	10FEB12	S.PALUMBO



MCS3

ENCLOSURE FAN #2		OFF		HAND		AUTO	
DECK	CONTACT	RUN	OFF	RUN	OFF	RUN	OFF
1	13 O     O 14	X		X		X	
	23 O     O 24						X

MCS4

ENCLOSURE FAN #3		OFF		HAND		AUTO	
DECK	CONTACT	RUN	OFF	RUN	OFF	RUN	OFF
1	13 O     O 14	X		X		X	
	23 O     O 24						X

MCS5

ENCLOSURE FAN #4		OFF		HAND		AUTO	
DECK	CONTACT	RUN	OFF	RUN	OFF	RUN	OFF
1	13 O     O 14	X		X		X	
	23 O     O 24						X

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ENGINE SYSTEMS, INC.  
10 FEB 12

- NOTES
- INDICATES CUSTOMER WIRING
  - SEE ESI DWG 7002546D02502 FOR IDENTIFICATION OF SYMBOLS AND DEVICES

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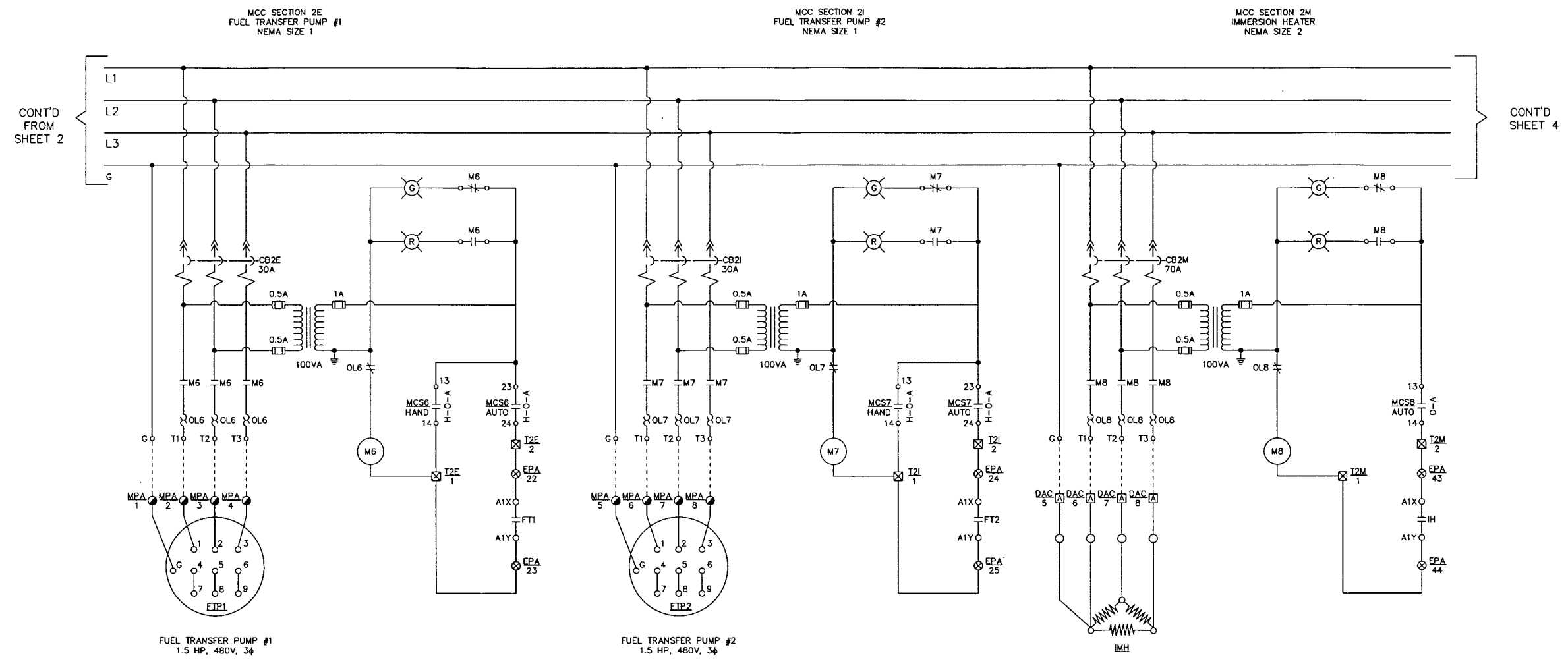
ITEM NO.	QTY.	DESCRIPTION	CODE	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES					
CONTRACT NO. 7002546 PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEM PO# 580008					
TOLERANCES ON FRACTIONS		DECIMALS		ANGLES	
+		-		±	
MATERIAL		QTY.		DATE	
-		10317		12 JAN 12	
TREATMENT		CHECKER		DATE	
-		ABERNATHY		12 JAN 12	
FINISH		DRAFTSMAN		DATE	
-		S.PALUMBO		09 JAN 12	
DESIGN ACTIVITY APPROVAL					
QL IV					
SIZE		CODE BOOK, NO.		DRAWING NO.	
D		16505		7002546D11503	
SCALE NONE		WT.		SHEET 2 OF 5	



MCC SCHEMATIC

REV. A

REVISIONS				
REV.	LTR.	DESCRIPTION	DATE	APPROVED
10337	A	ADDED TERMINAL CONNECTIONS FOR MOTORS. ADDED TERMINAL NUMBERS. ADDED NOTE 2. CHANGED IMMERSION HEATER SWITCH TO OFF-AUTO.	10FEB12	S.PALUMBO



CONT'D FROM SHEET 2

CONT'D SHEET 4

FUEL TRANSFER PUMP #1  
1.5 HP, 480V, 3φ

FUEL TRANSFER PUMP #2  
1.5 HP, 480V, 3φ

IMMERSION HEATER  
15 KW, 480V, 3φ

MCS6

FUEL TRANSFER #1				OFF	HAND	AUTO
DECK	CONTACT	RUN	OFF	AUTO		
1	13 O— —O14	X				
	23 O— —O24		X			

MCS7

FUEL TRANSFER #2				OFF	HAND	AUTO
DECK	CONTACT	RUN	OFF	AUTO		
1	13 O— —O14	X				
	23 O— —O24		X			

MCS8

IMMERSION HEATER				OFF	AUTO
DECK	CONTACT	OFF	AUTO		
1	13 O— —O14	X			

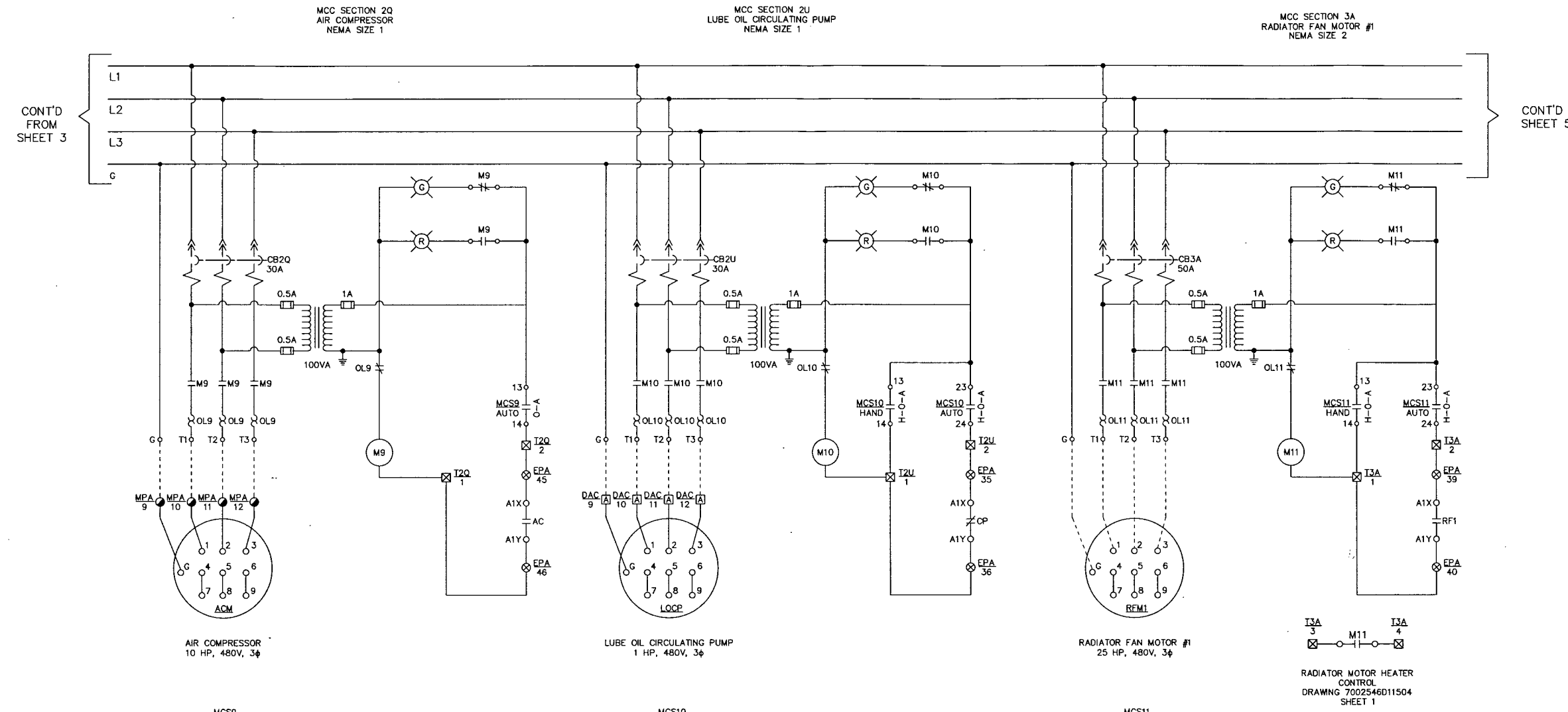
ISSUED  
ENGINE SYSTEMS, INC.  
10 FEB 12

- NOTES
- INDICATES CUSTOMER WIRING
  - SEE ESI DWG 7002546D02502 FOR IDENTIFICATION OF SYMBOLS AND DEVICES

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ITEM NO.	QTY.	DESCRIPTION	CODE IDENT.	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO. 7002546 PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEN PO# 580008		<b>ENGINE SYSTEMS, Inc.</b> ROCKY MOUNT, NORTH CAROLINA 27804	
TOLERANCES ON FRACTIONS		DWF No. 10317 ENGINEER S.PALUMBO 12 JAN 12 CHECKER ABERNATHY 12 JAN 12 DRAFTSMAN S.PALUMBO 09 JAN 12			
MATERIAL		DESIGN ACTIVITY APPROVAL QL IV		MCC SCHEMATIC	
TREATMENT		FILENAME 7002546D11503			
FINISH		SIZE D		CODE IDENT. NO. 16505	DRAWING NO. 7002546D11503
		SCALE NONE		REV. A	SHEET 3 OF 5

REVISIONS				
NO.	DATE	DESCRIPTION	BY	APPROVED
10337	A	ADDED TERMINAL CONNECTIONS FOR MOTORS. ADDED TERMINAL NUMBERS. ADDED NOTE 2. CHANGED AIR COMPRESSOR SWITCH TO OFF-AUTO.		S.PALUMBO



CONT'D FROM SHEET 3

CONT'D SHEET 5

AIR COMPRESSOR  
10 HP, 480V, 3φ

LUBE OIL CIRCULATING PUMP  
1 HP, 480V, 3φ

RADIATOR FAN MOTOR #1  
25 HP, 480V, 3φ

RADIATOR MOTOR HEATER CONTROL  
DRAWING 7002546D11504  
SHEET 1

MCS9

AIR COMPRESSOR		OFF	AUTO
DECK	CONTACT		
1	13-O-14	X	X

MCS10

LUBE OIL CIRC PUMP		HAND	OFF	AUTO
DECK	CONTACT	RUN	OFF	AUTO
1	13-O-14	X		X
	23-O-24			X

MCS11

RAD FAN MOTOR #1		HAND	OFF	AUTO
DECK	CONTACT	RUN	OFF	AUTO
1	13-O-14	X		X
	23-O-24			X

ISSUED  
ENGINE SYSTEMS, INC.  
10 FEB 12

- NOTES
- INDICATES CUSTOMER WIRING
  - SEE ESI DWG 7002546D02502 FOR IDENTIFICATION OF SYMBOLS AND DEVICES

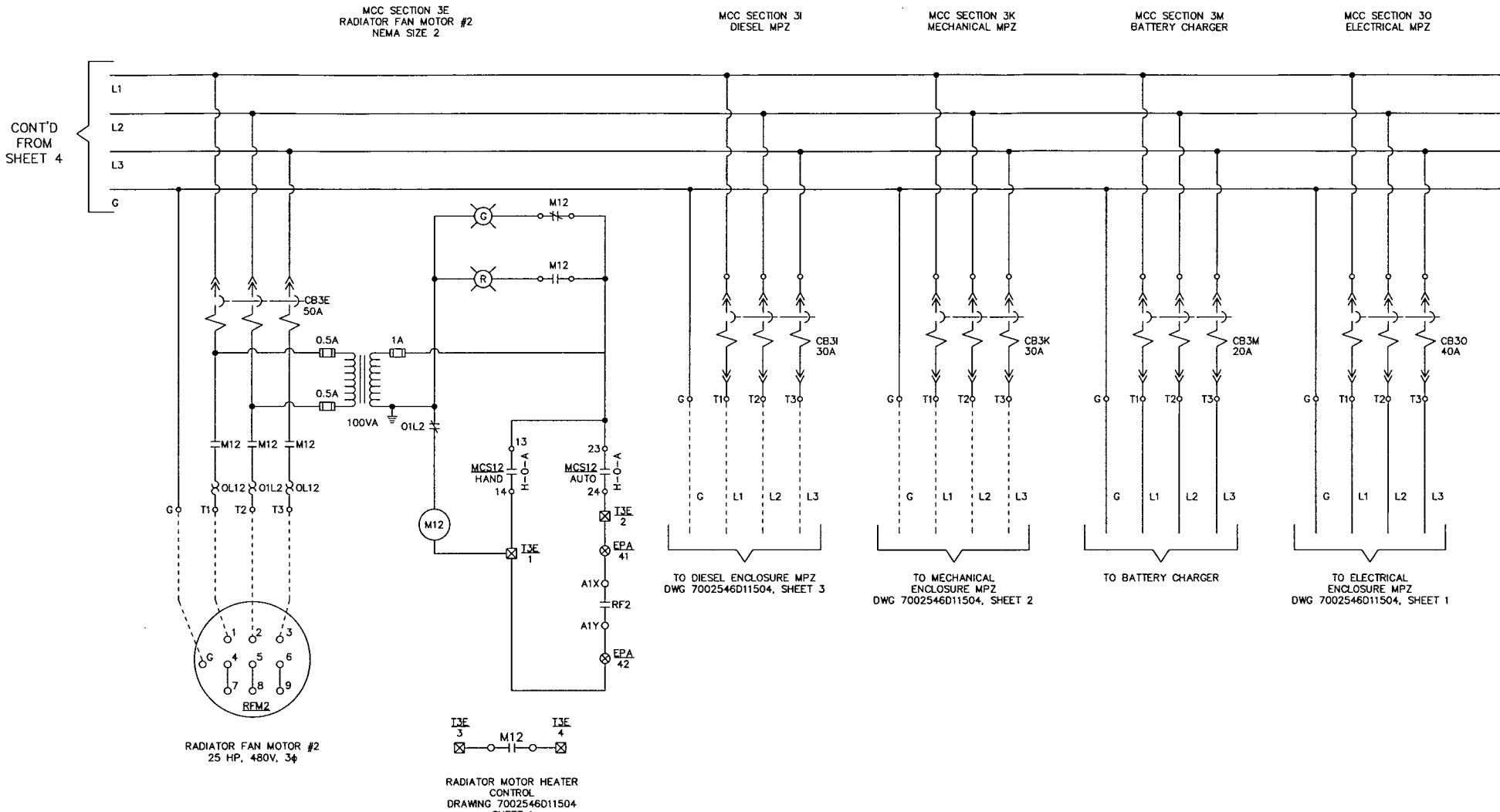
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ITEM NO.	QTY	DESCRIPTION	UNIT
LIST OF MATERIAL OR PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO. 7002546 PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEN PC# 580008	
TOLERANCES ON FRACTIONS	DECIMALS	ANGLES	DATE
±	±	±	10317 12 JAN 12
MATERIAL	ENGINEER	CHECKER	DATE
	S.PALUMBO	ABERNATHY	12 JAN 12
TREATMENT	DRAFTSMAN	DATE	
	S.PALUMBO	09 JAN 12	
FRESH	DESIGN ACTIVITY APPROVAL	FILENAME	REV.
	QL IV	7002546D11503	A
SIZE D		CODE IDENT. NO. 16505	DRAWING NO. 7002546D11503
SCALE NONE		WT.	SHEET 4 OF 5



MCC SCHEMATIC

REVISIONS				
DNF	LTR.	DESCRIPTION	DATE	APPROVED
10337	A	ADDED TERMINAL NUMBERS, ADDED GROUND CONNECTIONS FOR BATTERY CHARGER AND MPZ'S. ADDED NOTE 2.	10FEB12	S.PALUMBO



MCS12

DECK	CONTACT	RUN	OFF	AUTO
1	13 O - I - O 14	X		
	23 O - I - O 24			X

RADIATOR MOTOR HEATER CONTROL  
DRAWING 7002546D11504  
SHEET 1

- NOTES
- INDICATES CUSTOMER WIRING
  - SEE ESI DWG 7002546D02502 FOR IDENTIFICATION OF SYMBOLS AND DEVICES

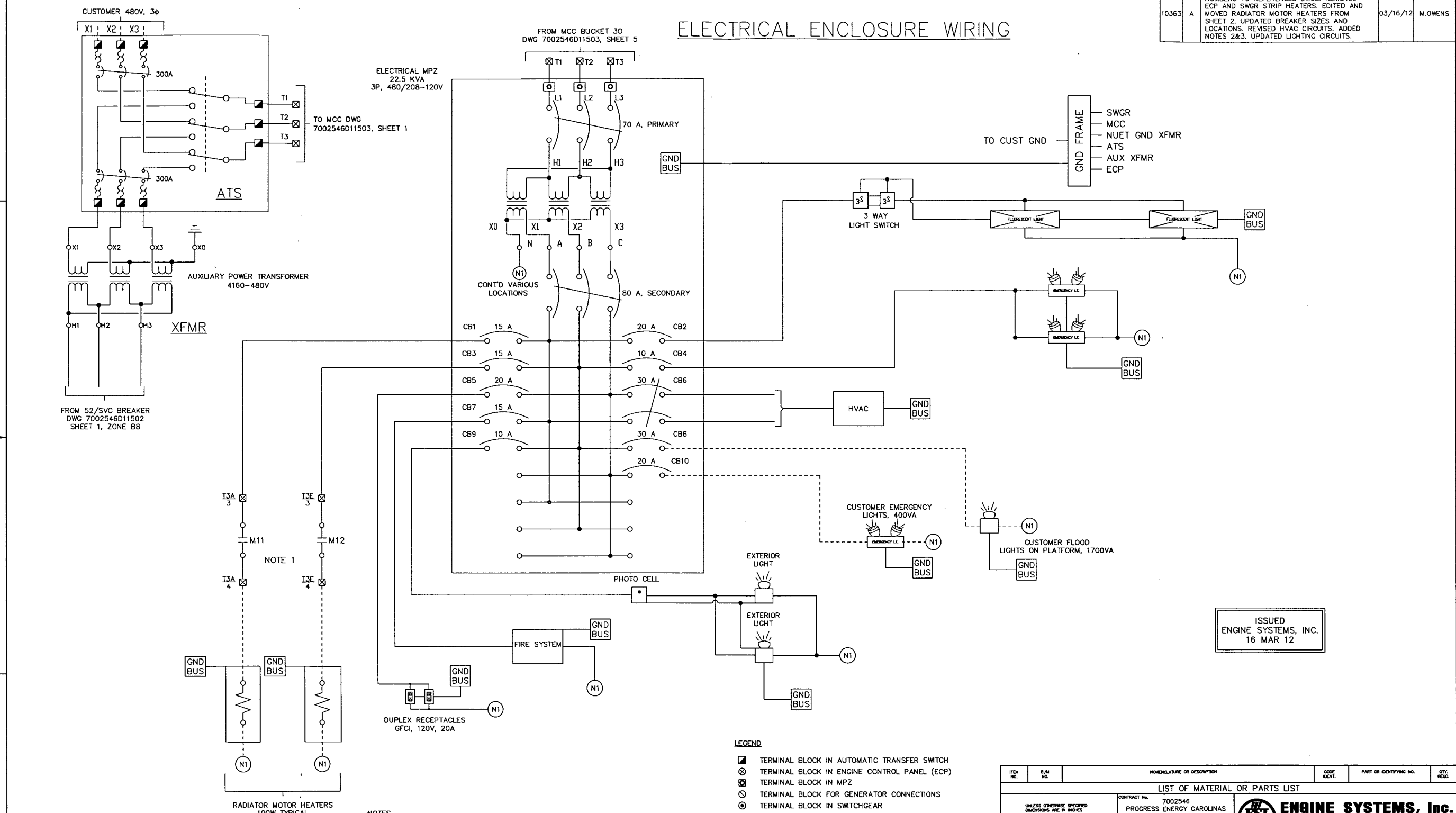
ISSUED  
ENGINE SYSTEMS, INC.  
10 FEB 12

ITEM NO.	QTY	DESCRIPTION	CODE	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO. 7002546 PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEN PO# 580008		<b>ENGINE SYSTEMS, Inc.</b> ROCKY MOUNT, NORTH CAROLINA 27804	
TOLERANCES ON FRACTIONS	DECIMALS	ANGLES	DNF No. 10317	DATE 12 JAN 12	ENGINEER S.PALUMBO
MATERIAL			CHECKER ABERNATHY	DATE 12 JAN 12	DRAFTSMAN S.PALUMBO
TREATMENT			DESIGN ACTIVITY APPROVAL	FILENAME 7002546D11503	REV. A
FRESH			SCALE NONE	WT. -	SHEET 5 OF 5

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REVISIONS				
REV	REV	DESCRIPTION	DATE	APPROVED
10363	A	UPDATED TERMINAL NUMBERS, ADDED ZONE NUMBERS TO REFERENCED DWGS, REMOVED ECP AND SWGR STRIP HEATERS, EDITED AND MOVED RADIATOR MOTOR HEATERS FROM SHEET 2, UPDATED BREAKER SIZES AND LOCATIONS, REVISED HVAC CIRCUITS, ADDED NOTES 2&3, UPDATED LIGHTING CIRCUITS.	03/16/12	M. OWENS

# ELECTRICAL ENCLOSURE WIRING



- NOTES**
- REF DWG 7002546D1103 BUCKETS 3A & 3E FOR M11 AND M12. THESE ARE AUXILIARY CONTACTS FROM MCC.
  - ELECTRICAL ENCLOSURE MPZ CONTAINS 13 OPEN BREAKER SLOTS (NOT SHOWN).
  - INDICATES INTERCONNECT WIRING.

- LEGEND**
- ☑ TERMINAL BLOCK IN AUTOMATIC TRANSFER SWITCH
  - ⊗ TERMINAL BLOCK IN ENGINE CONTROL PANEL (ECP)
  - ⊙ TERMINAL BLOCK IN MPZ
  - ⊕ TERMINAL BLOCK FOR GENERATOR CONNECTIONS
  - ⊖ TERMINAL BLOCK IN SWITCHGEAR
  - ⊗ TERMINAL BLOCK IN MCC
  - ⊖ TERMINAL BLOCK IN LOCAL CONTROL PANEL (LCP)

ISSUED  
ENGINE SYSTEMS, INC.  
16 MAR 12

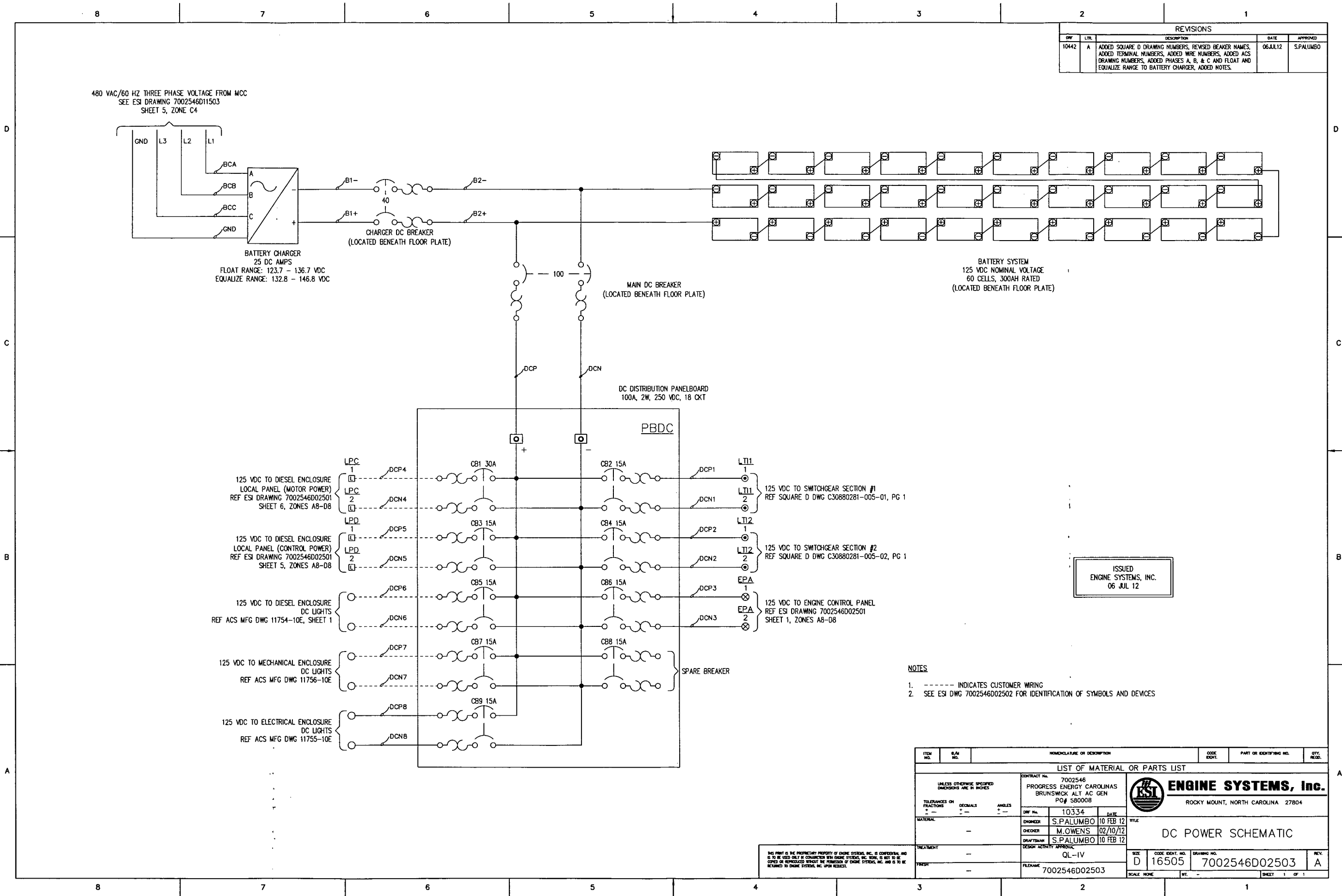
ITEM NO.	QTY	DESCRIPTION	CODE	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO. 7002546 PROGRESS ENERGY CAROLINAS BRUNSWICK NUCLEAR SBO PO# 580008			
TOLERANCES ON FRACTIONS	DECIMALS	ANGLES	ENGINEER: S.PALUMBO 12 JAN 12 CHECKER: ABERNATHY 12 JAN 12 DRAFTSMAN: S.PALUMBO 09 JAN 12		
MATERIAL			DESIGN ACTIVITY APPROVAL QL IV		
TREATMENT			FILENAME: 7002546D11504		
FINISH			SIZE: D	CODE IDENT. NO.: 16505	DRAWING NO.: 7002546D11504
			SCALE: NONE	WT.	SHEET 1 OF 3

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## ENCLOSURE SCHEMATIC





REVISIONS				
DRP	LTR	DESCRIPTION	DATE	APPROVED
10442	A	ADDED SQUARE D DRAWING NUMBERS, REVISED BREAKER NAMES, ADDED TERMINAL NUMBERS, ADDED WIRE NUMBERS, ADDED ACS DRAWING NUMBERS, ADDED PHASES A, B, & C AND FLOAT AND EQUALIZE RANGE TO BATTERY CHARGER, ADDED NOTES.	06.JUL.12	S.PALUMBO

ISSUED  
ENGINE SYSTEMS, INC.  
06 JUL 12

- NOTES**
- INDICATES CUSTOMER WIRING
  - SEE ESI DWG 7002546D02502 FOR IDENTIFICATION OF SYMBOLS AND DEVICES

ITEM NO.	QTY	DESCRIPTION	CODE	PART OR IDENTIFYING NO.	QTY. REQD.
LIST OF MATERIAL OR PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT No. 7002546 PROGRESS ENERGY CAROLINAS BRUNSWICK ALT AC GEN PO# 580008			
TOLERANCES ON FRACTIONS		ENGINE SYSTEMS, Inc. ROCKY MOUNT, NORTH CAROLINA 27804			
-		DRP No. 10334 DATE 10 FEB 12			
-		ENGINEER S.PALUMBO 10 FEB 12			
-		CHECKER M.OWENS 02/10/12			
-		DRAFTSMAN S.PALUMBO 10 FEB 12			
-		DESIGN ACTIVITY APPROVAL			
-		TREATMENT QL-IV			
-		SIZE D CODE IDENT. NO. 16505 DRAWING NO. 7002546D02503			
-		FILENAME 7002546D02503			
-		SCALE NONE WT. - SHEET 1 OF 1			

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