

NRR-DMPSPeM Resource

From: Wasik, Christopher J <Christopher.Wasik@duke-energy.com>
Sent: Wednesday, February 27, 2019 10:42 AM
To: Klett, Audrey
Subject: [External_Sender] FW: Oconee Letter RA-19-0116, Response to RAI
Attachments: RAI 5 Combined Docs.pdf

The figures/drawings in the EIE file are not quite as clean as I had hoped because some of them had to be printed and scanned at 600 dpi in order to meet EIE submittal standards. Attached is a cleaner copy of those figures/drawings.

Chris

From: Wasik, Christopher J
Sent: Wednesday, February 27, 2019 10:37 AM
To: Klett, Audrey (Audrey.Klett@nrc.gov) <Audrey.Klett@nrc.gov>
Cc: Crowe, Eddy -nrc (eddy.crowe@nrc.gov) <eddy.crowe@nrc.gov>; Zaremba, Arthur H. <Arthur.Zaremba@duke-energy.com>
Subject: Oconee Letter RA-19-0116, Response to RAI

Audrey,

The attached RAI response is associated with Oconee LAR 2017-05 (related to TS 3.8.1) and was electronically submitted a few minutes ago. The submittal was assigned ADAMS accession #ML19058A206. Please contact me if you have any questions.

Chris Wasik

Fleet Nuclear Licensing
864.873.5789

Hearing Identifier: NRR_DMPS
Email Number: 834

Mail Envelope Properties (MWHPR03MB2557EC620EB4A7E830EF9025BB740)

Subject: [External_Sender] FW: Oconee Letter RA-19-0116, Response to RAI
Sent Date: 2/27/2019 10:41:36 AM
Received Date: 2/27/2019 10:43:43 AM
From: Wasik, Christopher J

Created By: Christopher.Wasik@duke-energy.com

Recipients:
"Klett, Audrey" <Audrey.Klett@nrc.gov>
Tracking Status: None

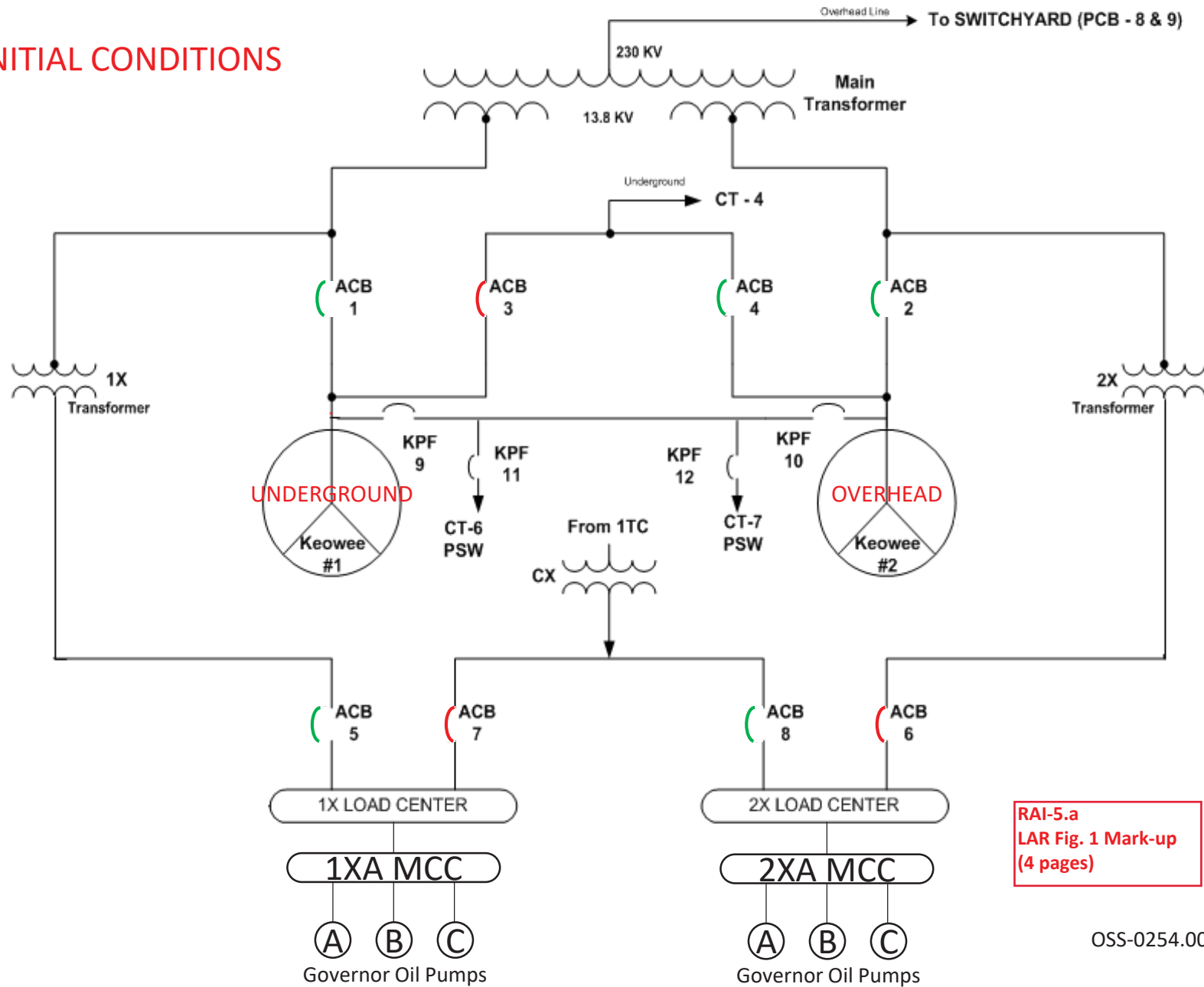
Post Office: MWHPR03MB2557.namprd03.prod.outlook.com

Files	Size	Date & Time
MESSAGE	1010	2/27/2019 10:43:43 AM
RAI 5 Combined Docs.pdf		4730751

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

KEOWEE ELECTRICAL DISTRIBUTION

INITIAL CONDITIONS



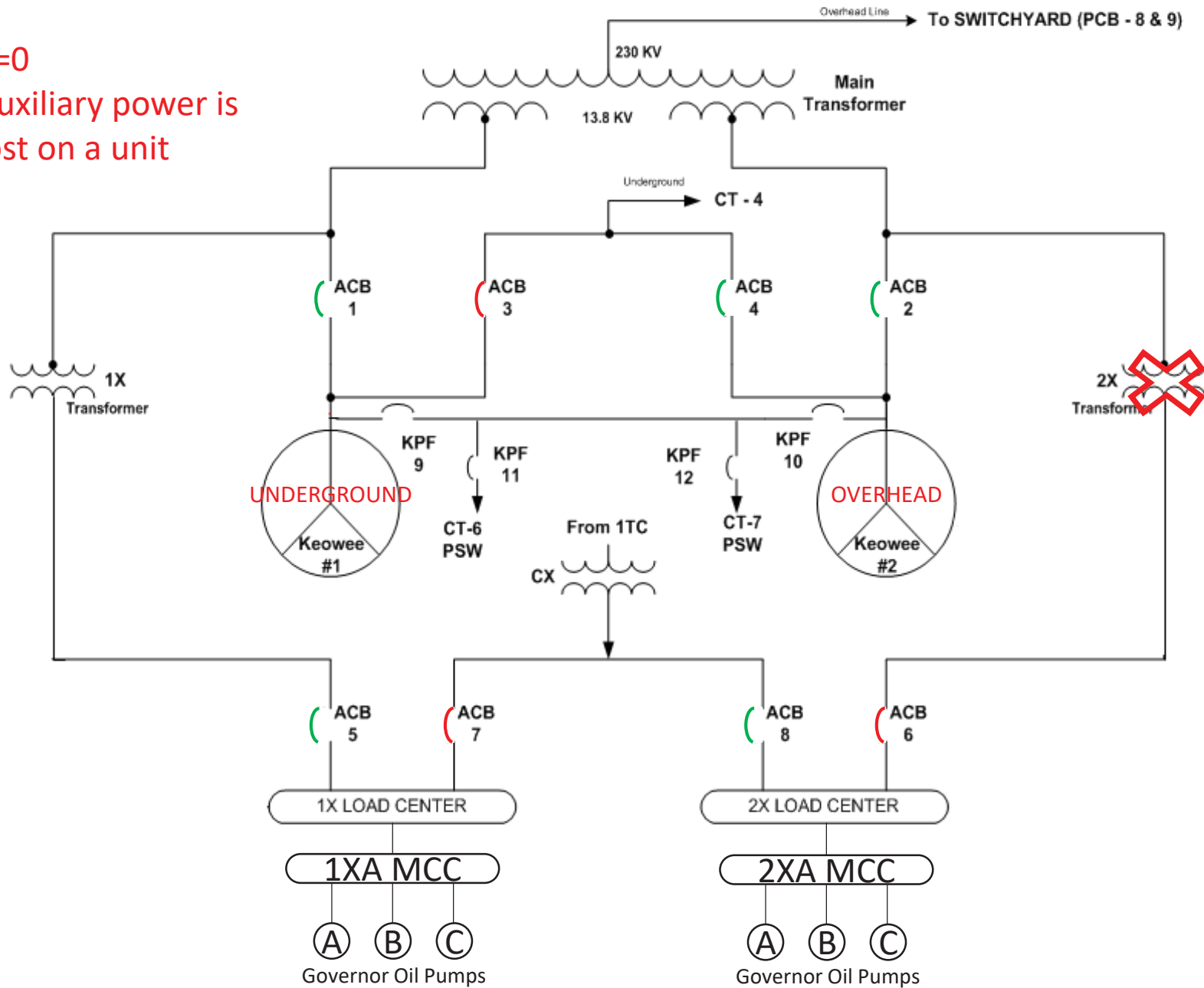
RAI-5.a
LAR Fig. 1 Mark-up
(4 pages)

References:
K-700
K-702
KEE-27-03
KEE-27-03-01
OSS-0254.00-00-2005, p47

KEOWEE ELECTRICAL DISTRIBUTION

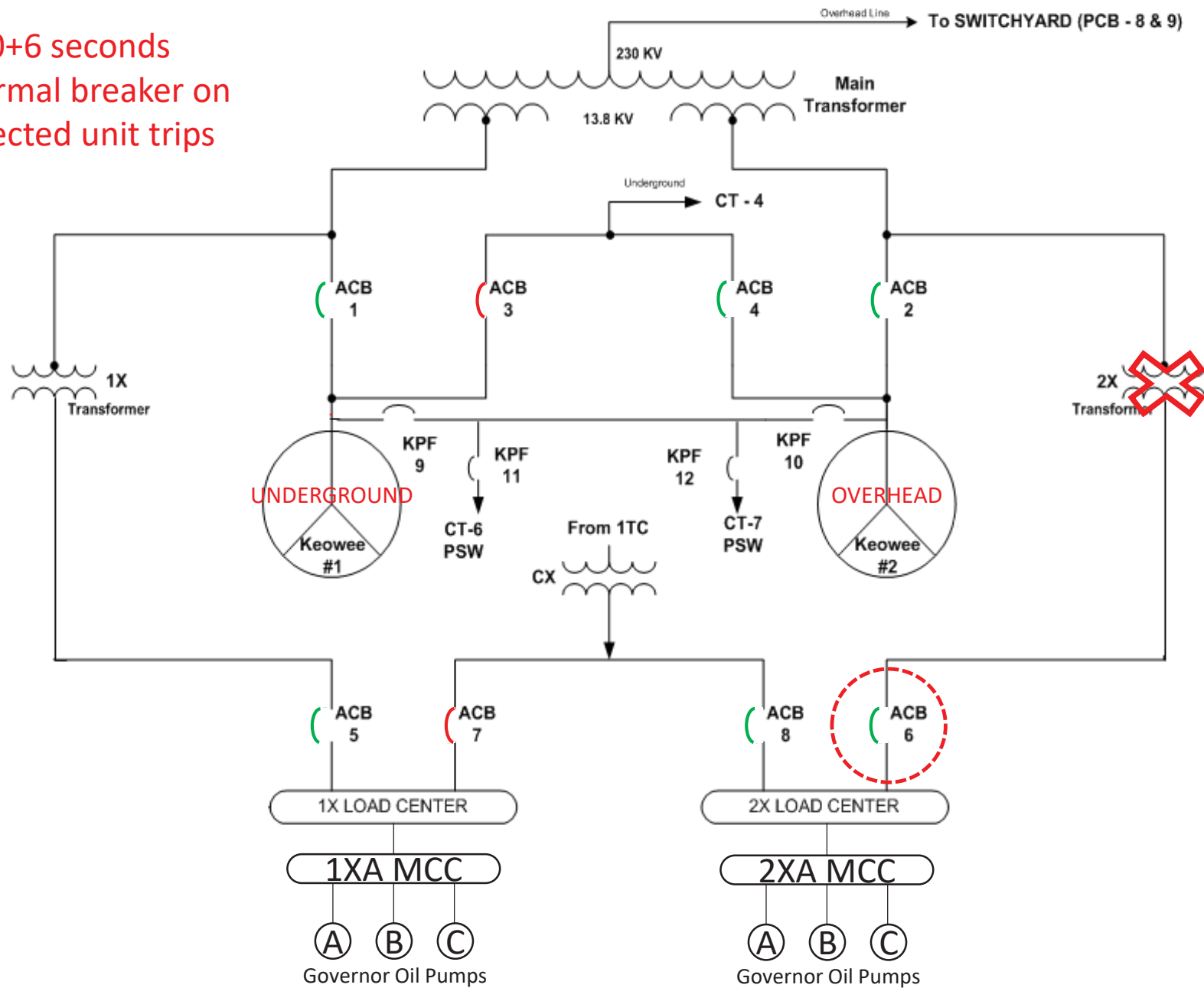
T=0

Auxiliary power is
lost on a unit



KEOWEE ELECTRICAL DISTRIBUTION

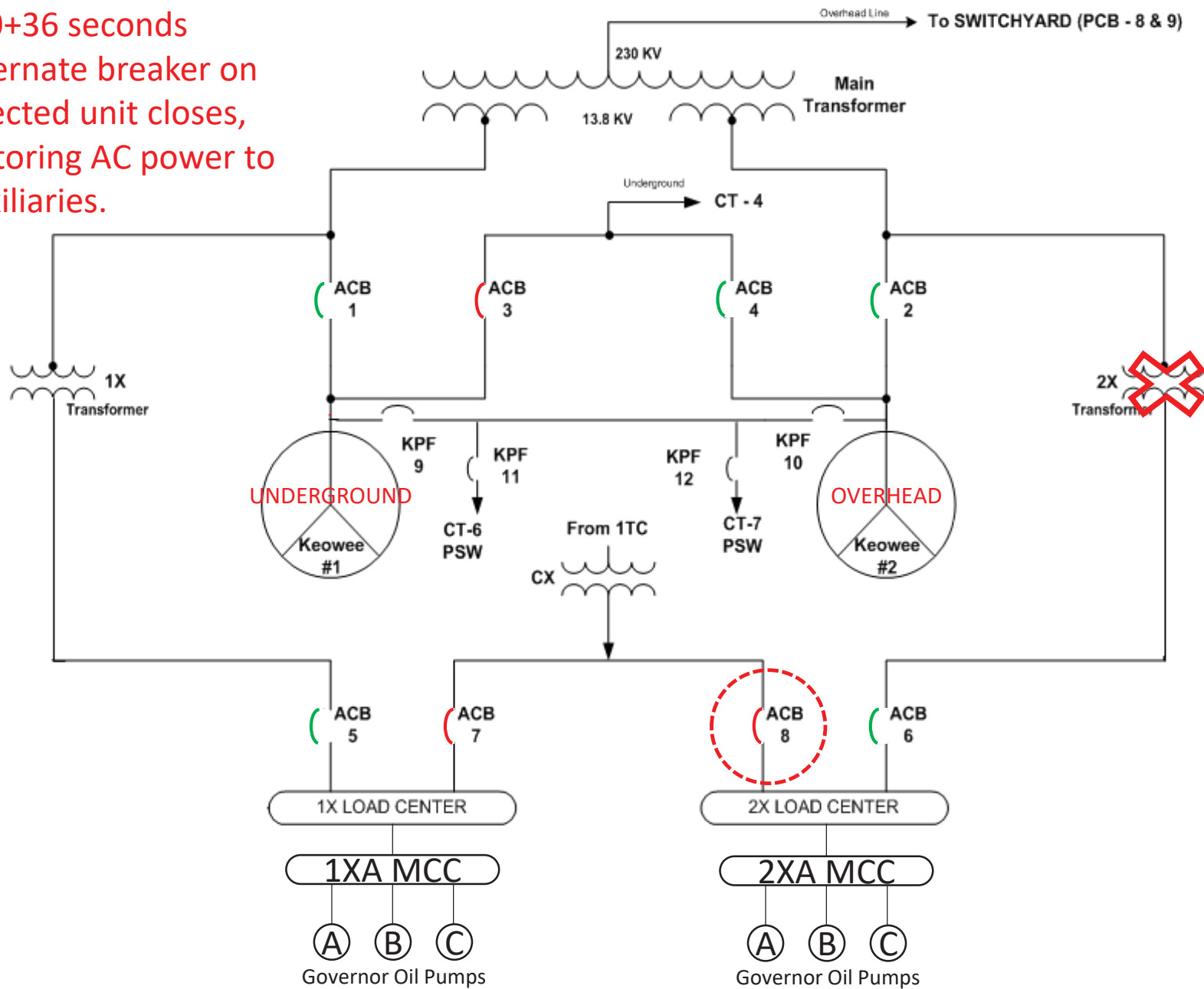
T=0+6 seconds
Normal breaker on
affected unit trips

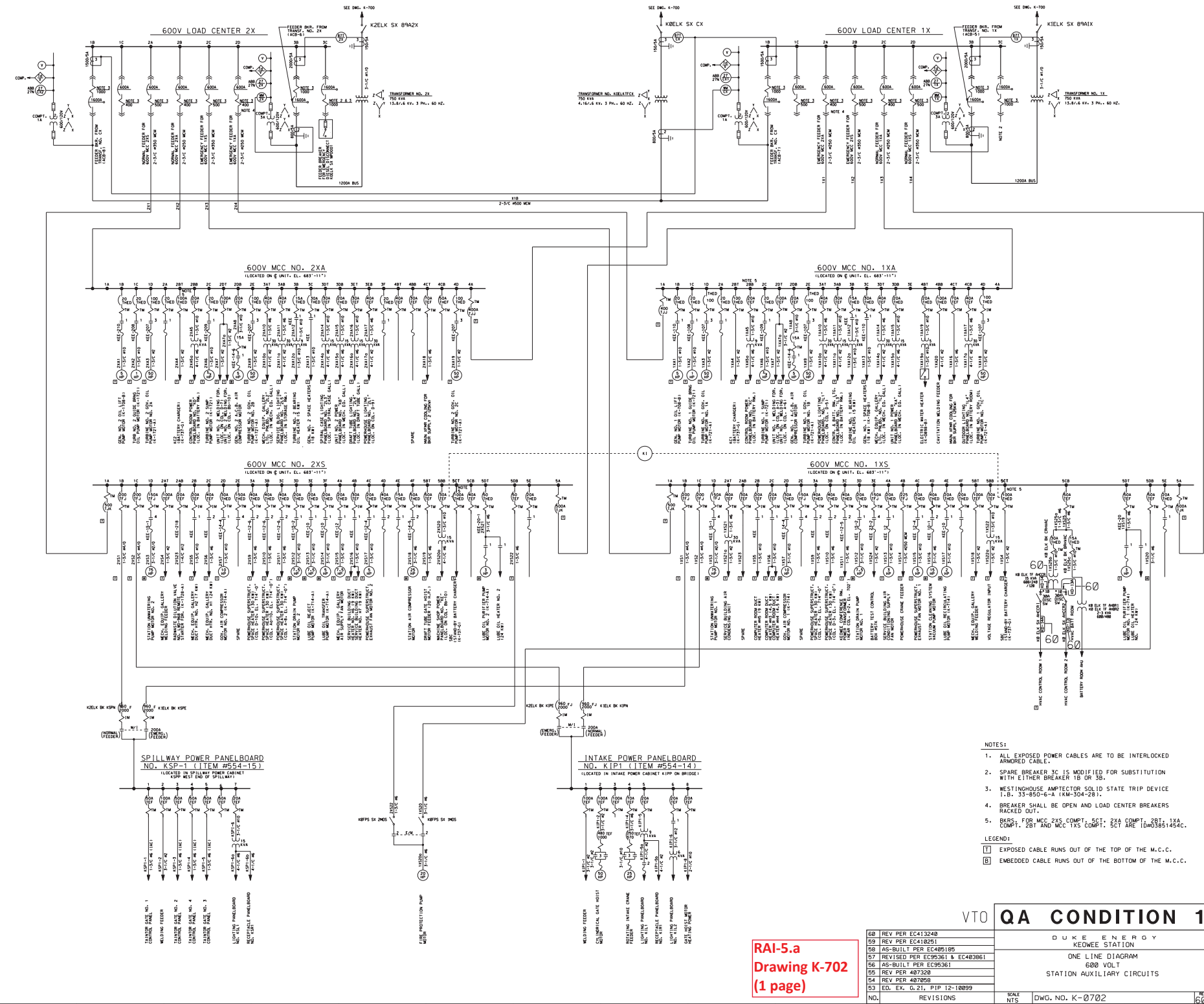


KEOWEE ELECTRICAL DISTRIBUTION

T=0+36 seconds

Alternate breaker on affected unit closes, restoring AC power to auxiliaries.



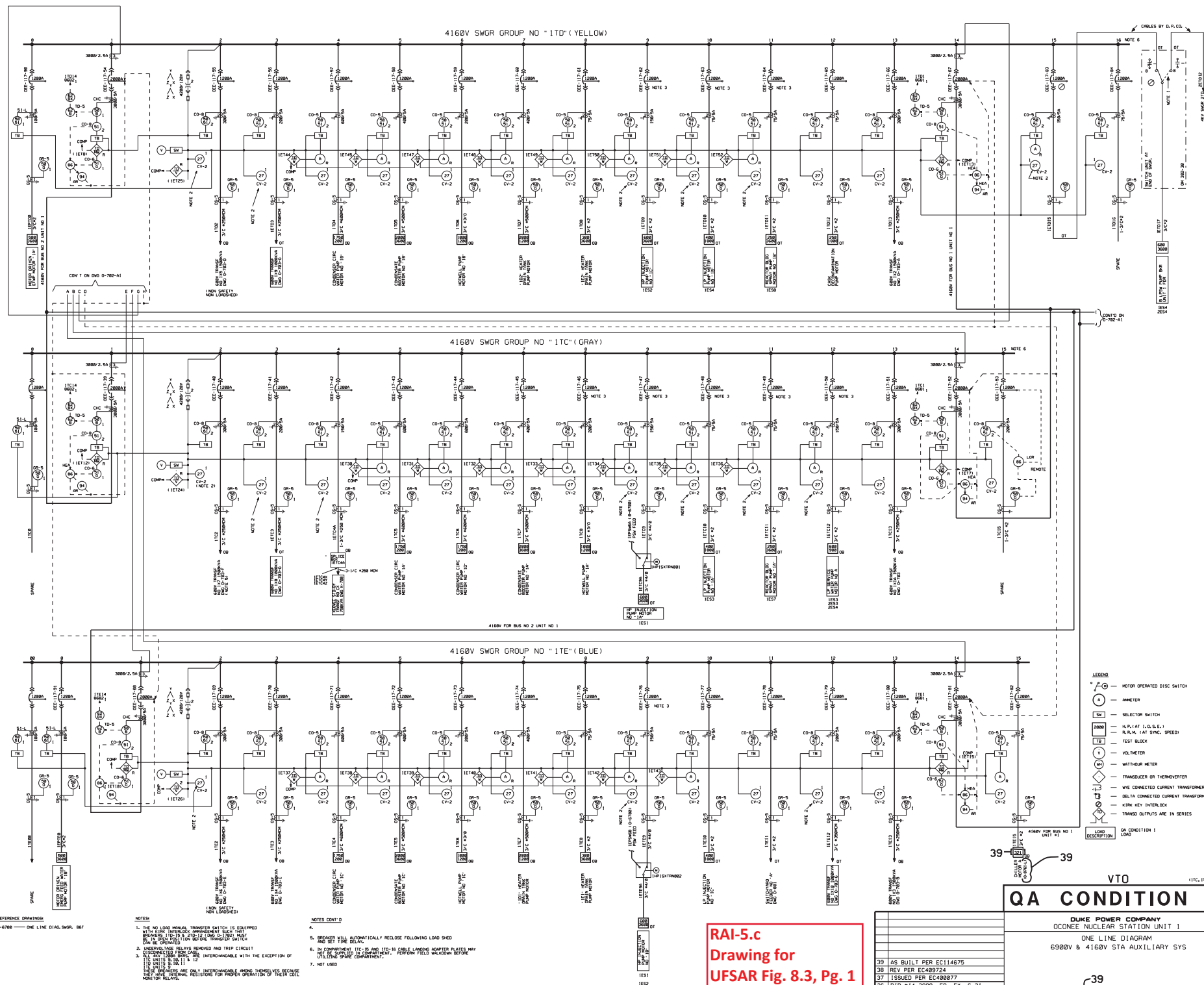


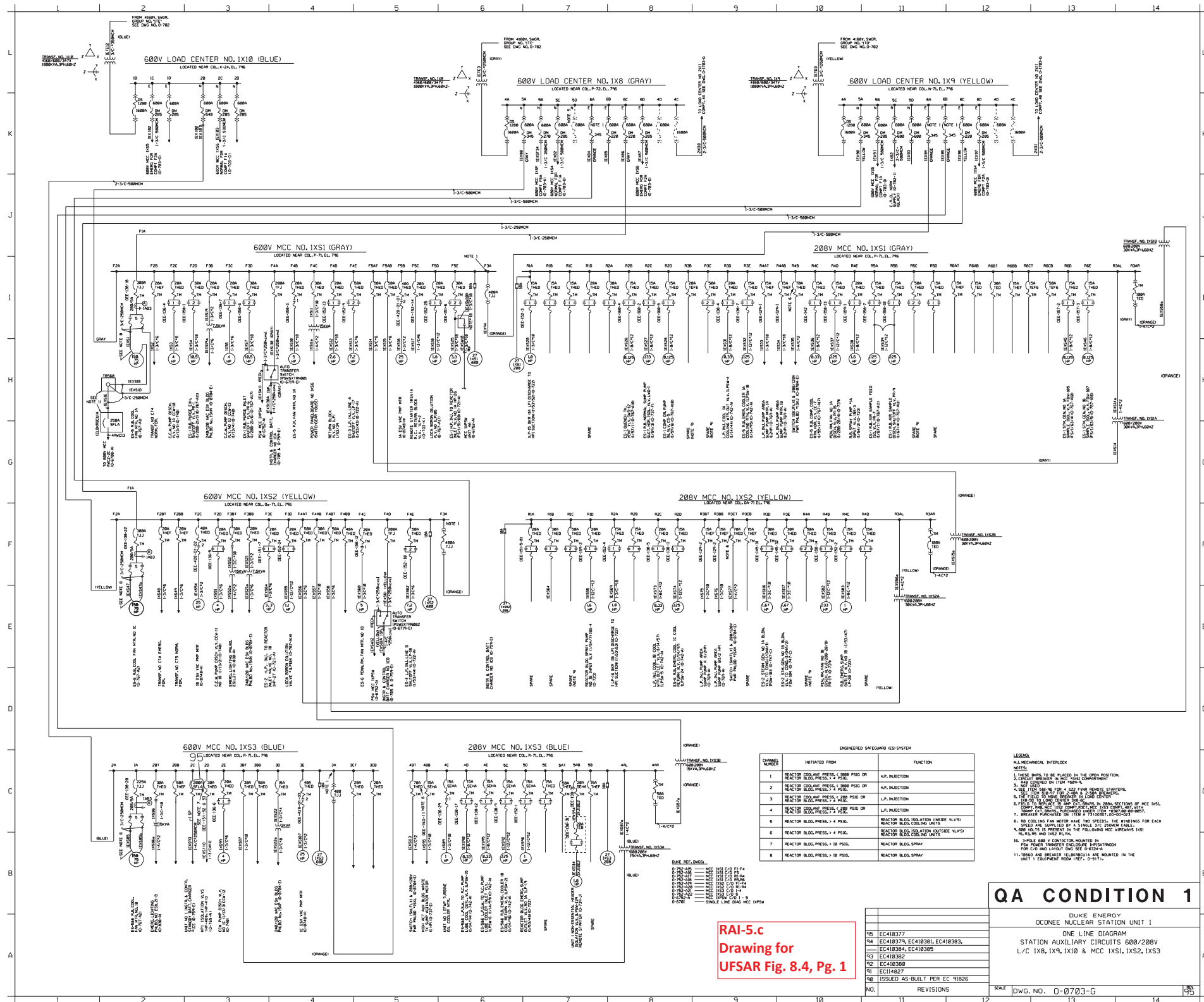
- NOTES:
1. ALL EXPOSED POWER CABLES ARE TO BE INTERLOCKED ARMORED CABLE.
 2. SPARE BREAKER 3C IS MODIFIED FOR SUBSTITUTION WITH EITHER BREAKER 1B OR 3B.
 3. WESTINGHOUSE AMPTECTOR SOLID STATE TRIP DEVICE 1-B, 3-B-850-H-A (KVA-30A-CB1).
 4. BREAKER SHALL BE OPEN AND LOAD CENTER BREAKERS RACKED OUT.
- LEGEND:
- 17 EXPOSED CABLE RUNS OUT OF THE TOP OF THE M.C.C.
 - 18 EMBEDDED CABLE RUNS OUT OF THE BOTTOM OF THE M.C.C.

RAI-5.a
Drawing K-702
(1 page)

68	REV PER EC413248
69	REV PER EC418251
68	AS-BUILT PER EC405105
67	REVISED PER EC95361 & EC403861
66	AS-BUILT PER EC95361
65	REV PER 487328
64	REV PER 487858
53	ED. EX. G. 21, PIP 12-10899
NO.	REVISIONS

VTO		QA CONDITION 1	
DUKE ENERGY		KEOWEE STATION	
ONE LINE DIAGRAM		600 VOLT	
STATION AUXILIARY CIRCUITS		DWG. NO. K-0702	
NO.	NTS	SCALE	60

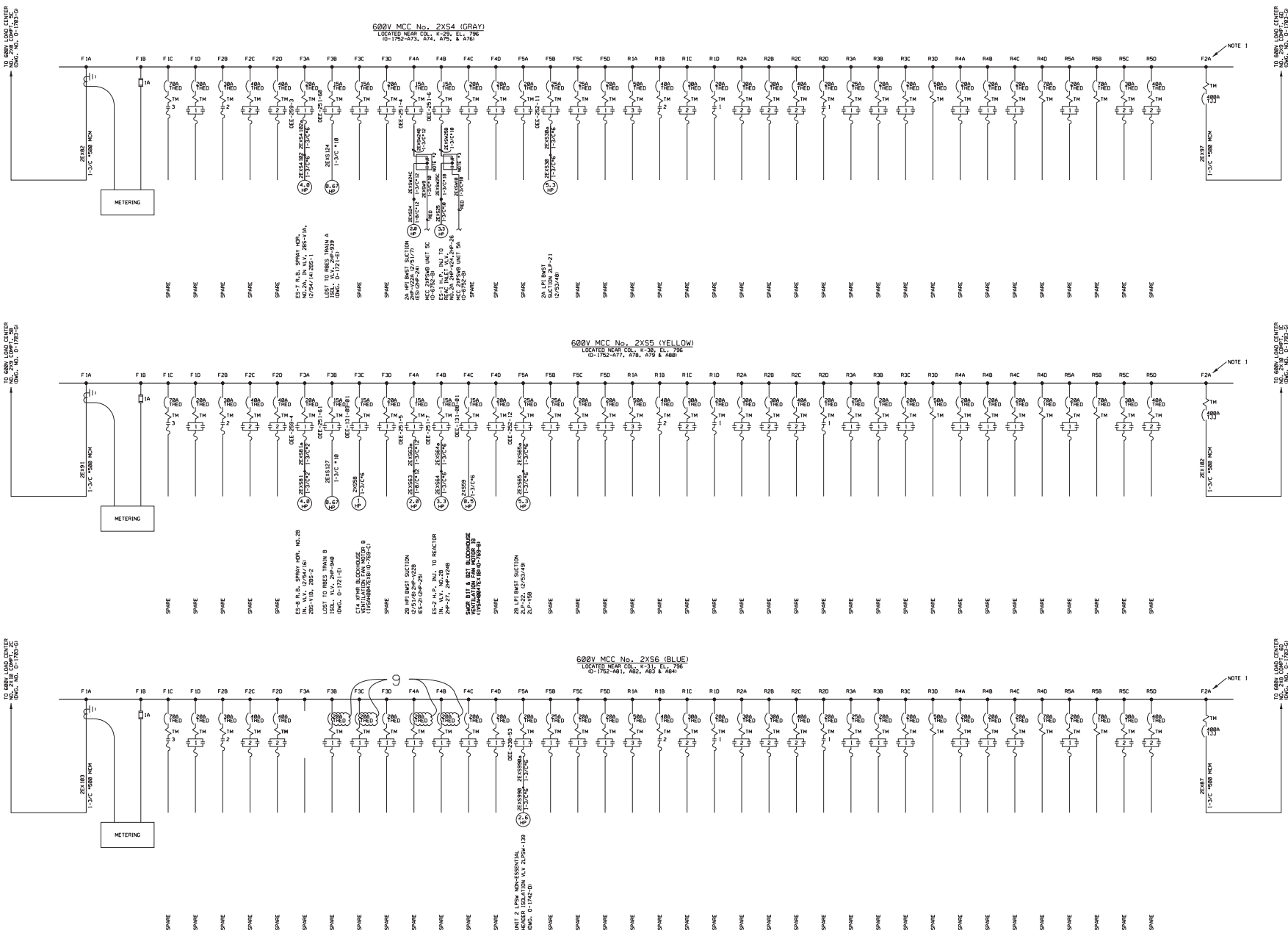




RAI-5.c
Drawing for
UFSAR Fig. 8.4, Pg. 1

ENGINEERED SAFEGUARD (ES) SYSTEM		
CHANNEL NUMBER	INITIATED FROM	FUNCTION
1	REACTOR COOLANT PRESS. > 1800 PSIG OR REACTOR BLOC. PRESS. > 4 PSIG.	H ₂ O INJECTION
2	REACTOR COOLANT PRESS. > 1800 PSIG OR REACTOR BLOC. PRESS. > 4 PSIG.	H ₂ O INJECTION
3	REACTOR COOLANT PRESS. > 1800 PSIG OR REACTOR BLOC. PRESS. > 4 PSIG.	L ₂ O INJECTION
4	REACTOR COOLANT PRESS. > 200 PSIG OR REACTOR BLOC. PRESS. > 4 PSIG.	L ₂ O INJECTION
5	REACTOR BLOC. PRESS. > 4 PSIG.	REACTOR BLOC. ISOLATION INSIDE W/FO REACTOR BLOC. COOLING LINES
6	REACTOR BLOC. PRESS. > 4 PSIG.	REACTOR BLOC. ISOLATION OUTSIDE W/FO REACTOR BLOC. COOLING LINES
7	REACTOR BLOC. PRESS. > 10 PSIG.	REACTOR BLOC. SPRAY
8	REACTOR BLOC. PRESS. > 10 PSIG.	REACTOR BLOC. SPRAY

[illegible]



- NOTES:**
1. THESE BREAKERS TO BE PLACED IN THE OPEN POSITION.
 2. (2) 3-POLE 600V CONTACTORS, MTD IN POW POWER TRANSFER ENCLOSURE 2HP15XTRN803, FOR C/O DWG SEE 0-6724-B
 3. (2) 3-POLE 600V CONTACTORS, MTD IN POW POWER TRANSFER ENCLOSURE 2HP15XTRN804 FOR C/O DWG SEE 0-6724-B

REFERENCE DWGS:
 0-6782 — ONE LINE DIAG MCC 2XPSW
 0-6782-B — INTERCONNECTION DIAGRAM MCC 2XPSW UNITS F1 - F5

RAI-5.c
Drawing for
UFSAR Fig. 8.4, Pg. 3

9 REV PER EC406769 8 REV PER EC407078 7 ECI10111 6 ECI10111 5 REVISED PER EC-410867 4 EC-108103 002003421 3 NSM ON-23106/08/AL1 2 NSM ON-23042/08/PT,AL1 1 NSM ON-23042/08/PT,AL1 0101, REL., PER NSM ON-23052/08/PT,AL1		VTO QA CONDITION 1 DUKE ENERGY OCONEE NUCLEAR STATION UNIT 2 ONE LINE DIAGRAM STATION AUXILIARY CIRCUITS 600V	
NO.	REVISIONS	SCALE	DWG. NO. 0-1703-1