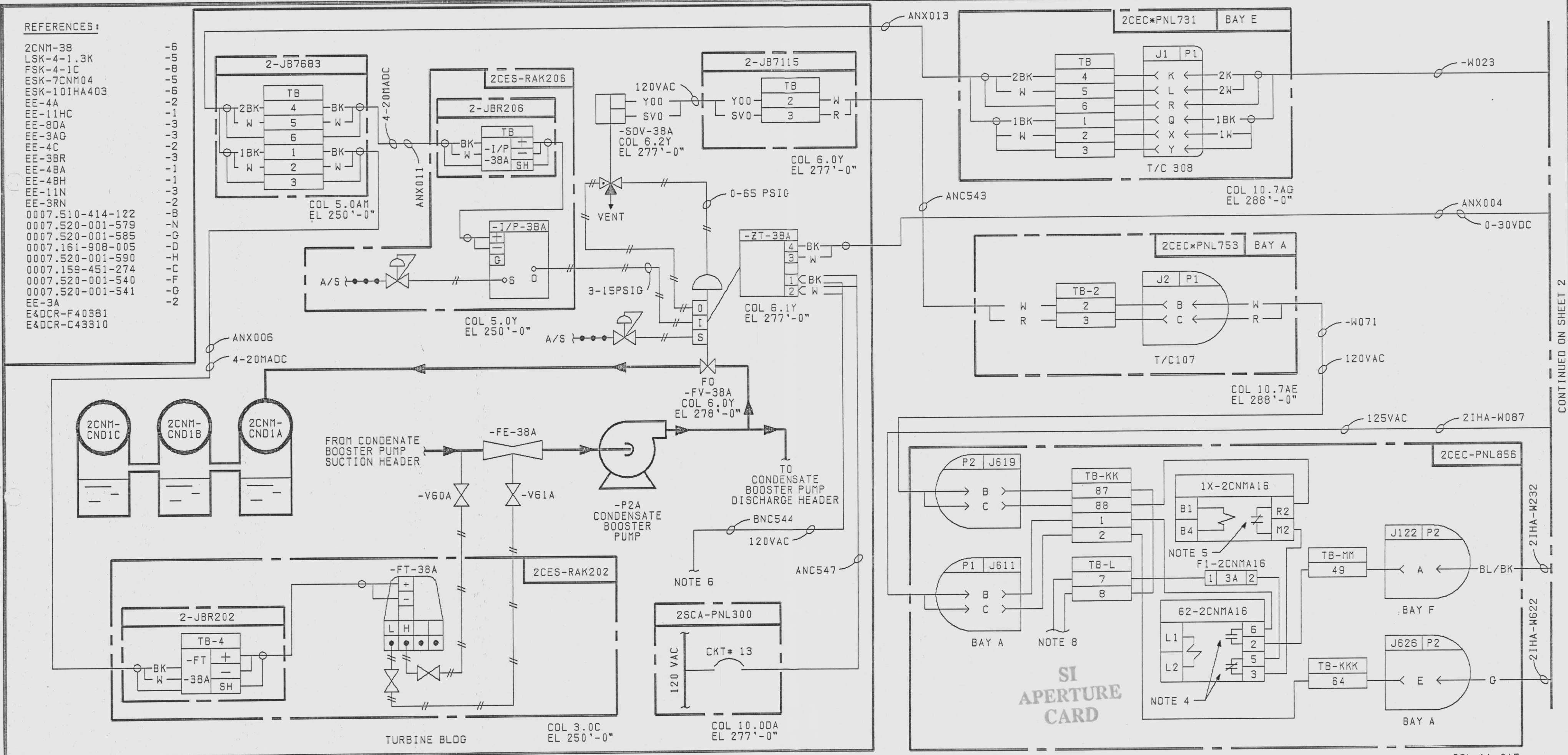


REFERENCES:

- 2CNM-38
- LSK-4-1.3K
- FSK-4-1C
- ESK-7CNM04
- ESK-10IHA403
- EE-4A
- EE-11HC
- EE-8DA
- EE-3AG
- EE-4C
- EE-3BR
- EE-4BA
- EE-4BH
- EE-11N
- EE-3RN
- 0007.510-414-122
- 0007.520-001-579
- 0007.520-001-585
- 0007.161-908-005
- 0007.520-001-590
- 0007.159-451-274
- 0007.520-001-540
- 0007.520-001-541
- EE-3A
- E&DCR-F40381
- E&DCR-C43310

- 6
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- 8
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NOTES:

1. FOR TEST PURPOSES ONLY-NOT TO BE USED FOR CONSTRUCTION.
2. ALL INSTRUMENT AND EQUIPMENT NUMBERS ARE TO BE PREFIXED WITH "2CNM" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
3. LOOP ACTION: FT-38A MONITORS PUMP SUCTION FLOW AND PROVIDES FLOW SIGNALS TO COMPUTER VIA PWR5-38A AND TO FC-38A, FSL-38A, AND FI-38A VIA PWR5-38A AND FY-38A. FC-38A COMPARES THIS FLOW SIGNAL TO AN INTERNAL SET POINT AND PROVIDES AN ERROR SIGNAL TO MODULATE FV-38A VIA E/I-38A AND I/P-38A. FSL-38A ACTUATES ON LOW FLOW ACTUATING FSLX-38A TO ENERGIZE COMPUTER AND ANNUNCIATOR ALARMS IF P2A HAS BEEN RUNNING FOR A MINIMUM TIME PERIOD. SOV-38A DE-ENERGIZES ALLOWING MODULATION OF FV-38A TO PROVIDE MINIMUM PUMP FLOW WHEN CONDENSATE BOOSTER PUMP P1A CONTROL SWITCH 1-2CNMA02 (SEE ESK-7CNM04) IS PLACED IN THE START POSITION OR P2A HAS BEEN RUNNING FOR A MINIMUM TIME PERIOD AFTER AN AUTO START. ZT-38A MONITORS FV-38A POSITION AND PROVIDES POSITION SIGNALS TO ZI-38A.
4. CONTACT 3,5 OPEN AND CONTACT 2,6 CLOSE AFTER MINIMUM TIME DELAY (62-2CNMA16 ENERGIZED BY P2A START). SEE ESK-7CNM04.
5. CONTACT OPENS (1X-2CNMA16 ENERGIZED) WHEN SWITCH 1-2CNMA02 IS PLACED IN THE START POSITION. SEE ESK-7CNM04.
6. TO ZT-38B. SEE TL2CNM-076.
7. NORMALLY OPEN (NO) CONTACTS OPEN ON LOW FLOW. NORMALLY CLOSED (NC) CONTACT CLOSE ON LOW FLOW.
8. 120VAC FROM 2SCI-PNL101 CKT# 8.

DATE	DATE	DATE	DATE	DATE	DATE
4	3	2	1	0	0
PREPARED	PREPARED	PREPARED	PREPARED	PREPARED	PREPARED
APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED

TEST LOOP DIAGRAM
 CONDENSATE BOOSTER PUMP P2A SUCT FLOW
 2CNM-FT-38A, -FV-38A
 NINE MILE POINT NUCLEAR STATION-UNIT 2
 NIAGARA MOHAWK POWER CORPORATION

STONE & WEBSTER ENGINEERING CORPORATION
 SHEET 1 OF 2
 12177-TL2CNM-075

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CONTINUED ON SHEET 2