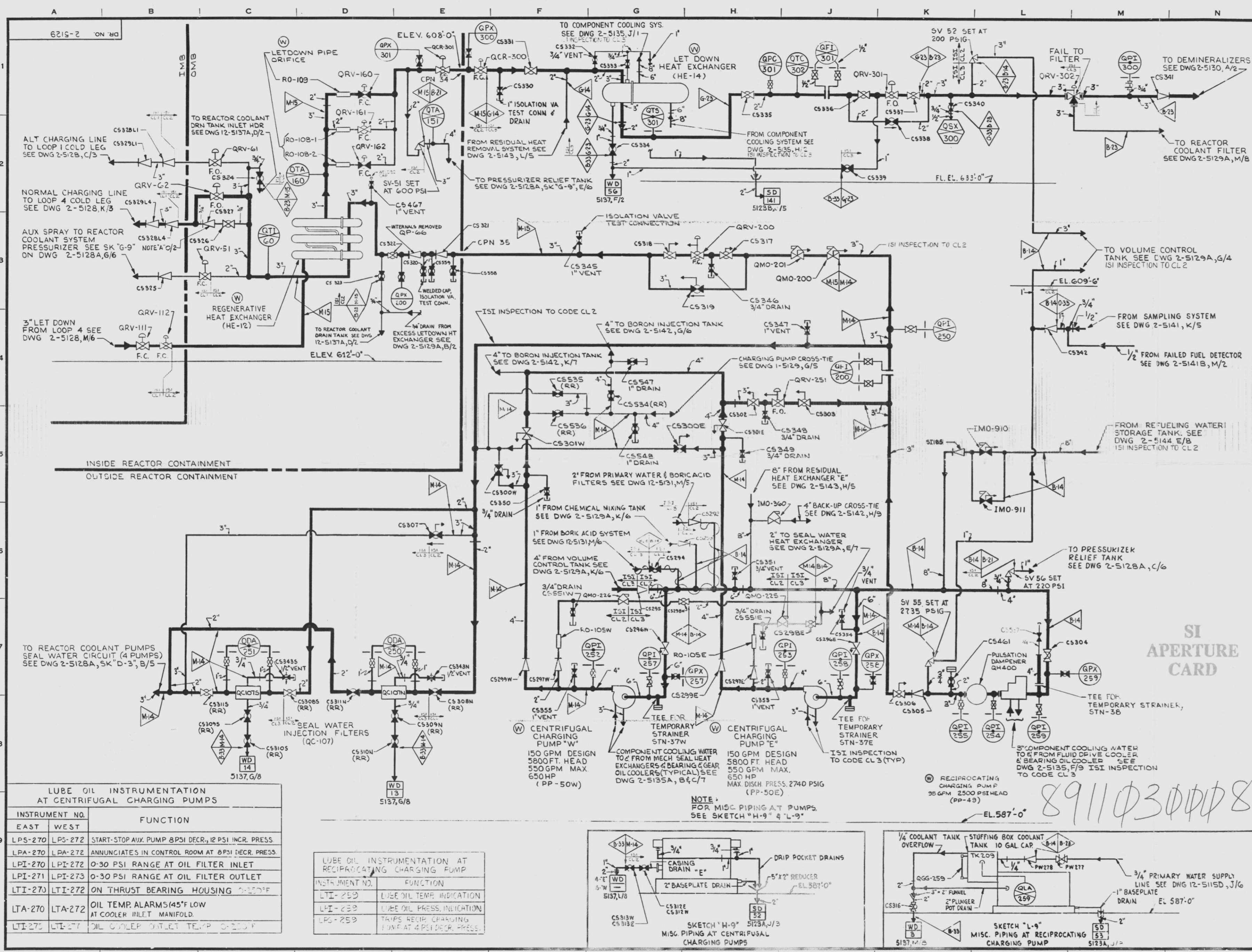


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GENERAL NOTES

LEGEND
— MAIN FLOW
- - - AUX. FLOW

FOR VALVE, INSTRUMENT, SAMPLING, PIPE MATERIAL AND OTHER SYMBOLS NOT EXPLAINED ON THIS DWG AND FOR MARK NUMBER CODES SEE DWGS 12-5103, 5104

SEISMIC CLASS 1

VALVE NOTED "A" B/S VALVE OPENS AT 500 PSID

BY WESTINGHOUSE EXCEPT AS NOTED

ALL VALVES & INSTRUMENTATION SUPPLIED BY

EQUIPMENT SUPPLIED BY

1. FOR CODE CLASS 2 & 3 INSTRUMENT CONNECTIONS, THE ISI BOUNDARY EXTENDS TO AND INCLUDES THE FIRST ROOT VALVE.

2. FOR CODE CLASS 2 & 3 VENTS & DRAINS THE ISI BOUNDARY EXTENDS TO & INCLUDES THE FIRST NORMALLY CLOSED VALVE.

3. (RR) - INDICATES REACH ROD REQUIRED.

COMPOSITE FLOW REF 2-5104.B.

THE UNIT PREFIX DESIGNATION FOR EACH COMPONENT IDENTIFICATION NUMBER IS "2" UNLESS OTHERWISE NOTED.

HAND OPERATED VALVE IDENTIFICATION NUMBERS

1. ONLY "UNIQUE VALVE NUMBERS" APPEAR ON THIS DRAWING. SEE SEPARATE VALVE IDENTIFICATION LIST FOR EQUIVALENT DESIGN (MCR) NUMBERS.

2. TAG NUMBERS MODIFIED FOR DRAWING USE AS FOLLOWS: TAG # 2-NSW-VLOS-W APPEARS AS: NSWVW

3. INSTRUMENT ROOT VALVE MARK "R" IS NOT SHOWN ON DRAWING (SEE VALVE IDENTIFICATION LIST) DERIVED BY ADDING TO INSTRUMENT NUMBER: FOR SINGLE IMPULSE (VI) FOR DOUBLE IMPULSE (VI/STREAM) V2/DOWNSTREAM

5/1/89 20 [Signature] APPROVED

FOR REVISION DESCRIPTION SEE SEPARATE REVISION RECORD FOR THIS DRAWING

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INDIANA & MICHIGAN ELECTRIC CO
DONALD C. COOK
NUCLEAR PLANT

FLOW DIAGRAM CVCS - REACTOR LETDOWN & CHARGING

UNIT NO. 2

DR. NO. OP 2-5129-20

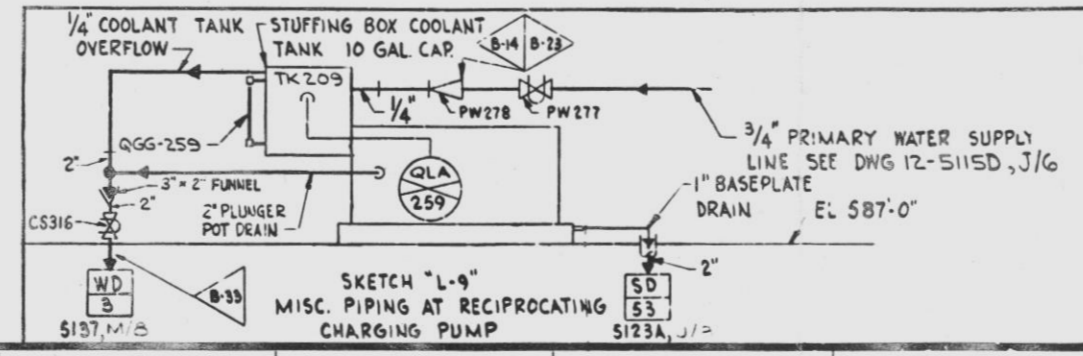
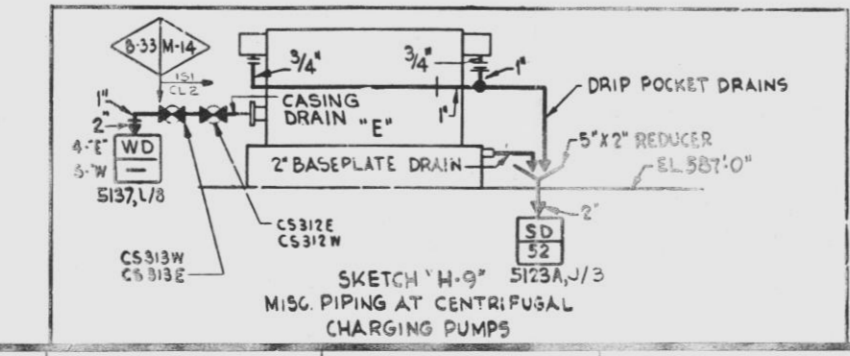
SCALE: AS SHOWN
DATE: 5/1/89
BY: [Signature]
CHECKED: [Signature]
AMERICAN ELECTRIC POWER SERVICE CORP.
2 BROADWAY NEW YORK

LUBE OIL INSTRUMENTATION AT CENTRIFUGAL CHARGING PUMPS

INSTRUMENT NO.	FUNCTION
EAST WEST	
LPS-270 LPS-272	START-STOP AUX PUMP @ PSI DECR, 12 PSI INCR. PRESS.
LPA-270 LPA-272	ANNUNCIATES IN CONTROL ROOM AT @ PSI DECR. PRESS.
LPI-270 LPI-272	0-30 PSI RANGE AT OIL FILTER INLET
LPI-271 LPI-273	0-30 PSI RANGE AT OIL FILTER OUTLET
LTI-270 LTI-272	ON THRUST BEARING HOUSING
LTA-270 LTA-272	OIL TEMP. ALARMS (45°F LOW AT COOLER INLET MANIFOLD)
LTI-271 LTI-273	OIL COOLER OUTLET TEMP.

LUBE OIL INSTRUMENTATION AT RECIPROCATING CHARGING PUMP

INSTRUMENT NO.	FUNCTION
LTI-250	LUBE OIL TEMP. INDICATION
LPI-250	LUBE OIL PRESS. INDICATION
LPS-250	TRIPS RECH. CHARGING PUMP AT 4 PSI DECR. PRESS.



SI APERTURE CARD

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