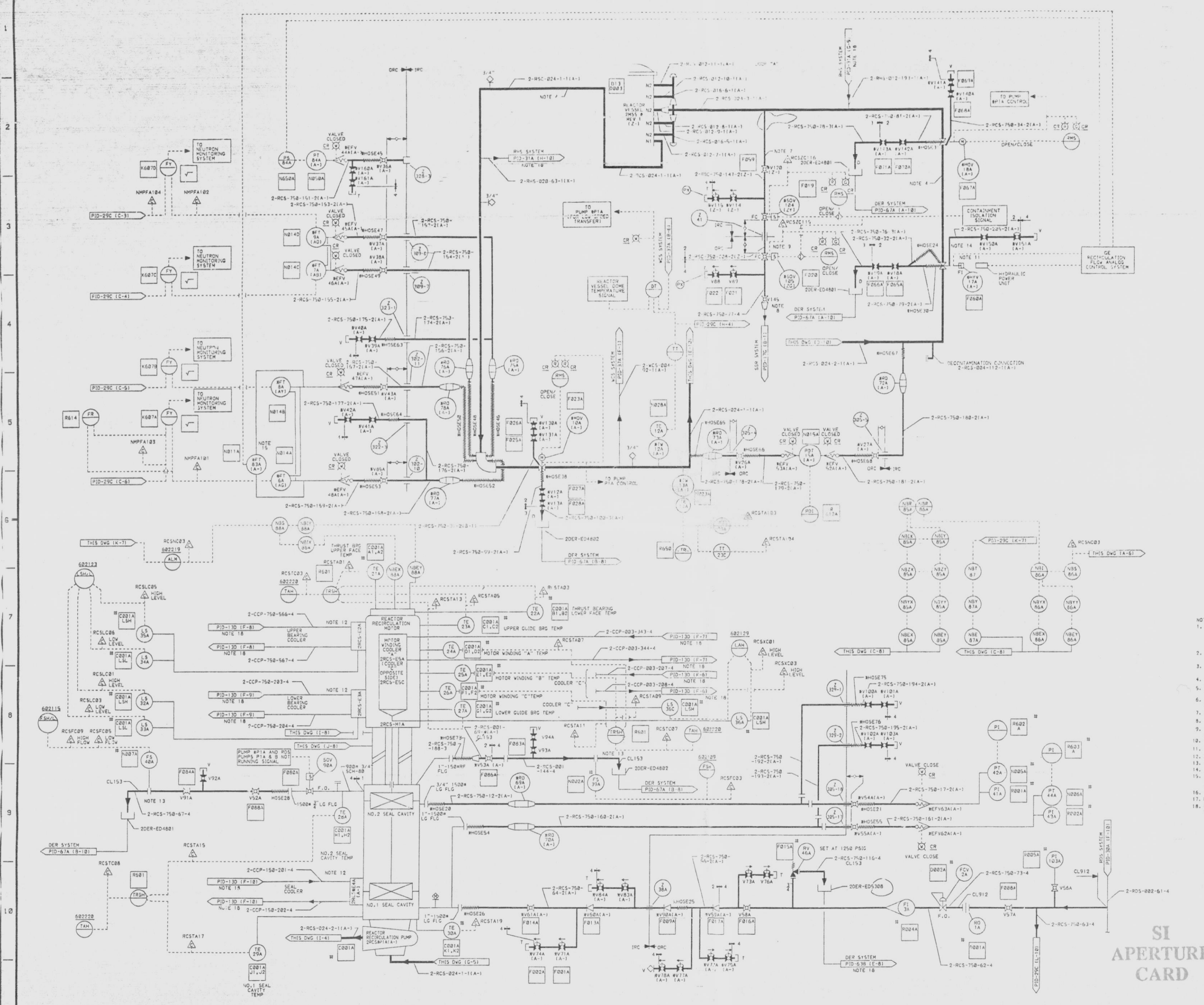


12177-PID-29B-14

| MARK NO. | VALVE DESCRIPTION | SIZE | NO. OF VALVES |
|--|-------------------|------|---------------|
| V211A, 189 | V211A VC-2X0 | 3/4" | 2 |
| V211A | SUPPLIES TO | 2" | 1 |
| V211A, 18A | SUPPLIES TO | 2" | 2 |
| V121A, 17A, 18A, 19A, 20A, 21A, 22A, 23A, 24A, 25A, 26A, 27A, 28A, 29A, 30A, 31A, 32A, 33A, 34A, 35A, 36A, 37A, 38A, 39A, 40A, 41A, 42A, 43A, 44A, 45A, 46A, 47A, 48A, 49A, 50A, 51A, 52A, 53A, 54A, 55A, 56A, 57A, 58A, 59A, 60A, 61A, 62A, 63A, 64A, 65A, 66A, 67A, 68A, 69A, 70A, 71A, 72A, 73A, 74A, 75A, 76A, 77A, 78A, 79A, 80A, 81A, 82A, 83A, 84A, 85A, 86A, 87A, 88A, 89A, 90A, 91A, 92A, 93A, 94A, 95A, 96A, 97A, 98A, 99A, 100A | V211A VC-2 | 3/4" | 24 |
| V221A, 56A, 57A, 58A, 59A, 60A, 61A, 62A, 63A, 64A, 65A, 66A, 67A, 68A, 69A, 70A, 71A, 72A, 73A, 74A, 75A, 76A, 77A, 78A, 79A, 80A, 81A, 82A, 83A, 84A, 85A, 86A, 87A, 88A, 89A, 90A, 91A, 92A, 93A, 94A, 95A, 96A, 97A, 98A, 99A, 100A | V211A VC-4 | 3/4" | 6 |
| V33A | V211A VC-3 | 1" | 1 |
| V29A, 60A, 92A | V211A VC-2 | 3/4" | 3 |
| V77A, 127, 14A, 75A, 77A, 78A, 83A, 88A | V211A VC-2 | 3/4" | 3 |
| V73A, 76A, 99, 100 | V211A VC-4 | 3/4" | 4 |
| V11A, 151A | V211A VC-2 | 3/4" | 2 |
| V115 | V211A VC-2 | 3/4" | 2 |
| V129, 158A | V211A VC-2 | 3/4" | 2 |
| V145 | V211A VC-4 | 3/4" | 1 |
| V132A, 143A | V211A VC-2 | 1/4" | 3 |
| V131A, V132A, 142A | V211A VC-2N | 3/4" | 3 |
| V299A | V211A VC-4 | 3/4" | 1 |



- NOTES:
1. ALL INSTRUMENT & EQUIPMENT NUMBERS TO BE PREFIXED WITH 'RCS-750'. EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ALTERNATE VALVE IDENTIFICATION SHALL BE A PART OF THE NUCLEAR SAFETY FEATURES SYSTEM.
 2. GE IDENTIFICATION NUMBERS ARE SHOWN IN SQUARES TO BE PREFIXED BY 'RCS-750' EXCEPT AS OTHERWISE SHOWN.
 3. ALL INSTRUMENT LINES INSIDE OF THE ORIVEL TO BE CL 1516. ALL INSTRUMENT LINES OUTSIDE OF THE ORIVEL TO BE CL 1625.
 4. GE SUPPLIED RECIRC PIPING IS OF TYPE 316L MATERIAL.
 5. LINES 1" NOMINAL PIPE SIZE AND SMALLER WHICH ARE PART OF THE REACTOR COOLANT PRESSURE BOUNDARY (RCPB) SHALL BE SAFETY CLASS 2.
 6. ALL INSULATED VALVE, DRAIN, AND VENT CONNECTIONS ARE 3/4" UNLESS OTHERWISE NOTED.
 7. SAMPLE PIPING IS 3/4" SCH 40S, TYPE 316L STAINLESS STEEL.
 8. SAMPLE TUBING IS 250 OD, TYPE 316 STAINLESS STEEL.
 9. UNION ENDS ARE PROVIDED BEFORE AND AFTER THE FLOW SWITCH.
 10. SOLENS INSTALLED DIRECTLY ON THE END OF PENETRATION ASSEMBLY END.
 11. RECIRC VALVES #V211A, #V211B, #V211C, VENT & DRAIN LINES ARE CL1516.
 12. SEE PID-29A FOR HYDRAULIC ACTUATOR PIPING CONNECTION DETAILS.
 13. COMPONENT COOLING WATER CONNECTION SIZE & TYPE SHOWN ON PID-130.
 14. UNION ENDS ARE PROVIDED BEFORE AND AFTER THE FLOW SWITCH.
 15. THIS INSTRUMENT REQUIRES GEOMETRIC IDENTIFICATION TO QUALITY PURCHASED, INSTALLED, TESTED AND CALIBRATED TO QUALITY ASSURANCE STANDARD REQUIREMENTS.
 16. #DENOTES EQUIPMENT SUPPLIED BY GE/ENG.
 17. #MIN DENOTES MINIMUM DI. INCH FOR INSTALLATION.
 18. NO FLGS SHOWN ON CONFORMING DOCUMENT. COORDINATES PROVIDE INTERFACE LOCATION.

SI APERTURE CARD
NUCLEAR SAFETY RELATED
QA CAT I, II

NY NIAGARA MOHAWK
NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.

PIPING & INSTRUMENTATION DIAGRAM
REACTOR RECIRCULATION SYSTEM

| NO. | REV. | DATE | DESCRIPTION OF REVISION | BY | CHKD. | APP'D. | DATE | DESCRIPTION OF REVISION | BY | CHKD. | APP'D. | DATE |
|-----|---------|------|---|-----|-------|--------|------|---|----|-------|--------|------|
| 13 | 2-15-91 | | INCORPORATES EDC 2182318 INCORPORATES FDC 2182318 INCORPORATES MOD P211A/11-1 | KSB | BAL | | | INCORPORATES EDC 2112318 INCORPORATES NEW BORDER | UB | R5B | | |
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