



SYSTEM BC

| REFERENCE DRAWING              | REVISION | DATE     |
|--------------------------------|----------|----------|
| 1. RESIDUAL HEAT REMOVAL PUMP  | 1        | 10/20/66 |
| 2. REACTOR FLOODING SYSTEM     | 1        | 10/20/66 |
| 3. NUCLEAR ROLLER SYSTEM       | 1        | 10/20/66 |
| 4. LOGIC DIAGRAM               | 1        | 10/20/66 |
| 5. PLANT LEAK DETECTION PIPING | 1        | 10/20/66 |
| 6. LOGIC DIAGRAM               | 1        | 10/20/66 |
| 7. AUTOMATICALLY OPERATED      | 1        | 10/20/66 |

TABLE I  
RHR PUMP TEMPERATURE SENSORS

| LOCK-NUM            | TEMP. SENS. PT. ID. | TEMP. SENS. PT. ID. | TEMP. SENS. PT. ID. | TEMP. SENS. PT. ID. |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| MTR UPPER GUIDE BAR | 4247                | 4248                | 4249                | 4250                |
| MTR THRU GUIDE BAR  | 4251                | 4252                | 4253                | 4254                |
| MTR LOWER GUIDE BAR | 4255                | 4256                | 4257                | 4258                |
| STATUS WINDING COIL | 4259                | 4260                | 4261                | 4262                |
| (3)                 | 4450A               | 4450B               | 4450C               | 4450D               |
| (4)                 | 4451A               | 4451B               | 4451C               | 4451D               |
| (5)                 | 4452A               | 4452B               | 4452C               | 4452D               |
| (6)                 | 4453A               | 4453B               | 4453C               | 4453D               |

- NOTES:
1. THE C.A. I.P.L. NUMBER FOR THIS SYSTEM IS E-1.
  2. TEMPERATURE LEAK DETECTION IS SHOWN ON P.I.D. M-15.
  3. TEMP. ELEMENTS 4450A-D ARE SHOWN ON RECS P.I.D. M-15.
  4. DELETED.
  5. CHEMICAL CLEANING CONNECTIONS TO BE ADDED LATER AS NECESSARY.
  6. PROVISIONS SHALL BE MADE TO TRANSFER CONTROL FROM THE CONTROL ROOM TO THE ALMUTE SHUTDOWN PANEL (L-399).
  7. THIS P.I.D. CONTAINS SYSTEMS OR PORTIONS OF SYSTEMS:
    - AS-MAIN STEAM - 27
    - PROCESS SAMPLING
    - AP-CONDENSATE STORAGE & TRANSFER
    - BC-RESIDUAL HEAT REMOVAL
    - BD-REACTOR COOL ISOLATION COOLING
    - EA-STATION SERVICE WATER
    - EC-FUEL POOL COOLING & CLEANUP
    - ED-HEAT EXCHANGER
  8. A COMMON SUMMARY ALARM IS USED BY ALL OF THE ECCS FLOODING ALARMS. SEE REFERENCES 44-5.
  9. FOLLOWING VALVES HAVE DE NUMBERS SHOWN IN PARENTHESES: V076 (F068B), V076 (F068C), V076 (F068D), V076 (F071), V107 (F068C), V107 (F068A), V107 (F068B).
  10. SEE CIVIL DRAWING 1055-C-0031-01(Q) FOR THE PRESSURE RATING MATERIAL AND CODE CLASS OF THIS PIPING INSIDE THE PRIMARY CONTAINMENT.
  11. EXCESS FLOW CHECK VALVE STATUS LIGHTS AND RESET SWITCHES ARE LOCATED ON LOCAL PANELS AS NOTED ALARMS AND COMPUTER READOUTS FOR ABNORMAL CONDITIONS WILL BE MONITORED FROM THE CONTROL ROOM. SEE REF. 6.
  12. SEE CIVIL DRAWING 1055-C-0029-01(Q) FOR THE PRESSURE RATING MATERIAL AND CODE CLASS OF THIS PIPING INSIDE PRIMARY CONTAINMENT.
  13. TEST LINE ATTACHED TO BLEND FLANGE WILL BE USED TO TEST VALVE V1-FO22 BY BOLTING TO FLANGE IN HEAD SPRAY LINE. STORE TEST LINE NEARBY ASSURE TONGUE GROOVE FLANGE TO FLANGE MAT. NO.
  14. 1E-440 SPRING ELEMENT SHALL BE WIRED TO PANEL C309. 1E Jockey Pump Seal Vent and Drain will be piped in field to drip pan.
  15. NORMAL CONTAINMENT MAY APPEAR UNDER PUMP DOWN ON P.I.D. IN EACH HEAD WITHIN 10 MINUTES FROM PUMP START. TRANSMITTERS SEE TABLE DRAWING.
  16. THE FOLLOWING VALVES CLOSE ON TRANSFER TO REMOTE SHUTDOWN PANEL: V1-FO21, V1-FO22, V1-FO23, V1-FO24, V1-FO25, V1-FO26, V1-FO27, V1-FO28, V1-FO29, V1-FO30, V1-FO31, V1-FO32, V1-FO33, V1-FO34, V1-FO35, V1-FO36, V1-FO37, V1-FO38, V1-FO39, V1-FO40, V1-FO41, V1-FO42, V1-FO43, V1-FO44, V1-FO45, V1-FO46, V1-FO47, V1-FO48, V1-FO49, V1-FO50, V1-FO51, V1-FO52, V1-FO53, V1-FO54, V1-FO55, V1-FO56, V1-FO57, V1-FO58, V1-FO59, V1-FO60, V1-FO61, V1-FO62, V1-FO63, V1-FO64, V1-FO65, V1-FO66, V1-FO67, V1-FO68, V1-FO69, V1-FO70, V1-FO71, V1-FO72, V1-FO73, V1-FO74, V1-FO75, V1-FO76, V1-FO77, V1-FO78, V1-FO79, V1-FO80, V1-FO81, V1-FO82, V1-FO83, V1-FO84, V1-FO85, V1-FO86, V1-FO87, V1-FO88, V1-FO89, V1-FO90, V1-FO91, V1-FO92, V1-FO93, V1-FO94, V1-FO95, V1-FO96, V1-FO97, V1-FO98, V1-FO99, V1-FO100.
  17. RHR PUMP TEMP SENSORS ARE THERMO COUPLES PHYSICALLY ATTACHED TO THEIR APPLICABLE BEARINGS.
  18. PIPE AND FITTINGS SHALL BE AISI 316.

TABLE 2 (NOTE 10)

| VALVE    | STATUS | TEST | REMARKS |
|----------|--------|------|---------|
| V1-FO22  | CLOSE  | TEST |         |
| V1-FO23  | CLOSE  | TEST |         |
| V1-FO24  | CLOSE  | TEST |         |
| V1-FO25  | CLOSE  | TEST |         |
| V1-FO26  | CLOSE  | TEST |         |
| V1-FO27  | CLOSE  | TEST |         |
| V1-FO28  | CLOSE  | TEST |         |
| V1-FO29  | CLOSE  | TEST |         |
| V1-FO30  | CLOSE  | TEST |         |
| V1-FO31  | CLOSE  | TEST |         |
| V1-FO32  | CLOSE  | TEST |         |
| V1-FO33  | CLOSE  | TEST |         |
| V1-FO34  | CLOSE  | TEST |         |
| V1-FO35  | CLOSE  | TEST |         |
| V1-FO36  | CLOSE  | TEST |         |
| V1-FO37  | CLOSE  | TEST |         |
| V1-FO38  | CLOSE  | TEST |         |
| V1-FO39  | CLOSE  | TEST |         |
| V1-FO40  | CLOSE  | TEST |         |
| V1-FO41  | CLOSE  | TEST |         |
| V1-FO42  | CLOSE  | TEST |         |
| V1-FO43  | CLOSE  | TEST |         |
| V1-FO44  | CLOSE  | TEST |         |
| V1-FO45  | CLOSE  | TEST |         |
| V1-FO46  | CLOSE  | TEST |         |
| V1-FO47  | CLOSE  | TEST |         |
| V1-FO48  | CLOSE  | TEST |         |
| V1-FO49  | CLOSE  | TEST |         |
| V1-FO50  | CLOSE  | TEST |         |
| V1-FO51  | CLOSE  | TEST |         |
| V1-FO52  | CLOSE  | TEST |         |
| V1-FO53  | CLOSE  | TEST |         |
| V1-FO54  | CLOSE  | TEST |         |
| V1-FO55  | CLOSE  | TEST |         |
| V1-FO56  | CLOSE  | TEST |         |
| V1-FO57  | CLOSE  | TEST |         |
| V1-FO58  | CLOSE  | TEST |         |
| V1-FO59  | CLOSE  | TEST |         |
| V1-FO60  | CLOSE  | TEST |         |
| V1-FO61  | CLOSE  | TEST |         |
| V1-FO62  | CLOSE  | TEST |         |
| V1-FO63  | CLOSE  | TEST |         |
| V1-FO64  | CLOSE  | TEST |         |
| V1-FO65  | CLOSE  | TEST |         |
| V1-FO66  | CLOSE  | TEST |         |
| V1-FO67  | CLOSE  | TEST |         |
| V1-FO68  | CLOSE  | TEST |         |
| V1-FO69  | CLOSE  | TEST |         |
| V1-FO70  | CLOSE  | TEST |         |
| V1-FO71  | CLOSE  | TEST |         |
| V1-FO72  | CLOSE  | TEST |         |
| V1-FO73  | CLOSE  | TEST |         |
| V1-FO74  | CLOSE  | TEST |         |
| V1-FO75  | CLOSE  | TEST |         |
| V1-FO76  | CLOSE  | TEST |         |
| V1-FO77  | CLOSE  | TEST |         |
| V1-FO78  | CLOSE  | TEST |         |
| V1-FO79  | CLOSE  | TEST |         |
| V1-FO80  | CLOSE  | TEST |         |
| V1-FO81  | CLOSE  | TEST |         |
| V1-FO82  | CLOSE  | TEST |         |
| V1-FO83  | CLOSE  | TEST |         |
| V1-FO84  | CLOSE  | TEST |         |
| V1-FO85  | CLOSE  | TEST |         |
| V1-FO86  | CLOSE  | TEST |         |
| V1-FO87  | CLOSE  | TEST |         |
| V1-FO88  | CLOSE  | TEST |         |
| V1-FO89  | CLOSE  | TEST |         |
| V1-FO90  | CLOSE  | TEST |         |
| V1-FO91  | CLOSE  | TEST |         |
| V1-FO92  | CLOSE  | TEST |         |
| V1-FO93  | CLOSE  | TEST |         |
| V1-FO94  | CLOSE  | TEST |         |
| V1-FO95  | CLOSE  | TEST |         |
| V1-FO96  | CLOSE  | TEST |         |
| V1-FO97  | CLOSE  | TEST |         |
| V1-FO98  | CLOSE  | TEST |         |
| V1-FO99  | CLOSE  | TEST |         |
| V1-FO100 | CLOSE  | TEST |         |

APERTURE CARD

BEUTEL  
NUCLEAR ELECTRIC AND GAS COMPANY  
HOPE CREEK GENERATING STATION

D & I D  
RESIDUAL HEAT REMOVAL

1055 M-51-1  
SHEET 1 OF 7

**KIDS**

8307260998

