

LICENSEE EVENT REPORT

CONTROL BLOCK: _____ (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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0 1 | REPORT SOURCE | L | 0 5 0 0 | 0 3 1 6 | 1 2 2 9 8 | 2 | 0 2 0 3 8 3 |

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)
 0 2 | DURING AN ECCS FLOW BALANCE TEST, A FLOW RATE OF 300 GPM COULD NOT BE OBTAINED
 0 3 | THROUGH TRAIN "B" OF THE SAFETY INJECTION SYSTEM. INVESTIGATION REVEALED THAT,
 0 4 | IN ADDITION TO THE NORMAL VALVE INTERNALS, A SECOND VALVE DISC WAS LODGED IN THE
 0 5 | OUTLET OF 4 INCH CHECK VALVE, SI-152S. THE UNATTACHED VALVE DISC HAD BEEN LEFT
 0 6 | IN THE VALVE DURING A PREVIOUS REPAIR IN OCTOBER 1981. (RO 81-050/01T-0). THE
 0 7 | OBSTRUCTION WAS REMOVED AND THE FLOW BALANCE TEST WAS COMPLETED SATISFACTORILY.
 0 8 | (REFERENCE VELAN ENGINEERING COMPANY DRAWING NUMBER 78501.)

0 9 | SYSTEM CODE | CAUSE CODE | CAUSE SUBCODE | COMPONENT CODE | COMP. SUBCODE | VALVE SUBCODE

(17) LER/RO REPORT NUMBER | EVENT YEAR | SEQUENTIAL REPORT NO. | OCCURRENCE CODE | REPORT TYPE | REVISION NO.

ACTION TAKEN | FUTURE ACTION | EFFECT ON PLANT | SHUTDOWN METHOD | HOURS | ATTACHMENT SUBMITTED | NPRD-4 FORM SUB. | PRIME COMP. SUPPLIER | COMPONENT MANUFACTURER

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)
 1 0 | THE FAILURE TO LOCATE THE UNATTACHED VALVE DISC DURING THE PREVIOUS REPAIR IN
 1 1 | OCTOBER, 1981 IS A RESULT OF INADEQUATE INSPECTION. THE ADMINISTRATIVE CONTROLS IN
 1 2 | PLACE AT THAT TIME WHICH PERMITTED THIS EVENT TO OCCUR ARE BEING REVIEWED FOR THE
 1 3 | NECESSARY CHANGES TO PREVENT RECURRENCE.
 1 4 |

1 5 | FACILITY STATUS | % POWER | OTHER STATUS | METHOD OF DISCOVERY | DISCOVERY DESCRIPTION

1 6 | ACTIVITY RELEASED | CONTENT | AMOUNT OF ACTIVITY | LOCATION OF RELEASE

1 7 | PERSONNEL EXPOSURES | NUMBER | TYPE | DESCRIPTION

1 8 | PERSONNEL INJURIES | NUMBER | DESCRIPTION

1 9 | LOSS OF OR DAMAGE TO FACILITY | TYPE | DESCRIPTION

2 0 | PUBLICITY | DESCRIPTION

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SUPPLEMENT TO LER #82-113 EVENT DESCRIPTION

DURING AN ECCS FLOW BALANCE TEST OF THE UNIT TWO SAFETY INJECTION SYSTEM, THE REQUIRED FLOW RATE COULD NOT BE OBTAINED THROUGH TRAIN "B" (SOUTH LOOP). PRESSURE GAGES WERE INSTALLED AT VARIOUS POINTS OF THE FLOW PATH TO LOCATE THE PROBLEM. DURING SUBSEQUENT RETESTS THE DATA INDICATED THAT FLOW WAS BEING RESTRICTED IN THE AREA OF CHECK VALVE SI-152S.

A RADIOGRAPHIC EXAMINATION OF THE VALVE BODY REVEALED THAT, IN ADDITION TO THE NORMAL VALVE INTERNALS, A SECOND VALVE DISC WAS LODGED IN THE OUTLET SIDE OF THE VALVE.

THE CHECK VALVE WAS DISASSEMBLED ON DECEMBER 30, 1982 AND THE LODGED DISC WAS REMOVED. THE NORMAL VALVE INTERNALS WERE ALSO REMOVED, INSPECTED AND REINSTALLED AT THAT TIME. UPON REASSEMBLY OF THE VALVE, AN ECCS FLOW BALANCE WAS PERFORMED WITH ACCEPTABLE RESULTS.

A VISUAL INSPECTION OF THE SECOND DISC INDICATED THAT THE THREADED SHANK HAD BROKEN OFF APPROXIMATELY 3/16" ABOVE THE BOSS. NEITHER THE DISC NUT (WITH BROKEN DISC SHANK AND LOCK WIRE ATTACHED) NOR THE DISC WASHER WERE IN THE VALVE BODY OR ADJACENT PIPING.

THROUGH THE USE OF FLOW DIAGRAMS AND ISOMETRIC DRAWINGS, SELECTED LOCATIONS AND COMPONENTS IN THE SAFETY INJECTION AND RESIDUAL HEAT REMOVAL SYSTEMS WHERE THE MISSING PARTS MAY HAVE COME TO REST WERE RADIOGRAPHED. THE RADIOGRAPHY DID NOT DISCLOSE THE MISSING PARTS WHICH, THEREFORE, ARE PRESUMED TO HAVE BEEN CARRIED OUT THROUGH THE OUTLET NOZZLE AND INTO THE REACTOR COOLANT SYSTEM.

ON DECEMBER 31, 1982, WESTINGHOUSE WAS REQUESTED TO PERFORM A SAFETY ANALYSIS WHICH ASSUMED THAT THE MISSING CHECK VALVE PARTS WERE ADRIFT IN THE REACTOR COOLANT SYSTEM. ON JANUARY 20, 1983, WESTINGHOUSE REPORTED THAT THE PRESENCE OF THESE ITEMS IN THE REACTOR COOLANT SYSTEM DID NOT PRESENT A SAFETY CONCERN.

SUPPLEMENT TO LER #82-113 CAUSE DESCRIPTION AND CORRECTIVE ACTION

IN MAY, 1981, LEAK TESTING WAS CONDUCTED ON EIGHTEEN (18) UNIT TWO ECCS CHECK VALVES AS A RESULT OF CONCERNS ABOUT LEAKAGE BETWEEN PRIMARY SYSTEMS. DURING THIS TESTING, THE LEAKAGE RATE OF CHECK VALVE SI-152S WAS DETERMINED TO BE EXCESSIVE AND PLANS WERE MADE TO INSPECT THE VALVE DURING THE NEXT UNIT TWO OUTAGE.

IN OCTOBER, 1981, THE CHECK VALVE WAS OPENED AND THE VALVE DISC WAS FOUND TO BE MISSING.

PLANT MANAGEMENT DIRECTED THAT A SEARCH BE CONDUCTED FOR THE MISSING DISC. IT WAS SUBSEQUENTLY REPORTED THAT THE VALVE DISC WAS NOT IN THE VALVE BODY AND DETERMINED THAT THE DISC WAS TOO LARGE TO HAVE EXITED THE VALVE BODY. IT WAS CONCLUDED AT THE TIME THAT THE VALVE DISC WAS NEVER INSTALLED OR HAD BEEN REMOVED DURING PREOPERATIONAL TESTING AND NOT REINSTALLED. THE VALVE INTERNALS WERE REINSTALLED USING SPARE COMPONENTS ON HAND.

SAFETY INJECTION FLOW THROUGH THE CHECK VALVE WAS VERIFIED FOLLOWING REPAIR. AN ECCS FLOW BALANCE TEST WAS NOT PERFORMED AT THE TIME. LICENSEE EVENT REPORT NUMBER 316/81-050/01T-0 WAS SUBMITTED TO THE NRC ON OCTOBER 28, 1981, WHICH DESCRIBED THE EVENT.

IN AN UNRELATED EVENT, (REFER TO LICENSEE EVENT REPORT 315/82-075/03L-0) WHICH OCCURRED DURING THE 1982 UNIT ONE REFUELING OUTAGE (JULY THROUGH SEPTEMBER), IT WAS DETERMINED THAT AN ECCS FLOW BALANCE TEST WOULD BE PERFORMED DURING ALL FUTURE REFUELING OUTAGES IN EACH UNIT. IT WAS TO FULFILL THIS PASTOR COMMITMENT THAT THE ECCS FLOW BALANCE WHICH IDENTIFIED THIS EVENT WAS BEING CONDUCTED.

AS A RESULT OF THIS EVENT, UNIT TWO CHECK VALVE SI-152N IN THE NORTH SAFETY INJECTION LOOP WAS OPENED AND INSPECTED. THE INTERNALS WERE DISASSEMBLED, VISUALLY INSPECTED AND THE DISC AND HANGER WERE DYE PENETRANT TESTED WITH NO RELEVANT INDICATIONS NOTED. RADIOGRAPHIC EXAMINATION OF THE IDENTICAL VALVES IN UNIT ONE HAS BEEN PERFORMED. THE INTERNALS WERE FOUND TO BE INTACT AND THE VALVE GEOMETRY WAS DETERMINED TO BE CORRECT.

SUPPLEMENT TO LER #82-113 CAUSE DESCRIPTION AND CORRECTIVE ACTION Con't

THE ADMINISTRATIVE CONTROLS IN PLACE AT THAT TIME WHICH PERMITTED THIS EVENT TO OCCUR ARE BEING REVIEWED FOR THE NECESSARY CHANGES TO PREVENT RECURRENCE.

A SAFETY EVALUATION OF THIS EVENT IS PRESENTLY BEING PREPARED AND WILL BE INCLUDED IN OUR FOLLOW-UP TO THIS REPORT.