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Docket No. 50-397

May 18, 1983

602-83-436

Mr. J. B. Martin
Regional Administrator
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Subject: NUCLEAR PROJECT NO. 2
10CFR50.55(e) POTENTIALLY REPORTABLE CONDITIONS #216, RHR
RELIEF VALVE VENTS; #223, STANDBY LIQUID CONTROL SYSTEM
(SLCS); AND #232, LPCS AND RHR SUPPORT PIN RECEPTACLES

References: a) Telecon dated October 22, 1982, R.T. Johnson to John
Elin
b) Telecon dated January 27, 1983, L.C. Floyd to R. Dodds
(QA2-83-029)
c) Telecon dated January 21, 1983, L.C. Floyd to John
Elin (QA2-83-023)

In accordance with the provisions of 10CFR50.55(e), your office was informed by telephone, of the above subject conditions. Attachments A and B provide the Project's interim reports on Conditions #216, RHR Relief Valve Vents and #223, Standby Liquid Control System (SLCS). Attachment C provides our final report for Condition #232, LPCS and RHR Support Pin Receptacles. We will continue to provide your office with quarterly updates on Conditions 216 and 223.

If you have any questions or desire further information regarding these subjects, please contact Roger Johnson, WNP-2 Project QA Manager, (509) 377-2501, extension 2712.

Original Signed By

C. S. Carlisle

C. S. Carlisle

Program Director, WNP-2

Attachments: (3) As stated

cc: W.S. Chin, BPA
A. Forrest, Burns and Roe - HAPO
N.D. Lewis, EFSEC
WNP-2 Files/917B/917Y
A. Toth, NRC Resident Inspector

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SECTION	WNP-2 Files/917B/917PE	PE	PL	COA	
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DATE	5/16/83	5/16/83	5/16/83	5/14/83	5/16/83

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ATTACHMENT A

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397
LICENSE NO. CPPR-93
10CFR50.55(e) CONDITION #216
RHR RELIEF VALVE VENTS

INTERIM REPORT

Description of Deficiency

There are 4 RHR relief valves which have a 2" vent hole on the valve body. The valves are RHR-V-55A, RHR-V-95A, RHR-V-55B, and RHR-V-95B. These valves are situated such that the failure of a single motor operated valve, RCIC-V-113, would allow an open leakage path from the wetwell (primary containment) directly to the reactor building (secondary containment).

The attached sketch illustrates the situation. Containment penetration X-116 is an open path into the wetwell's gaseous volume. In the steam condensing mode, RHR-V-55A (or B) and RHR-V-95A (or B) protect the RHR heat exchanger from over-pressurization. In order to accommodate condensation in the line between these valves and containment, a vacuum breaker has been installed that consists of penetration X-116, RCIC-V-113, RHR-V-102, RHR-V-101A (or B), RHR-V-103A (or B), and RHR-V-179A (or B).

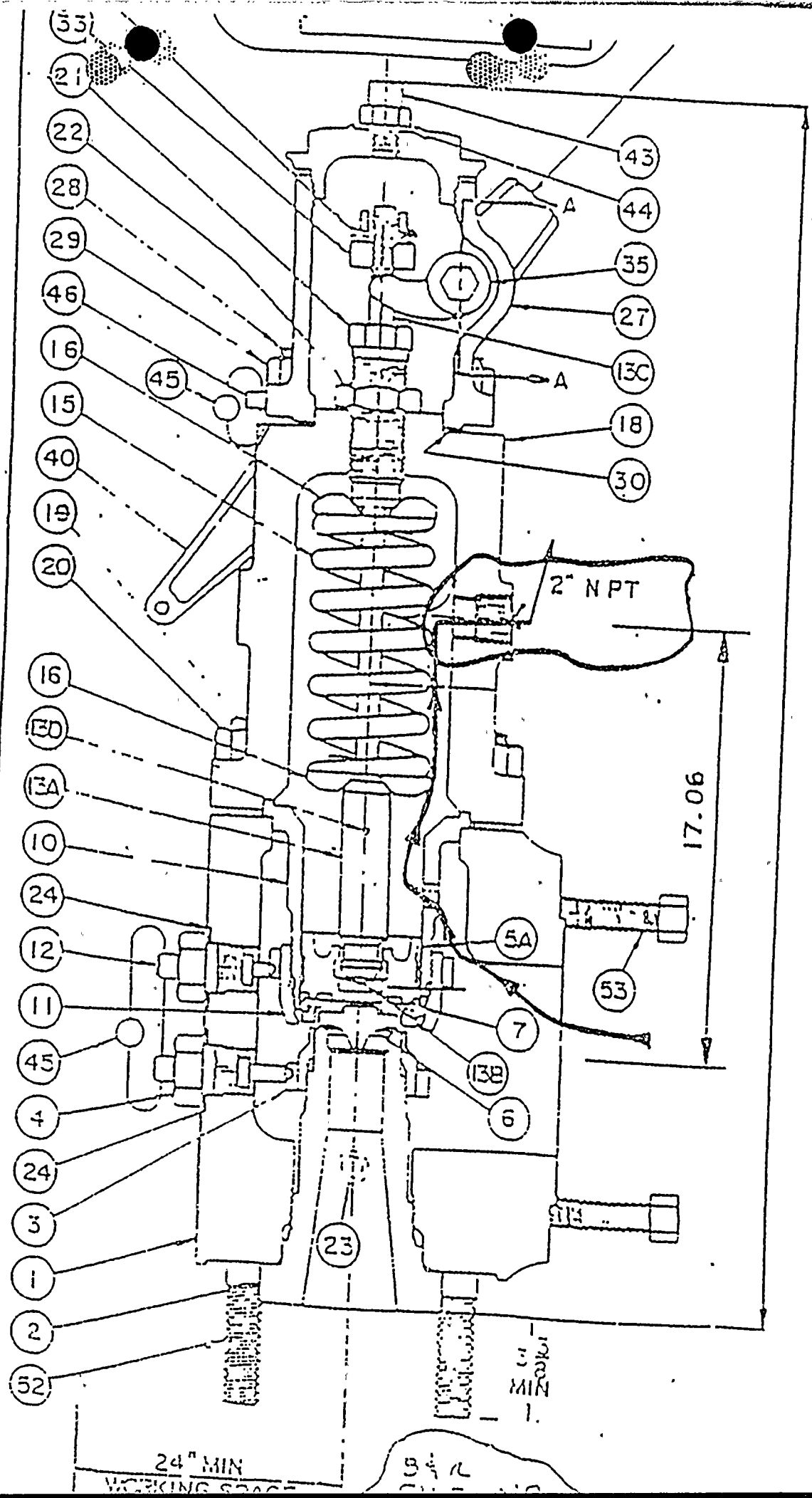
All of these valves are normally open. Upon a containment isolation signal, the only valve to close would be RCIC-V-113. If it failed to close, and a LOCA had occurred, the wetwell would pressurize, and the wetwell atmosphere would vent down this path. Details of the RHR relief valve show that a flow path exists which would allow the wetwell atmosphere to vent directly to secondary containment.

Safety Implication

Burns and Roe has estimated the gaseous release from these four paths at 5.2×10^4 scfm during the first 450 seconds after a LOCA and at a rate of 4.9×10^3 scfm thereafter. This can be compared to the allowable release rate for primary containment of approximately 1.7 scfm.

Corrective Action

After a review of possible corrective actions, including incorporation of a bellows seal, the Project has decided to remove the relief valves, eliminate the containment leakage path, and deactivate the steam condensing mode of the RHR system. Supply System and Burns and Roe Engineering are preparing the necessary Project Engineering Directives and FSAR changes to implement the corrective action. We will continue to provide your office with quarterly updates on this subject. The next report will be submitted by August 17, 1983.





1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

