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REPORT SOURCE 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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

On 5-16-79, at 900 CST, while reviewing sprinkler hanger modifications proposed by the architect-engineer, it was discovered that such modifications indicated a seismic design deficiency for the Unit 1 and Unit 2 cable spreading room sprinkler systems per HNP-2-FSAR Section 3.2.1.1 and IEEE 308-1971. Subsequent investigation revealed more areas affected. All hangers had been specified according to seismic guidelines assuming worst case, wet pipe variables so that in the isolated dry-pipe conditions the systems were closer to seismic qualification than (continued)

SYSTEM CODE 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

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

The architect-engineer had submitted approved sprinkler system designs to meet NRC commitments which had not received a detailed seismic analysis. Upon recognition of the event, the analysis and modifications were begun immediately on the affected systems. On 5-26-79, modification and qualification of Unit 2 related systems were complete and on 5-29-79, modification of Unit 1 related (continued)

FACILITY STATUS 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

PUBLICITY 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

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POOR ORIGINAL

NRC USE ONLY

GPO 817-926

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Baxley, Georgia 31513

Event Description and Probable Consequences (continued)
calculations indicated.

Cause Description and Corrective Actions (continued)

systems was begun and is to be completed by the end of the Unit 1 Refueling Outage.

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NARRATIVE SUMMARY

LER 2-79-36

In reviewing the Grinnell as-built drawings of new sprinkler systems installed during the first half of 1978, to meet the 1979 due dates, it was discovered by the architect-engineer that these NRC fire protection commitment related systems had received an inadequate seismic review and that modifications would be necessary to meet the design loads. Upon notification of the proposed modifications the responsible personnel on site proceeded to obtain details on design bases and additional systems affected. Pending clarification of the problem, the design deficiency for the more critical area, the common cable spreading room was reported at both units, and the approved design modifications to this area were begun. At this point it was found that several other systems were seismically inadequate. The affected systems, committed operability date, and modification schedule are summarized below:

SPRINKLER SYSTEM	COMMITMENT DATE UNIT 1/UNIT 2	MODIFICATIONS AND COMPLETE QUALIFICATION BY: (UNIT 1/UNIT 2)
Intake Structure (common)	Jan. 31, 1979	5-25-79; no modifications required
RPS Cableway (common)	Unit 1, 1979 refuel	5-26-79
Control Building Corridor at El. 130' (Units 1 & 2)	Unit 1, 1979 refuel	5-26-79/5-26-79
Rx. Building HVAC Rooms at El. 164' (Units 1 & 2)	Unit 1, 1979 refuel/Unit 2, 1980 refuel	6-30-79/5-26-79
Cable Spreading Room	Unit 1, 1979 refuel	5-26-79/5-26-79
Rad-Waste Dry Waste Storage (Unit 1)	N/A	6-30-79
Recirc. MG Set (Unit 1)	Jan. 31, 1979	6-30-79
East Cableway (Unit 1)	July 31, 1978	6-30-79
HPCI Room (Unit 1)	May 31, 1978	6-30-79

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Those systems already declared operable were not impaired in their fire protection functions, and degradation of the seismic qualification of systems beneath the sprinkler systems was minimal since the initial designs were based on seismic guidelines assuming a worse case of water being in the piping of the isolated dry-pipe systems. Final calculations have revealed further modifications, and both calculations and modifications will be complete for areas affecting each unit before start-up of that unit.

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