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 RECIP.NAME RECIPIENT AFFILIATION
 FAULKENBERRY,B. Region 5 (Post 820201)

SUBJECT: Submits followup request for discretionary enforcement to
 allow for continued plant operation w/isolation sys response
 time SRs of TS Table 3.3.2-3 not having been demonstrated
 for specific primary & secondary CI valves.

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October 2, 1993
G02-93-241

Docket No. 50-397

Mr. B. H. Faulkenberry
Regional Administrator
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane
Walnut Creek, CA 94596-5368

Dear Mr. Faulkenberry:

Subject: WNP-2, OPERATING LICENSE NPF-21
REQUEST FOR DISCRETIONARY ENFORCEMENT FOR TECHNICAL
SPECIFICATION 3/4.3.2, ISOLATION ACTUATION
INSTRUMENTATION

- References:
1. Letter, GO2-91-159, JW Baker (SS) to NRC dated August 29, 1991, "Licensee Event Report No 91-013-02"
 2. Letter, GO2-93-202, JV Parrish (SS) to NRC dated August 6, 1993, "Licensee Event Report No 93-010-04"
 3. General Electric Report NEDC-32013P, "System Analysis for Elimination of Selected Response time Testing Requirements," dated March 1992 (proprietary)

This is a followup written request for discretionary enforcement regarding compliance to the required actions of Technical Specification 3.3.2, Table 3.3.2-3, Items 1.a.2, 1.b, 2.a, 2.b, and 2.c (affecting Isolation Valve Groups 3 and 4 as identified in Technical Specification Table 3.6.3-1). On October 1, 1993, the NRC orally provided discretionary enforcement that allowed for continued plant operation with surveillance requirements of these items not having been demonstrated.

This condition was identified as a result of an ongoing Technical Specification Surveillance Improvement Project (TSSIP) as discussed further in this request. It should be noted that, because the TSSIP is an in-depth technical review of the surveillance procedures to ensure they

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meet the Technical Specification surveillance requirements, other conditions of noncompliance with the WNP-2 Technical Specifications may be identified in the future.

Technical Specification to be Violated and Need for Prompt Action

Discretionary enforcement is being formally requested to allow for continued plant operation with the ISOLATION SYSTEM RESPONSE TIME surveillance requirements of Technical Specification Table 3.3.2-3 not having been demonstrated for specific primary and secondary containment isolation valves. With this surveillance requirement not satisfied, Technical Specification 4.0.3 was entered at 9:00 a.m. PDT on October 1, 1993. Enforcement discretion was granted orally on October 1, 1993 at 3:40 p.m. PDT. Without this action, the plant would have been required to enter ACTION STATEMENTS 20 and 25 of TABLE 3.3.2-1 at 9:00 a.m. PDT on October 2, 1993 and be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours. This followup written request is provided to the NRC to confirm the information it relied upon in arriving at its decision.

The written enforcement discretion is requested to extend until an emergency Technical Specification change can be processed as discussed below.

Description of Condition

On October 1, 1993, a condition of noncompliance with the WNP-2 Technical Specifications was identified as part of the Technical Specification Surveillance Improvement Project. This two-year project was recommended by a Supply System Quality Action Team formed as a corrective action of LER 91-013-02 (Reference 1). The Technical Specification Surveillance Improvement Project revises and broadens the scope of the Surveillance Procedure Verification Program completed in May 1991. Additional details of this program and previous findings are provided in LER 93-010-04 (Reference 2).

During the performance of the Technical Specification Surveillance Improvement Project review for compliance with the requirements associated with Technical Specification Surveillance 4.3.2.3 and Table 4.3.2.1-1, it was noted that portions of the automatic isolation actuation logic are not response time tested. The specific components identified as not response time tested are the final actuation electro-mechanical relays for a portion of isolation groups 3 and 4 (these relays do not actuate other group isolations) which are actuated in turn from the Reactor Low Water Level 2, High Drywell Pressure, or Reactor Building Vent Exhaust Plenum High Radiation relays (see attached figure). Refer to Technical Specification Table 3.6.3-1 for containment isolation group designations. The existing response time testing procedures measure the system response time from the sensed parameter through two (out of a total of nine in two

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channels and out of a total of ten in the other two channels) relays per channel at the appropriate level of the system logic per division. In each case, these two relays are parallel with, and of the same manufacturer and model type as the untested relays in each channel.

Compensatory Measures

The relays are located in cabinets in the Main Control Room where they are under control of the Shift Manager. This limits access to the cabinets thereby making the relays less susceptible to inadvertent damage or unobserved degradation.

There is no identified mechanism for significant degradation of the relay dropout time. As discussed below, response time testing of instrument strings using the model types of relays involved has confirmed the response time reliability of the relays in question. The Supply System is aware of Information Notice 92-05 pertaining to potential ABB RXMH-2 relay coil insulation breakdown concerns. However, this notice was reviewed as part of the Supply System Operating Experience Review Program and it was determined that no relays containing the manufacturing defect had been purchased. Furthermore, searches of the Nuclear Plant Reliability Data System and of Supply System maintenance history have not identified any other generic concerns.

Based upon the above, compensatory measures are not required.

Safety Basis for the Request

The Supply System has evaluated the relay design and its application at WNP-2 and has concluded that the testing performed, and the industry failure data on the actuation logic relays, is adequate to assure they will perform their intended safety function. Response Time Testing of these relays would not provide significant additional assurance that the relays would perform their intended safety function.

The need to perform response time testing is discussed in the plant Technical Specification Bases, which state:

"Except for the MSIVs, the safety analysis does not address individual sensor response times or the response times of the logic systems to which the sensors are connected.... It follows that checking the valve speeds and the 13-second time for emergency power establishment will establish the response time for the isolation functions. However, to enhance overall system reliability and to monitor instrument channel response time trends, the isolation actuation instrumentation

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response time shall be measured and recorded as a part of the ISOLATION SYSTEM RESPONSE TIME."

Existing plant procedures in place that provide assurance that these relays will perform their required function include the following:

LOGIC SYSTEM FUNCTIONAL TEST (LSFT)-

This test is performed each annual refueling outage. The LSFT provides testing of the entire instrumentation and relay logic string from the sensor through the actuated component. The LSFTs provide periodic assurance that each of the relays will deenergize and contacts properly close as required to perform their safety function through the actuated components.

PARTIAL RESPONSE TIME TESTING OF PARALLEL RELAYS-

Existing response time testing procedures measure the system response time from the sensed parameter through two (out of a total of nine in two channels and out a total of ten in the other two channels) relays per channel at the appropriate level of the system logic per division. These two relays are in parallel with the untested relays in each channel and are the same model number (RXMH-2) from the same manufacturer (ASEA/COMBIFLEX) and are located in a similar manner in the same cabinets as the relays for that division which are not response time tested. The Supply System believes that the response time testing results (approximately 110 milliseconds dropout time) of the two relays, which are currently being tested, are representative of those which would be obtained from the testing of the untested relays. This provides assurance that the relays in each channel which are not response time tested will perform their required function within the Technical Specification limit.

CHANNEL FUNCTIONAL TEST (CFT)-

This test verifies the correct function of the logic channel to these relays. A quarterly CFT verifies correct function of a logic channel by actuating half trip annunciators. The CFT does not test individual relays.

The affected relays, which have no time-delay feature, are electro-mechanical plunger-type with no dash pot or other dampening of the armature. Degradation for this type of relay is typically evidenced by failure to function, rather than degraded response times. Previous Supply System qualification tests performed on relays of the same manufacturer and model type have found dropout times to be approximately 110 milliseconds. There was no significant (less than 13

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milliseconds) change in response time after equivalent thermal aging to 10 years and 27,000 actuation cycles. Response time testing for the tested in-plant relays (discussed above) has shown dropout times of approximately 110 milliseconds, which is consistent with the qualification test data. In addition, a review of industry data, discussions with the manufacturer, and WNP-2's own experience confirms the failure to function as the expected failure mode for these relays.

Response time testing is performed for each of the affected relay logic strings containing the untested relays. Response time testing is performed on the sensing device and actuated device portion of the actual logic strings. The parallel relays are the only actuating components in the logic circuits which are not tested. Thus, the response time of each logic circuit with the untested relays should behave consistent with the measured response times of the tested logic circuits with similar relays.

Based on the above, the Supply System believes that granting the requested discretionary enforcement will not represent a significant safety issue. This is based on the observed failure modes of these relays, the scope of testing currently performed, the results of that testing, and the limited added assurance provided by response time testing in evaluating the ability of these relays to perform their safety functions.

Justification for the Period of Applicability

The relays and associated circuitry are located within two enclosures in the main control room. These cabinets contain a number of circuits providing isolation, emergency system actuation and electrical load shedding of non-safety related plant equipment. The circuitry is "deenergized-to-actuate". The implementation of these tests at power would require entering cabinets that are very restrictive and difficult to work within. This activity would require many repeated connections within these enclosures. The possibility of inadvertently shorting or grounding of leads and the possibility of mechanically agitating the relays exists. As a result, this could result in actuation or disabling of one or more key emergency systems and loss of normally operating plant equipment leading to plant shutdown, further challenging plant systems and equipment.

Separately, the Supply System has submitted a request for amendment to the Technical Specifications under emergency conditions to resolve this concern. It requests temporary relief from Technical Specification surveillance 4.3.2.3 with respect to response time testing of the relays associated with Reactor Low Water Level 2, High Drywell Pressure, or Reactor Building Vent Exhaust Plenum High Radiation until the next cold shutdown.

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Safety Significance

The Supply System has evaluated this request for discretionary enforcement to defer consideration of response time testing for Groups 3 and 4 as part of system OPERABILITY until the first Cold Shutdown condition no later than startup from the Spring 1994 Refueling Outage. The Supply System has determined that the granting of this request will not represent a significant hazards consideration because it will not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated. The relays are accident mitigating features and are not considered in the initiating sequences for any accidents previously evaluated. The LSFTs performed to date have demonstrated functionality of the relays, there is no observed failure mode that has caused deterioration of the dropout time of these relays, and the dropout time of the relays should be the same as the response time tested relays. Thus, the relays and logic strings will perform as designed. Therefore, approval of the request will not result in a significant increase in the probability or consequences of an accident.
- 2) Create the possibility of a new or different kind of accident from any accident previously evaluated. No new modes of operation of any equipment, system configuration or initial conditions result from the lack of response time testing of the relays. Granting of the request will not affect initial conditions or introduce new system configurations and, thus, will not create the possibility of a new or different kind of accident.
- 3) Involve a significant reduction in a margin of safety. As discussed above, the LSFTs performed to date have demonstrated functionality of the relays, there is no observed failure mode that has caused deterioration of the dropout time of these relays, and the dropout time of the relays should be the same as the response time tested relays. With no identified mechanism for increase in the relay dropout time, the design basis for primary and secondary containment isolation is maintained and there is no significant increase in a radiological release from primary or secondary containment .

Because the logic strings are considered to be capable of performing their safety function within the response times listed in the Technical Specifications, granting of this request does not represent a significant hazards consideration.

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Environmental Considerations

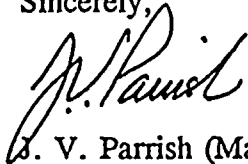
As discussed above, the Supply System concludes that this request does not involve a significant hazards consideration, nor is there a potential for a significant change in the types or significant increase in the amount of any effluents that may be released offsite, nor does the request involve a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(C)(9) and, therefore, per 10 CFR 51.22(b), an environmental assessment of this change is not required.

Plant Operating Committee Approval

The oral request for discretionary enforcement discussed above was approved by the Plant Operating Committee on October 1, 1993. This written request was approved by the WNP-2 Plant Operating Committee on October 2, 1993.

Upon any notification of termination of the exercise of enforcement discretion, the Supply System will take the action required by the Technical Specification.

Sincerely,



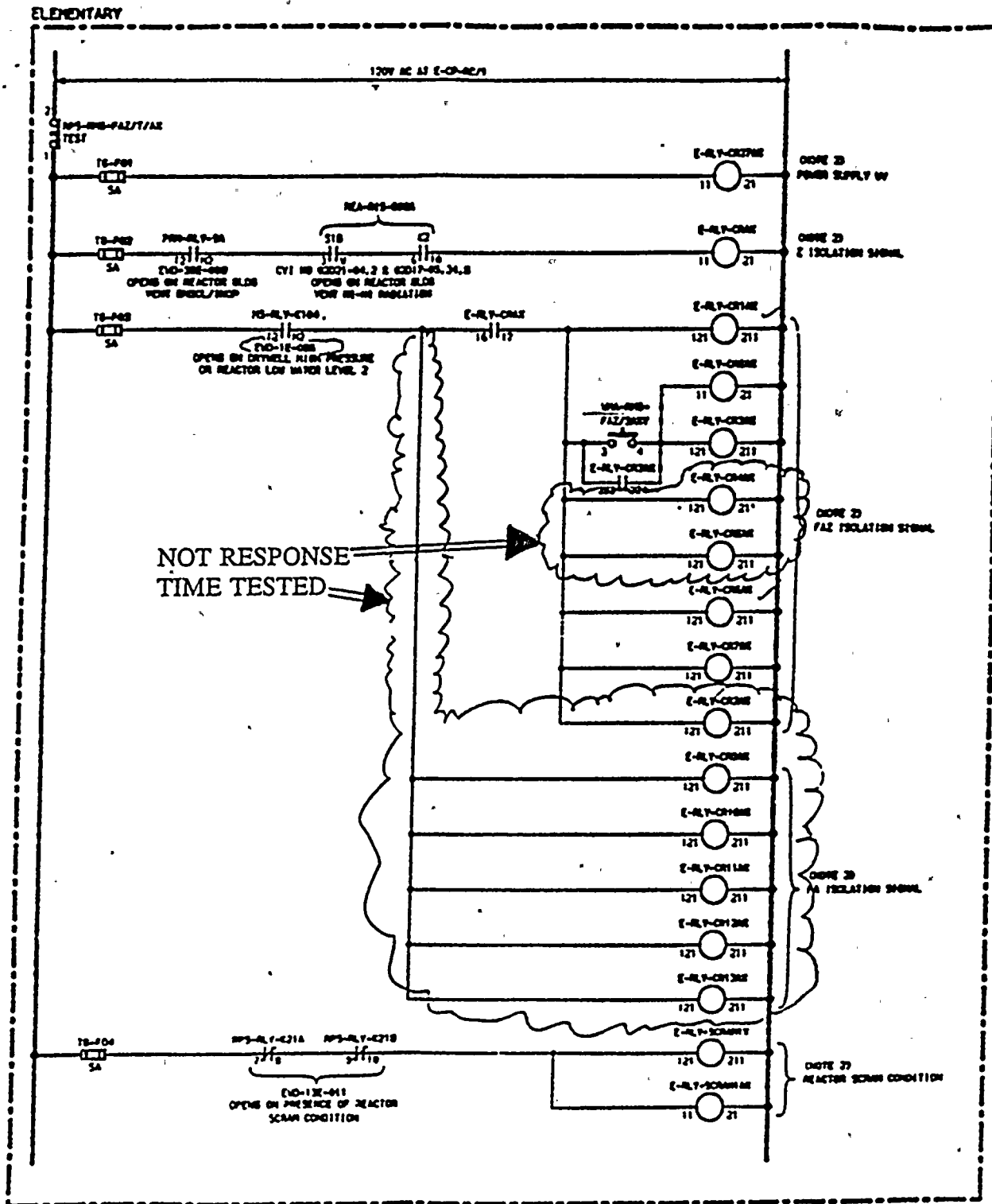
J. V. Parrish (Mail Drop 1023)
Assistant Managing Director, Operations

AGH/ah

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EXCERPT FROM DRAWING EWD-108E-001

"MISC EQPT SYS RELAY CABINET E-CP-RC/1 ISOLATION CONTROL RELAYS"

ATTACHMENT