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 RECIP. NAME: SCHWENCER, A. RECIPIENT AFFILIATION: Licensing Branch 2

SUBJECT: Forwards supplemental info re equipment Justifications 1,3,4
 & 5 - CIA programmer & associated equipment. Equipment
 qualified for LOCA accident conditions & will perform safety
 function to mitigate accident condition.

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 TITLE: OR/Licensing Submittal: Equipment Qualification

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TITLE: (Optional) Equipment Identification
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Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

December 13, 1983
G02-83-1158

Docket No. 50-397

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Schwencer:

Subject: NUCLEAR PROJECT NO. 2
JUSTIFICATION FOR INTERIM OPERATION #1,
3, 4, and 5 - CIA PROGRAMMER AND ASSOCIATED
EQUIPMENT

References: a) Letter, G02-83-1089, G. C. Sorensen (SS) to A.
Schwencer (NRC), "Valve Nitrogen Supply", dated
November 23, 1983
b) Letter, G02-83-842, G. C. Sorensen (SS) to A.
Schwencer (NRC), "Environmental Qualification
Report for Safety Related Equipment, September
1983", dated September 16, 1983
c) Letter, G02-83-1139, G. C. Sorensen (SS) to A.
Schwencer (NRC), "Justification for Interim
Operation #1 CIA Programmer", dated
December 12, 1983

In response to your staff's request for additional information and conclusions regarding the subject equipment, please find attached a discussion of equipment features and our conclusions regarding equipment qualification.

The equipment is qualified for LOCA accident conditions. We confidently conclude that the equipment can be expected to perform its safety function if it is needed to mitigate an accident condition. We hope this supplemental discussion will assist you in reaching the same conclusion.

Very truly yours,



G. C. Sorensen, Manager
Regulatory Programs

KRW/tmh
Attachment

cc: R Auluck - NRC
WS Chin - BPA
AD Toth - NRC Site

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SUPPLEMENTAL INFORMATION ON EQUIPMENT JUSTIFICATION #1, 3, 4, & 5

EPN: CIA-PROG-1A, CIA-RLY-21A, CIA-RLY-22A, CIA-TDS-1A

Additional information has been obtained to further justify the programmer and associated equipment. This data is summarized below:

LOCA - During a LOCA, the equipment is exposed to a maximum of $T = 128^{\circ}\text{F}$, $\text{R. H.} = 65\%$ and the six-month integrated dose is 1.2×10^4 rad. Review of the materials of construction show that the equipment is not susceptible to these conditions. It should be noted that the programmer does not contain any integrated circuits.

The programmer and associated equipment is qualified for the 6 month LOCA conditions.

HELB - The worst case HELB conditions include a maximum $T = 180^{\circ}\text{F}$ and $\text{R. H.} = 100\%$. While steam test results are not currently available, the following data strongly indicates that the equipment will perform its required function:

- 1) The equipment is housed in non-ventilated NEMA-type 3, enclosures that are intended for outdoor use to protect the enclosed equipment. This provides protection from the short duration HELB temperatures and steam conditions, and the humidity effects associated with the HELB's.
- 2) The long-term humidity of Profile 21X is not a steam condition, but is due to hot water on the reactor building floor. $\text{R. H.} = 100\%$ is a conservative representation of this condition.

To confirm the capability of the relays (CIA-RLY-21A; CIA-RLY-22A; CIA-TDS-1A) to perform for 24 hours under a condition of 100% R.H, the Supply System committed to performing a test of these relays to the required humidity conditions by February 29, 1984.

- 3) The equipment would be accessible soon after a HELB for maintenance.
- 4) In any one HELB accident, either the A train listed or the B train programmer and its associated equipment would not be exposed to temperatures in excess of 128°F .

Additional information has also been obtained on operation of the ADS system. The charged accumulator tanks on the safety-relief valves are sized to operate each valve five times; instead of once as previously stated. This number of operations should be sufficient to depressurize the reactor without use of the CIA system for additional valve cycling.



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