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SUBJECT: Responds to NRC RAI dtd 970312, re second 10-yr inservice  
 insp program relief request RR-13.

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**SUSQUEHANNA STEAM ELECTRIC STATION  
RESPONSE TO REQUEST FOR INFORMATION  
ON RELIEF REQUEST RR-13 TO THE ISI  
PROGRAM FOR THE SECOND 10-YEAR INTERVAL  
PLA-4580**

Docket Nos. 50-387  
and 50-388

**FILE R41-2**

This letter is Pennsylvania Power & Light (PP&L) Company's response to NRC Request for Additional Information (RAI) dated March 12, 1997, relative to the Second 10-Year Inservice Inspection Program Relief Request RR-13.

**NRC Request #2.1:**

The Staff has determined that licensees must state the specific paragraph of the Regulation (10 CFR 50.55a) under which requests for relief are submitted and provide supporting justification. The Regulations provide that a licensee may propose an alternative to CFR or Code requirement in accordance with 10 CFR 50.551(a)(3)(i) or 10 CFR 50.55a(a)(3)(ii). Pursuant to 10 CFR 50.55a(a)(3)(i), the proposed alternative must be shown to provide an acceptable level of quality and safety, i.e., essentially, be equivalent to the original requirement in terms of quality and safety. For 10 CFR 50.55a(a)(3)(ii), the licensee must show that compliance with the original requirement results in a hardship or unusual difficulty without a compensating increase in the level of quality and safety. Examples of hardship and/or unusual difficulty include, but are not limited to, excessive radiation exposure, disassembly of components solely to provide access for examinations, and development of sophisticated tooling that would result in only minimal increases in examination coverage.

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A licensee may also submit a request for relief from ASME requirements. In accordance with 10 CFR 50.55a(g)(5)(iii), if a licensee determines that conformance with certain Code requirement is impractical for its facility, the licensee shall notify the Commission and submit, as specified in §50.4, information to support that determination. When a licensee determines that an inservice inspection requirement is impractical, e.g., the system would have to be redesigned or a component would have to be replaced to enable inspection, the licensee should cite 10 CFR 50.55a(g)(5)(iii). The NRC may, giving due consideration to the burden placed on the licensee, impose an alternative examination requirement.

Pennsylvania Power & Light Company should review the current submittal and provide the required reference to ensure that the proposed alternative or request for relief is evaluated in accordance with the appropriate criteria.

**PP&L Response:**

Relief Request 13 (RR-13) was submitted under paragraph 10 CFR 50.55a(a)(3)(i), a proposed alternative to Code requirements. Specifically, RR-13 requests relief from IWX 2420 relative to successive examinations. PP&L would like to move the examinations listed in RR-13 forward from their currently scheduled examination times to the Unit 2 8RIO. This move is being proposed to save personnel exposure associated with the implementation of Hydrogen Water Chemistry (HWC).

**NRC Request #2.2:**

In the licensee's revision, reference is made to component supports. However, the Table containing the list of components for the subject relief contains no Examination Category IWF components. Verify that all components for which the licensee seeks scheduling relief, are listed.

**PP&L Response:**

The referencing of Examination Category IWF was in error. The correct reference should be IWX-2420.

**NRC Request #2.3:**

Based on the review of the Table of components for which the licensee is requesting scheduling relief, the Staff is unable to correlate the refueling outage with the actual or future date(s) of the actual examinations. Provide the dates (by year and month) that correlate with the outages. Verify that no more than essentially ten years will elapse between examinations based on the proposed rescheduling of all Examination Category B-D areas. In addition, verify that the minimum percentage of examinations, as required by Table IWB-2412-1, Inspection Program B, will be satisfied for Examination Category B-D components.

**PP&L Response:**

PP&L has revised the Table of components to incorporate outage dates. The intent of the actions relative to this relief request were to move them forward in time. In no case will the time interval between examinations be longer than ten years. In addition, PP&L has calculated the percentages of examinations for Examination Category B-D based upon our proposed changes. The totals are as follows: 1st Period: 41%; 2nd period: 57%; and 3rd period: 100%. In all three periods minimum examination criteria will be met.

Component Identification/Description	Examination Category/Item Number	Outage Currently Scheduled for Examination During Second Interval/Period	Date Last Examination Performed	Outage Relief for Examination During the Second Interval/Period (Examinations will be performed in this outage if Relief is granted)
Vessel Vertical Weld BD	IWB-2500-1, B-A, B1.12	10RIO/2 <sup>nd</sup> (3/2000)*	4RIO/2 <sup>nd</sup> (3/91)	8RIO/1 <sup>st</sup> (3/97)
Vessel Vertical Weld BE	IWB-2500-1, B-A, B1.12	10RIO/2 <sup>nd</sup> (3/2000)*	4RIO/2 <sup>nd</sup> (3/91)	8RIO/1 <sup>st</sup> (3/97)
Vessel Vertical Weld BF	IWB-2500-1, B-A, B1.12	10RIO/2 <sup>nd</sup> (3/2000)*	5RIO/3 <sup>rd</sup> (9/92)	8RIO/1 <sup>st</sup> (3/97)
Vessel Vertical Weld BN	IWB-2500-1, B-A, B1.12	12RIO/2 <sup>nd</sup> (3/2003)*	6RIO/3 <sup>rd</sup> (3/94)	8RIO/1 <sup>st</sup> (3/97)
Vessel Circumferential Weld AB	IWB-2500-1, B-A, B1.11	10RIO/2 <sup>nd</sup> (3/2000)*	N/A	8RIO/1 <sup>st</sup> (3/97)
Vessel Circumferential Weld AC	IWB-2500-1, B-A, B1.11	10RIO/2 <sup>nd</sup> (3/2000)*	N/A	8RIO/1 <sup>st</sup> (3/97)
Nozzle N2J	IWB-2500-1, B-D, B3.90, B3.100	10RIO/2 <sup>nd</sup> (3/2000)*	4RIO/2 <sup>nd</sup> (3/91)	8RIO/1 <sup>st</sup> (3/97)
Nozzle N3A	IWB-2500-1, B-D, B3.90, B3.100	10RIO/2 <sup>nd</sup> (3/2000)*	4RIO/2 <sup>nd</sup> (3/91)	8RIO/1 <sup>st</sup> (3/97)
Nozzle N3B	IWB-2500-1, B-D, B3.90, B3.100	10RIO/2 <sup>nd</sup> (3/2000)*	4RIO/2 <sup>nd</sup> (3/91)	8RIO/1 <sup>st</sup> (3/97)
Nozzle N5A	IWB-2500-1, B-D, B3.90, B3.100	9RIO/2 <sup>nd</sup> (9/98)*	5RIO/3 <sup>rd</sup> (9/92)	8RIO/1 <sup>st</sup> (3/97)
Nozzle N5B	IWB-2500-1, B-D, B3.90, B3.100	9RIO/2 <sup>nd</sup> (9/98)*	5RIO/3 <sup>rd</sup> (9/92)	8RIO/1 <sup>st</sup> (3/97)

\* Note: Scheduling information is based upon our original schedule (submitted for the Second 10-Year Period) for fuel cycles which were 18 months in length. Starting with the 8RIO, the length of the fuel cycles will be 24 months. The schedule of subsequent refuel cycles will be revised after the 8RIO.



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**NRC Request #2.4:**

The licensee has referred to cost savings associated with the setup of the GE GERIS inspection system that examines welds from within the reactor vessel. This request also addresses rescheduling of nozzle examinations that are typically examined from the outside surface of the vessel. As such, the need to reschedule reactor pressure vessel shell welds and nozzle welds is unclear. Provide clarification for the scope of the new schedule. Describe the basis for the estimated 30 man-rem reduction by the rescheduling the subject examination areas.

**PP&L Response:**

The GE GERIS system is capable of examination of both the internal and external reactor pressure vessel. Examinations of the items listed above will be performed using the OD examination features of the GE GERIS system. The GE GERIS system has been used to perform these inspections on previous SSES outages.

The basis for the 30 man-rem reduction is based upon estimated dose received by personnel due to the implementation of HWC should this request not be granted.

**NRC Request #2.5:**

Provide the actual completion date of the Unit 2, augmented reactor pressure vessel examinations required by the Code of Federal Regulation, 10 CFR 50.55a(g)(6)(ii)(A), effective September 8, 1992. In a previous request for relief associated with reactor pressure vessel shell weld examination (Reference 2RR-21), the licensee stated that established coverage from the ID would be approximately 80% to 85%. In addition, the licensee stated that ultrasonic examination from the ID significantly impacts refuel floor activities and resources with no commensurate increase in examination coverage or plant safety. The licensee determined that actual coverage from the OD surface is 96% total coverage. The Code requires that examinations be performed to the extent practical. As such, licensees may need to augment automated examination with manual examinations. Clarify the licensee's proposed examination from the RPV ID with the GE GERIS inspection system when it was previously determined that coverages could be maximized for the OD. (Noted: Request for Relief 2RR-21 was found acceptable based on the maximized coverage obtained from the OD.)

**PP&L Response:**

Per the requirements of 10 CFR 50.55a(g)(6)(ii)(A), dated 9/8/92, PP&L completed its augmented examinations of the Reactor Vessel Shell Welds during the third interval of the first ten-year period. Examination of the components listed above will all be performed from the vessel OD. Examinations will be completed in accordance with approved Relief Request 2RR-21 and the approved PP&L ISI Program.

If you have any questions, please contact Mr. C. T. Coddington at (610) 774-7531.

Very truly yours,



R. G. Byram

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