



Duquesne Light

Nuclear Division
P.O. Box 4
Shippingport, PA 15077-0004

Telephone (412) 456-6090

May 17, 1983

Director of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Attn: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
Washington, DC 20555

Reference: Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, License No. DPR-66
RHR Heat Exchanger Nozzle Relief Request

Gentlemen:

Enclosed are:

1. Three (3) originals and thirty-seven (37) copies of an Application requesting relief from the Inservice Inspection requirements (of Item Cl.2, Examination Category C-B) for the volumetric examination of the Residual Heat Removal (RHR) Heat Exchanger Nozzle to Vessel Welds.
2. Forty (40) copies of Attachment A which sets forth a discussion of the relief request, a basis for relief from Code requirements and suggested examination requirements for the RHR nozzles.

The RHR heat exchangers are to be disassembled this outage (third refueling). The Technical Specification Amendment No. 22 Safety Evaluation requires that in the event the heat exchangers are disassembled, the Code required examination shall be performed.

In lieu of the volumetric examination, we are proposing alternate examination requirements to be performed once per forty months:

1. Visually examine the nozzle reinforcement ring area (including the telltale hole) for evidence of leakage and degradation, and
2. Perform a surface examination of the reinforcement ring weld surface.

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Beaver Valley Power Station, Unit No. 1
Docket No. 50-324, License No. DPR-66
RER Heat Exchanger Nozzle Relief Request
Page 2

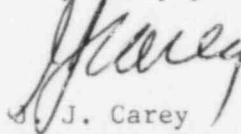
This proposed change to our Inservice Inspection program will not remove or relax any existing requirement related to the probability or consequences of accidents previously considered and does not involve a significant hazards consideration.

The third refueling outage is expected to begin in June 1983, in order that we may modify our refueling schedule to reflect these changes, we would appreciate your response to this request by June 11, 1983.

It is our understanding that similar requests have been granted for the subject heat exchanges at Conn. Yankee and Farley, Unit No. 1.

We have determined this to be a Class III request and a check for \$4,000.00 will be submitted under separate cover in accordance with 10 CFR 170.22.

Very truly yours,



J. J. Carey
Vice President, Nuclear

cc: Mr. Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of Environmental Resources
P. O. Box 2063
Harrisburg, Pennsylvania 17120

Mr. W. M. Troskoski, Resident Inspector
U. S. Nuclear Regulatory Commission
Beaver Valley Power Station
Shippingport, PA 15077

Mr. Peter Tam, Project Manager
U. S. Nuclear Regulatory Commission
Phillips Building
Washington, DC 20555
- Mail Stop 438 -

U. S. Nuclear Regulatory Commission
c/o Document Management Branch
Washington, DC 20555

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
Duquesne Light Company) Docket No. 50-334
(Beaver Valley Power Station, Unit No. 1))

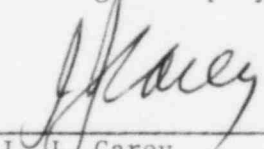
APPLICATION FOR RELIEF OF
INSERVICE INSPECTION REQUIREMENTS

Pursuant to Section 50.90 of the regulations of the U. S. Nuclear Regulatory Commission (the "Commission"), Duquesne Light Company ("DLC"), holder of Provisional Operating License No. DPR-66, hereby requests relief from the Inservice Inspection requirements (of Item Cl.2, Examination Category C-B) for the volumetric examination of the RHR Heat Exchanger Nozzle to Vessel Welds.

The proposed relief request is set forth in Attachment A to this Application. The proposed change does not involve a significant change in the types or a significant increase in the amounts of effluents or any change in the authorized power level of the facility. The change involves a single safety issue, relief from the Inservice Inspection requirements (of Item Cl.2, Examination Category C-B) for the volumetric examination of the RHR Heat Exchanger Nozzle to Vessel Welds and is in accordance with 10 CFR 170.22.

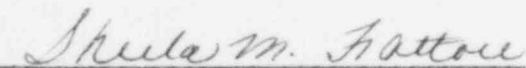
WHEREFORE, Applicant respectfully requests that the Inservice Inspection requirements to Provisional Operating License No. DPR-66 be amended in the form attached hereto as Attachment A.

Duquesne Light Company

By 
J. J. Carey
Vice President, Nuclear

Subscribed and sworn to before me

on this *17* day of *May*, *1983*



SHEILA M. FATTORE, NOTARY PUBLIC
SHIPPINGPORT BORO. BEAVER COUNTY
MY COMMISSION EXPIRES SEPT. 16, 1985
Member, Pennsylvania Association of Notaries

ATTACHMENT A

RHR Nozzle Relief Request

Request relief from volumetric examination of nozzle to vessel welds on the residual heat exchangers. (Item Cl.2, Examination Category C-B)

Code Requirement

Volumetric examination of 100% of the nozzle to vessel attachment weld over the service lifetime of the component.

Basis for Requesting Relief

The residual heat removal heat exchanger nozzle to vessel weld is covered by a reinforcement ring and is not accessible for examination as required by IWC-2600.

Amendment #22 Relief Inspection Requirements

The nozzle and reinforcement ring areas are to be visually inspected during the inspection period. In the event the residual heat removal heat exchanger is disassembled for maintenance and the welds are accessible for examination from the inside surface, the Code required examination shall be performed.

Relief request from the volumetric examination required by Amendment #22 from the inside surface upon disassembly.

Basis for Requesting Relief

The amount of associated effort and supporting work for an inside surface ultrasonic examination of the nozzle to vessel weld is not justified for the following reasons:

- a. An anticipated high radiation work environment.
- b. The weld geometry will likely yield only a partial examination (see Attachments).
- c. The examination surface area has not been prepared for ultrasonic examination.
- d. Surface preparation via grinding and/or polishing would significantly increase the man-rem exposure and create a severe problem in maintaining the system cleanliness requirements.
- e. The material to be examined is austenitic stainless steel. Austenitic materials display anisotropic properties and are inhomogeneous in nature leading to the anomalous behavior of the sound beam as it passes through the material. Viable ultrasonic examination procedures of this material have not been developed to the satisfaction of the ASME Code Committees.

RHR Nozzle Relief Request

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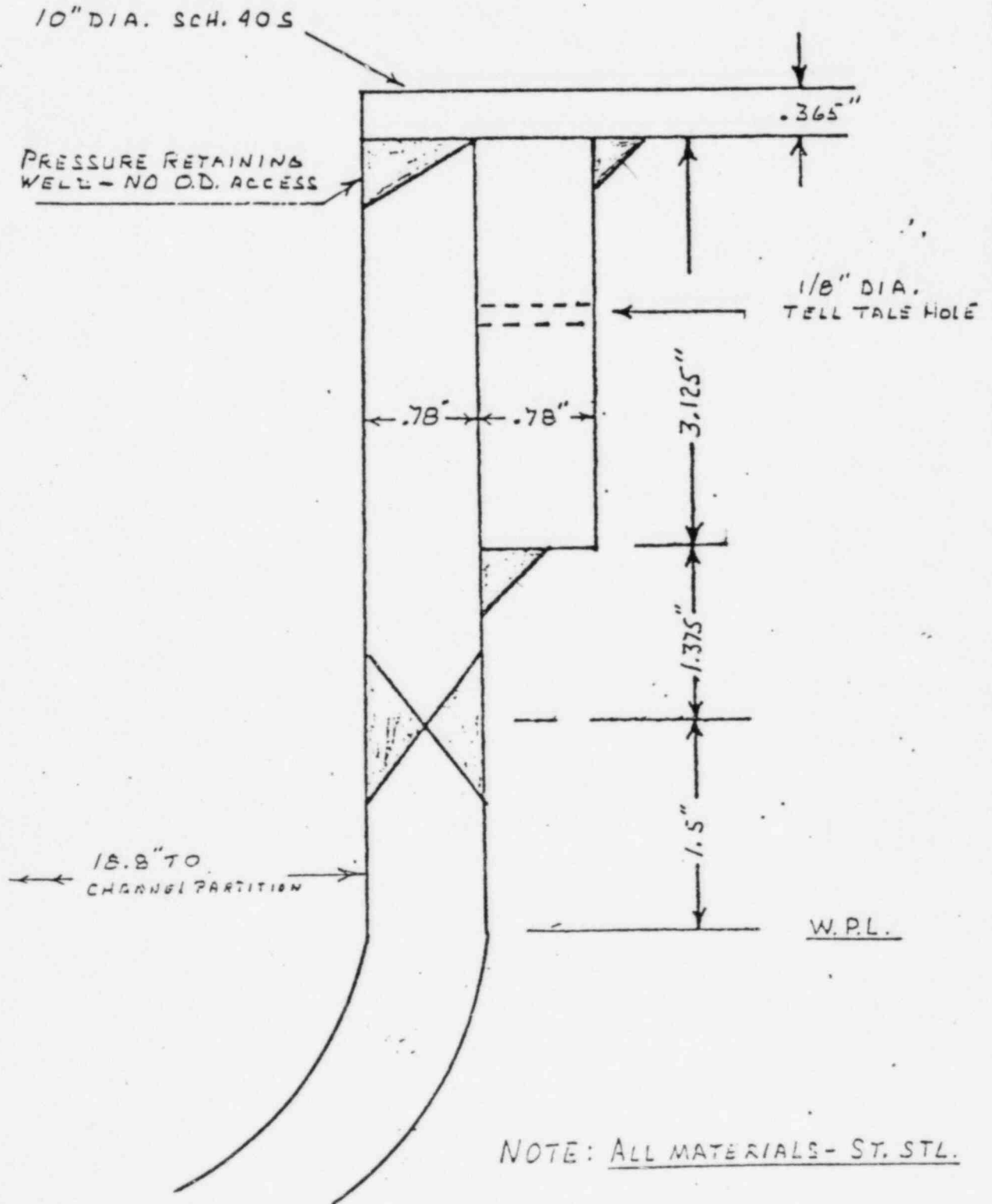
- f. The NDE Examiner would have to perform the examination under a suspended load (the heat exchanger shell and tube bundle) or under a cribbed load. Working under a suspended load presents serious safety concerns to personnel and equipment.

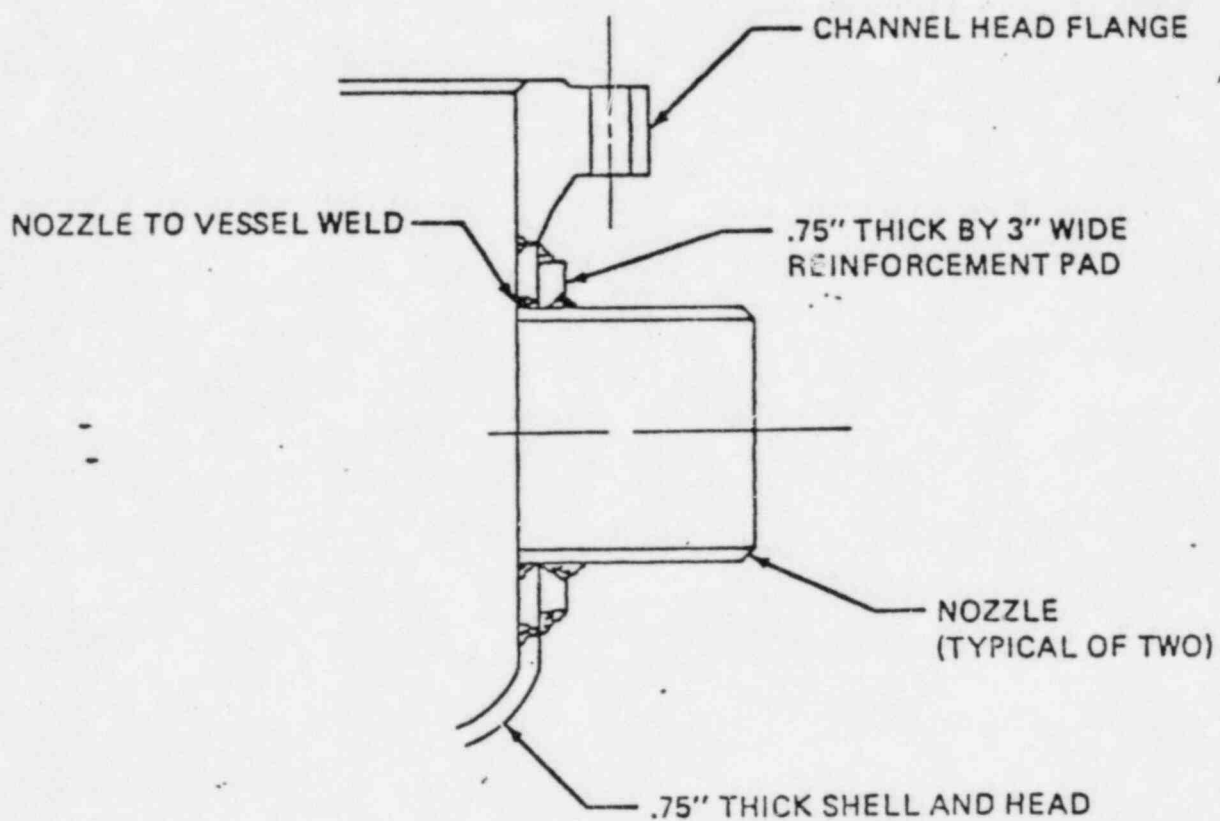
Suggested Examination Requirements for RHR Nozzles

Visually examine the nozzle reinforcement ring area (including the telltale hole) for evidence of leakage and degradation once each Code period (40 months). In addition, perform a surface examination of the reinforcement ring weld surfaces once during each Code period (40 months).

ATTACHMENT 1

RESIDUAL HEAT EXCHANGERS NOZZLE TO SHELL ASSEMBLY- DESIGN





Note: All materials and welds are stainless steel.

RESIDUAL HEAT REMOVAL HEAT EXCHANGER NOZZLE TO
VESSEL CONFIGURATION

Figure - C1.2