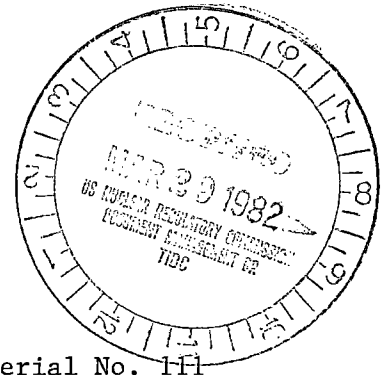


VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261



R. H. LEASBURG
VICE PRESIDENT
NUCLEAR OPERATIONS

March 25, 1982

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 111
NO/RMT:acm
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

This letter is provided in response to your request for additional information dated February 18, 1982 relative to Inservice Inspection Program for Surry Power Station. Enclosures 1 and 2 of this letter provide the information requested.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'R. H. Leasburg'.

R. H. Leasburg

Enclosures:

1. Inservice Inspection Program - Surry Unit One
2. Inservice Inspection Program - Surry Unit Two
3. Figure 1

A001
3
1/1

INSERVICE INSPECTION PROGRAM

SURRY UNIT ONE

1. Questions A, B, C.

In review of radiation surveys conducted by the site Health Physics group, the regenerative heat exchanger is an area of fluctuating radiation levels. When the unit is in operation, there are several points that the levels are equal to or greater than 20 Rem. During the steam generator replacement project and during refueling outages these levels dropped to 6-7 Rem on contact.

Even if these levels were to drop in half through flushing and shielding, the time needed to erect scaffolding, remove insulation, cleaning, perform examinations and restore the installation could take a total of 8 to 10 hours for the examinations of 1/2" long portions of twelve welds. It is still felt that personnel exposure to complete these exams is excessive particularly when the examination is to establish the continued integrity of the vessel in a system in which all the piping welds are exempt from examination by IWC-1220 (D).

Question D.

As shown on Surry Unit One flow diagrams 11448-FM-103A and 11448-FM-105C, there are two check valves 1312A and 1310 on line 3" CH-1. Based on ASME Boiler and Pressure Vessel Code Section XI 1974 Edition up to and including summer of 1975 addenda section IWB 1220 paragraph (2), the second check valve in a series constitutes the end of the Class 1 boundary.

2. For Item B4.5 the total number of welds where ultrasonic examination cannot be performed on 100% of the weld and heat affected zone and where surface examination will be done as a supplement is 14 or 3.5%. For item B4.5 there are also 12 longitudinal electroslag welds in the Reactor Coolant Pipe. These welds will be done surface only due to thickness and material. For B4.6 the total is 5 or 100% of welds in this category.

3. For Class 2 circumferential welds item C2.1 the total number of welds where ultrasonic examination cannot be performed on 100% of the weld and heat affected zone and where surface examination will be done as a supplement is determined on an individual weld basis when examined since these welds were not examined during preservice inspection. However, this relief will not be required when Surry Unit #1 updates to the later code Edition.

INSERVICE INSPECTION PROGRAM

SURRY UNIT TWO

1. Questions A, B, C.

In review of radiation surveys conducted by the site Health Physics group, the regenerative heat exchanger is an area of fluctuating radiation levels. When the unit is in operation, there are several points that the levels are equal to or greater than 20 Rem. During the steam generator replacement project and during refueling outages these levels dropped to 6-7 Rem on contact.

Even if these levels were to drop in half through flushing and shielding, the time needed to erect scaffolding, remove insulation, cleaning, perform examinations and restore the installation could take a total of 8 to 10 hours for the examinations of 1/2" long portions of twelve welds. It is still felt that personnel exposure to complete these exams is excessive particularly when the examination is to establish the continued integrity of the vessel in a system in which all the piping welds are exempt from examination by IWC-1220 (D).

Question D.

Any examination method, liquid penetrant, ultrasonic or radiography would still result in extended exposure if examining 1/2" of each weld versus 100% of one weld.

The regenerative heat exchanger is a Class 1 component for Surry Unit Two based on flow diagram 11548-FM-103 and 1154-FM-105C which shows line 3" CH-301 has a check valve 2312A, then a normally open valve 2310 then through the regenerative heat exchanger to check valve 2312B. Based on ASME Boiler and Pressure Vessel Code Section XI 1974 Edition up to and including summer of 1975 addenda section IWB-1220 paragraph (2) the second check valve in series constitutes the end of the Class I boundary.

2. Attached is a sketch of the joint configuration of the nozzle to vessel weld. Due to configuration and geometry an ultrasonic examination is impractical.

3. For Item B4.5 the total number of welds where ultrasonic examination cannot be performed on 100% of the weld and heat affected zone and where surface examination will be done as a supplement is 10 or 2.5%. For item B4.5 there are also 12 longitudinal electroslag weld in the Reactor Coolant pipe. These welds will be done surface only due to thickness and material. For item B4.6 the total is 5 or 100% of welds in this category.

4. For Class 2 circumferential welds item C2.1 the total number of welds where ultrasonic examination cannot be performed on 100% of the weld and heat affected zone and where surface examination will be done as a supplement is determined on an individual weld basis when examined since these welds were not examined during preservice inspection. However, this relief will not be required when Surry Unit #2 updates to the later code Edition.

FIGURE ONE

BRANCH NOZZLE CONNECTION WELD

CENTERLINE
NOZZLE

NOZZLE FORGING

REGENERATIVE HEAT EXCHANGER

