



August 28, 1995

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Unit 2,
Core Shroud Examination Final Results
NRC Docket No. 50-237

- References:
1. NRC Generic Letter 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in Boiling Water Reactors".
 2. BWRVIP document GENE-523-113-0894, BWR Core Shroud Inspection and Evaluation Guidelines, dated September 1994.
 3. BWRVIP Core Shroud NDE Uncertainty and Procedure Standard, dated November 21, 1994.
 4. J.L. Schrage (ComEd) to USNRC letter, Submittal of Core Shroud Inspection Plan for Dresden Unit 2, dated March 30, 1995.

The purpose of this letter is to provide the final results of the Dresden Station Unit 2 core shroud examinations. The examinations were performed in conjunction with the comprehensive shroud repair to assure that structural integrity of the core shroud is maintained. The examinations of the reactor core shroud were performed in accordance with ComEd's commitment to NRC Generic Letter 94-03 (Reference 4) and BWRVIP guidelines (References 2 and 3). The examinations were completed on August 18, 1995.

The examinations of the core shroud consisted of ultrasonic examination (UT) of the vertical shroud welds that could be accessed using the remote area scanner system and enhanced visual examination of the remaining design reliant welds and structures. The ultrasonic examinations were performed in accordance with the BWRVIP "Standards for Ultrasonic Examination of Core Shroud Welds" and the visual examinations were performed in accordance with the BWRVIP "Standards for Visual Inspections of Core Shrouds". Also, eddy current was successfully used as an aid in identifying the location of ring segment welds associated with the shroud head flange ring, the top guide support ring, and the core plate support ring.

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The following is a summary of the core shroud examination scope and results. Details of the specific areas examined and the results of the examinations are presented in the attached Table 1 and Figure 1.

- o The ultrasonic examination scope consisted of shroud vertical welds V14 through V19 (located in the beltline region between horizontal welds H3 and H5), and V28 (located between horizontal welds H6 and H7). Approximately 27 inches, or between 30% and 50% of the total length of each vertical weld, was examined. These examinations resulted in no reportable indications.
- o The enhanced visual examination scope consisted of the ring segment welds associated with the shroud head flange ring, top guide support ring, and core plate support ring; vertical welds V1, V2, V3, V26, and V27; the H8 and H9 horizontal welds at the shroud repair hardware locations; and the shroud repair hardware attachment sites at the shroud head flange ring and the jet pump support plate. These examinations resulted in no reportable indications in the area of interest.

However, circumferential cracking associated with the H3 and H5 welds was identified during performance of the ring segment weld examinations. The H3 and H5 welds were not part of the core shroud examination scope per the Reference 4 Inspection Plan, because the installed comprehensive shroud repair was designed to structurally replace horizontal shroud welds H1 through H7. Therefore, the observed cracking has no adverse impact on core shroud structural integrity. Details of the cracking observed in the H3 and H5 welds are provided below.

One circumferential crack indication approximately 2 inches long was identified in the core plate support ring, and significant circumferential cracking (approximately 60 inches, or 85% of the of the area examined) was identified in the top guide support ring. The crack indication in the core plate support ring is located on the OD surface and is associated with the lower heat affected zone (HAZ) of the horizontal H5 weld. The cracking in the top guide support ring is located on the ID surface and is predominantly associated with the upper HAZ of the horizontal H3 weld, although some minor cracking (less than 12 inches) was also identified in the shroud plate material associated with the lower HAZ of the H3 weld.

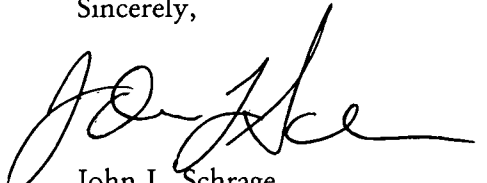
In summary, the examinations of the core shroud design reliant structures performed at Dresden Unit 2 per the Reference 4 Inspection Plan resulted in no indications of cracking in the areas of interest.

To the best of my knowledge and belief, the information contained in this document is true and correct. In some respects this document is not based on my personal knowledge, but on information furnished by other Commonwealth Edison employees, contractor employees, and/or consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

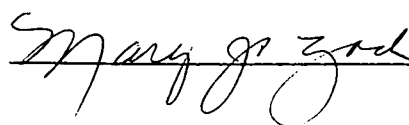
August 28, 1995

If there are any questions concerning this matter, or need for further clarification, please contact this office.

Sincerely,


John L. Schrage
Nuclear Licensing Administrator



 8/28/95

Attachment: Table 1 - Dresden Unit 2 Core Shroud Examination Summary
Figure 1 - Dresden Unit 2 Core Shroud Examination Roll Out

cc: H.B. Miller, Regional Administrator - RIII
J.F. Stang, Project Manager - NRR
M.N. Leach, Senior Resident Inspector - Dresden
Office of Nuclear Facility Safety - IDNS

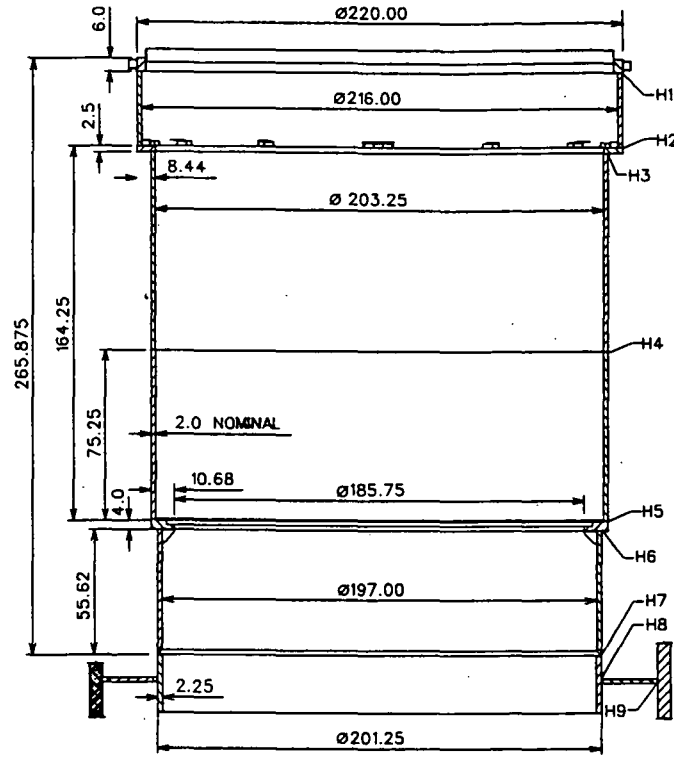
TABLE 1

DRESDEN UNIT 2 CORE SHROUD EXAMINATION SUMMARY

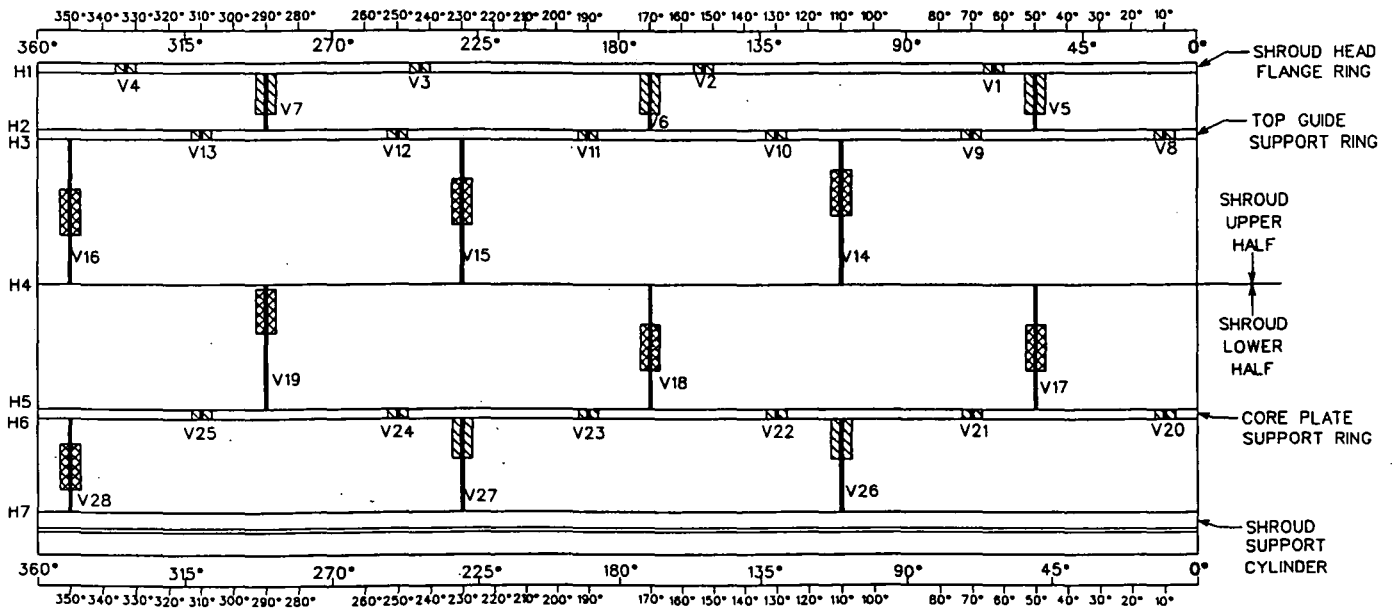
Component	Area Inspected	Inspection Results
Shroud Head Flange Ring Segment Welds: V1 Through V4	Enhanced visual examination of ≈ 12 " length of ring material encompassing each weld. Inspected OD, ID and Top of ring.	No Reportable Indications
Top Guide Support Ring Segment Welds: V8 Through V13	Enhanced visual examination of ≈ 12 " length of ring material encompassing each weld. Inspected OD, ID and Bottom of ring.	No Reportable Indications in Area of Interest
Core Plate Support Ring Segment Welds: V20 Through V25	Enhanced visual examination of ≈ 12 " length of ring material encompassing each weld. Inspected OD and Bottom of ring.	No Reportable Indications in Area of Interest
Vertical Welds: V14 Through V19 and V28	Ultrasonic examination of ≈ 27 ", or between 30% and 50% of each weld.	No Reportable Indications
Vertical Welds: V5, V6, V7, V26, and V27	Enhanced visual examination of ≈ 24 ", or between 43% and 72% of each weld from the OD surface. (ID surface was not accessible)	No Reportable Indications
Jet Pump Support Plate to Shroud Support Ring Weld H8	Enhanced visual examination of ≈ 12 " of weld in area of repair hardware attachments at 4 locations: 20°, 110°, 200°, and 290° Az	No Reportable Indications
Jet Pump Support Plate to RPV Weld H9	Enhanced visual examination of ≈ 12 " of weld in area of repair hardware attachments at 4 locations: 20°, 110°, 200°, and 290° Az	No Reportable Indications
Jet Pump Support Plate	Enhanced visual examination of repair hardware attachment areas both prior to and following EDM at 4 locations: 20°, 110°, 200°, and 290° Az	No Reportable Indications
Shroud Head Flange Ring	Enhanced visual examination of repair hardware attachment areas both prior to and following EDM at 4 locations: 20°, 110°, 200°, and 290° Az	No Reportable Indications

FIGURE 1



DRESDEN UNIT 2 CORE SHROUD EXAMINATION ROLL OUT



SHROUD SECTION VIEW



SHROUD OD SURFACE DEVELOPMENT

-  - DENOTES AREAS VISUALLY EXAMINED
-  - DENOTES AREAS ULTRASONICALLY EXAMINED