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Vice President - Nuclear
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December 17, 1996

Georgia Power
a subsidiary of
The Southern Company

Docket Nos. 55-321
50-366

HL-5286

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Edwin I. Hatch Nuclear Plant
Third 10-Year Interval Inservice Inspection Program
Request for Relief

Gentlemen:

In accordance with the requirements of 10 CFR 50.55a(g)(5)(iii) and (iv), Georgia Power Company (GPC) has reviewed the Plant Hatch Units 1 and 2, ASME Code, Section XI examination data recorded during the second 10-year inservice inspection interval (January 1, 1986 through December 31, 1995) to determine if compliance with Code requirements was impractical, and to determine if any additional relief from the Code requirements is necessary. As a result of the review, GPC has determined that it is necessary to add five additional relief requests to the current, Third 10-Year Interval, inservice inspection program. These relief requests (attached) address various examinations and are discussed below.

Relief Request RR-18 addresses nozzle-to-vessel limitations for Units 1 and 2. Please note that Relief Request 2.1.3 addressing these same nozzle-to-vessel limitations was issued during the second interval and approved by the NRC by Safety Evaluations dated September 29, 1986 and June 22, 1989. Comparisons of third interval Relief Request RR-18 and second interval Relief Request 2.1.3 indicates higher coverage during the second interval, however, this variance is essentially due to a more conservative manner of determining coverage, not an actual change in coverage. It should be noted that the coverage shown for each nozzle in RR-18 is generally a low estimate, while actual coverage may be higher. This is due to the fact that while all accessible areas were generally scanned by the examiners; coverage obtained from scanning on curved surfaces is difficult to quantify, and therefore was not included in RR-18. (Curved surface coverage was included in Relief Request 2.1.3). The inspection vendor has verified that the coverage shown in RR-18 is typical of coverage seen at other domestic BWRs.

A047

Additionally, Relief Request 2.1.3 reported nozzle inner radius exam coverage as 85 to 95%, with new estimates being in the 50 to 65% range for those nozzles manually examined and essentially 100% coverage for those nozzles examined with state-of-the art mechanized techniques. This is due to a more conservative manner in estimating three-dimensional volumetric coverage in a configuration involving curved surfaces. Additional relief is not being requested, at this time, for inner radius examinations since there is an ongoing effort being made to upgrade these examinations to the state-of-the-art mechanized techniques, when practical.

Relief Request RR-19 addresses limitations for Unit 1 RPV flange ligament examinations, while RR-20 addresses Units 1 and 2 RPV stabilizer bracket examinations. Relief Request RR-21 addresses limitations for the examination of the Units 1 and 2 RPV head-to-flange welds and RR-22 addresses limitations for the Unit 2 RHR pump nozzle examinations.

Should you have questions or concerns regarding this matter, please contact this office.

Sincerely,

J. T. Beckham, Jr.

IFL/eb

Attachments:
1. Request for Relief No. RR-18
2. Request for Relief No. RR-19
3. Request for Relief No. RR-20
4. Request for Relief No. RR-21
5. Request for Relief No. RR-22

cc: *Georgia Power Company*
Mr. H. L. Sumner, Nuclear Plant General Manager
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebneter, Regional Administrator
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

ATTACHMENT 1

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNITS 1 & 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-18

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNITS 1 & 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-18

I. System/Component for Which Relief is Requested: Twenty-eight Unit 1, ASME Class 1, Reactor Pressure Vessel nozzle-to-vessel welds and twenty-eight, Unit 2, nozzle-to-vessel welds.

Examination Category B-D, Item B3.90

Unit 1	Unit 2
N1A, B - Recirculation Outlet Nozzle	2N1A, B - Recirculation Outlet Nozzle
N2A-H, J-K - Recirculation Inlet Nozzle	2N2A-H, J-K - Recirculation Inlet Nozzle
N3A-D - Main Steam Nozzle	2N3A-D - Main Steam Nozzle
N4A-D - Feedwater Nozzle	2N4A-D - Feedwater Nozzle
N5A, B - Core Spray Nozzle	2N5A, B - Core Spray Nozzle
N6A, B - Head Spray Nozzle	2N6A, B - Head Spray Nozzle
N7 - Head Vent Nozzle	2N7 - Head Vent Nozzle
N8A, B - Jet Pump Instrument Nozzle	2N8A, B - Jet Pump Instrument Nozzle
N9 - CRD Inlet Nozzle	2N9 - CRD Inlet Nozzle

II. Code Requirement: ASME Code, Section XI, Table IWB-2500-1, Examination Category B-D, Item No. B3.90 requires that nozzle-to-vessel welds be volumetrically examined. Volumetric examinations shall meet the examination volume defined by Figures IWB-2500-7A and 7B. Additionally, Section XI, Article I-2000 requires that ultrasonic examinations of vessels greater than 2 in. thickness be conducted in accordance with ASME Code, Section V, Article 4. Article 4 requires two directional coverage when practical.

III. Code Requirement for Which Relief is Requested: Two directional coverage of the examination volume cannot be obtained on any of the listed nozzles. Additionally, limitations exist that preclude complete single-sided examination of the required examination volume.

IV. Basis for Relief: The curvature of the nozzles prohibits Code examinations of the nozzle-to-vessel welds from the nozzle side. When attempting to examine the welds from the nozzle side, the complex curvature of the nozzle mis-orients the sound beam such that proper coverage is not obtained; therefore, only one directional coverage from the vessel (or head) side is feasible.

One directional coverage from the vessel side is also limited since complete coverage would require scanning from the vessel side onto the weld crown, and then onto a portion of the nozzle. However, as addressed above, once the curvature of the nozzle is reached the sound beam is mis-oriented. In most cases, Unit 1 has barrel type nozzles with the weld located in the curved blend radius while Unit 2 has flange type nozzles with the weld located in the vessel shell area. Therefore, Unit 2 welds can generally be examined from the vessel shell area, from the weld crown, and possibly from a small portion of the nozzle, while the Unit 1 welds can generally be examined only from the vessel shell area. Examples of 45 and 60 degree scan coverage for a typical flange type nozzle are shown in Figures 21 and 22 while examples of 45 and 60 degree scan coverage for a typical barrel type nozzle are shown in Figures 23 and 24. Specific geometry and limitations for each nozzle are listed below.

It should be noted that the coverage shown for each nozzle is generally a low estimate, while actual coverage may be higher. This is due to the fact that all accessible areas were generally scanned by the examiners; however, for the purpose of defining coverage, results obtained from scanning on curved surfaces were not included. It should also be noted that these limitations are applicable to manual techniques or automated systems as currently performed by the inspection vendor. The inspection vendor has also verified that the coverage shown is typical of coverage seen at other domestic BWRs.

Unit 1

N1A, B - Recirculation Outlet Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located in the curved, blend radius of the nozzle; therefore, ultrasonic scanning can only be performed on the RPV vessel up to the point where the curvature begins. For this configuration, approximately 60% of the required examination volume is scanned from the one side. (See Figures 1 and 3).

N2A-H, J-K - Recirculation Inlet Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located in the curved, blend radius of the nozzle; therefore, ultrasonic scanning can only be performed on the RPV vessel up to the point where the curvature begins. For this configuration approximately 50% of the required examination volume for 95% of the weld length is scanned from the one side. The 5% limitation exists due to a welded insulation ring that is located just above the nozzles. (See Figures 1, 2, and 4).

N3A, B, C - Main Steam Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located in the curved, blend radius of the nozzle; therefore, ultrasonic scanning can only be performed on the RPV vessel up to the point where the curvature begins. For this configuration, approximately 40 to 50 % of the required examination volume is scanned from the one side. (See Figures 1 and 5).

N3D - Main Steam Nozzle-To-Vessel Welds - For this one nozzle, the geometry is similar to that of the main steam nozzles for Unit 2, in that, the weld is located such that ultrasonic scanning can be performed on the RPV vessel, on the weld, and on a small portion of the nozzle. For this configuration, approximately 75% of the required examination volume is scanned from the one side. Note: Even though there are differences (e.g., extent of cladding), Figure 10 which depicts the Unit 2 nozzles can also be used to adequately depict the geometry for this nozzle. (Also see Figure 1).

N4A-D - Feedwater Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located in the curved, blend radius of the nozzle; therefore, ultrasonic scanning can only be performed on the RPV vessel up to the point where the curvature begins. For this configuration, approximately 40 to 50% of the required examination volume is scanned from the one side. (See Figures 1 and 6).

N5A, B - Core Spray Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located in the curved, blend radius of the nozzle; therefore, ultrasonic scanning can only be performed on the RPV vessel up to the point where the curvature begins. For this configuration, approximately 40 to 50% of the required examination volume is scanned from the one side. (See Figures 1 and 7).

N6A, B and N7 - RPV Head Nozzles - These small nozzles located on the RPV head have a configuration such that coverage from one side is only approximately 40 to 50% for the N6A, B nozzles and 50% for the N7 nozzle. An evaluation of the configuration shows that these small nozzles have a very short radius. With this configuration, scanning can only be performed on the head and possibly a portion of the weld. (See Figures 1, 13 and 14).

N8A-B - Jet Pump Instrument Nozzles - These small nozzles have a configuration such that coverage from one side is in the range of 50 to 60%. An evaluation of the configuration shows that these small nozzles have a very sharp radius. With this configuration, scanning can only be performed on the shell and possibly a portion of the weld. (See Figures 1 and 15).

N9 - CRD Nozzle-To-Vessel - For this nozzle configuration, the weld is located in the curved blend radius, such that, ultrasonic scanning can only be performed on the RPV up to the point where the curvature begins. For this configuration, approximately 50 to 60% of the required examination volume is scanned from the one side. (See Figures 1 and 16).

Unit 2

2N1A, B - Recirculation Outlet Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located such that ultrasonic scanning can be performed on the RPV vessel, on the weld, and on a small portion of the nozzle. For this configuration, approximately 80% of the required examination volume is scanned from the one side. (See Figure 8)

2N2A-H, J-K - Recirculation Inlet Nozzle-To-Vessel Welds -. For this nozzle configuration, the weld is located such that ultrasonic scanning can be performed on the RPV vessel, on the weld, and on a small portion of the nozzle. For this configuration, approximately 75% of the required examination volume is scanned from the one side. (See Figure 9). (Note: The welded insulation ring is not present on Unit 2).

2N3A-D - Main Steam Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located such that ultrasonic scanning can be performed on the RPV vessel, on the weld, and on a small portion of the nozzle. For this configuration, approximately 75% of the required examination volume is scanned from the one side. (See Figure 10).

2N4A-D - Feedwater Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located such that ultrasonic scanning can be performed on the RPV vessel, on the weld, and on a small portion of the nozzle. For this configuration, approximately 80% of the required examination volume is scanned from the one side. (See Figure 11).

2N5A, B - Core Spray Nozzle-To-Vessel Welds - For this nozzle configuration, the weld is located such that ultrasonic scanning can be performed on the RPV vessel, on the weld, and on a small portion of the nozzle. For this configuration, approximately 80% of the required examination volume is scanned from the one side. (See Figure 12).

2N6A, B and 2N7 - RPV Head Nozzles - These small nozzles located on the RPV head have a configuration such that coverage from one side is only approximately 40 to 50% for the N6A, B nozzles and 50% for the 2N7 nozzle. An evaluation of the configuration shows that these small nozzles have a very short radius. With this configuration, scanning can only be performed on the head and possibly a portion of the weld. (See Figures 17 and 18).

2N8A, B - Jet Pump Instrument Nozzles - These small nozzles have a configuration such that coverage from one side is the range of 50 to 60%. An evaluation of the configuration shows that these small nozzles have a very sharp radius. With this configuration, scanning can only be performed on the shell and possibly a portion of the weld. (See Figure 19).

2**N9 - CRD Nozzle-To-Vessel -** For this nozzle configuration, the weld is located in the curved blend radius, such that, ultrasonic scanning can only be performed on the RPV up to the point where the curvature begins. For this configuration, approximately 50% of the required examination volume is scanned from the one side. (See Figure 20).

V. Alternate Examination: None.

VI. Justification for Granting Relief:: Cracking that initiates from the ID (thermally induced cracking, stress-corrosion cracking, etc.) is the primary concern for these welds. While coverage is limited due to the design of the nozzles, coverage (from at least one angle) is obtainable for the lower portion of the examination volume. Therefore, there is a reasonable degree of confidence that loss of structural integrity in these welds can be detected.

Various techniques have been evaluated such as using additional angles and bouncing the ultrasound off of the clad surface; however, none have proven to be of practical use. Denial of this relief request would cause an excessive burden upon Georgia Power Company because it has been demonstrated that it is impractical to meet the Code-required volume with presently-developed techniques. The volumetric examination of the lower portion of the examination volume will provide reasonable assurance that inservice flaws exceeding acceptance standards have not developed in the subject weld or that they will be detected and dispositioned prior to the return of the reactor vessel to service. Therefore, an acceptable level of quality and safety will be maintained and public health and safety will not be endangered by approving this relief request.

VII. Implementation Schedule: The relief request is applicable for the Third 10-Year Interval.

VIII. Relief Request Status: This relief request replaces second interval Relief Request 2.1.3. (Relief Request 2.1.3 was approved by an NRC SER dated 9/29/86, subsequently revised by Georgia Power Company, and then approved by a 6/22/89 NRC SER). This relief request updates coverage previously reported in Relief Request 2.1.3.

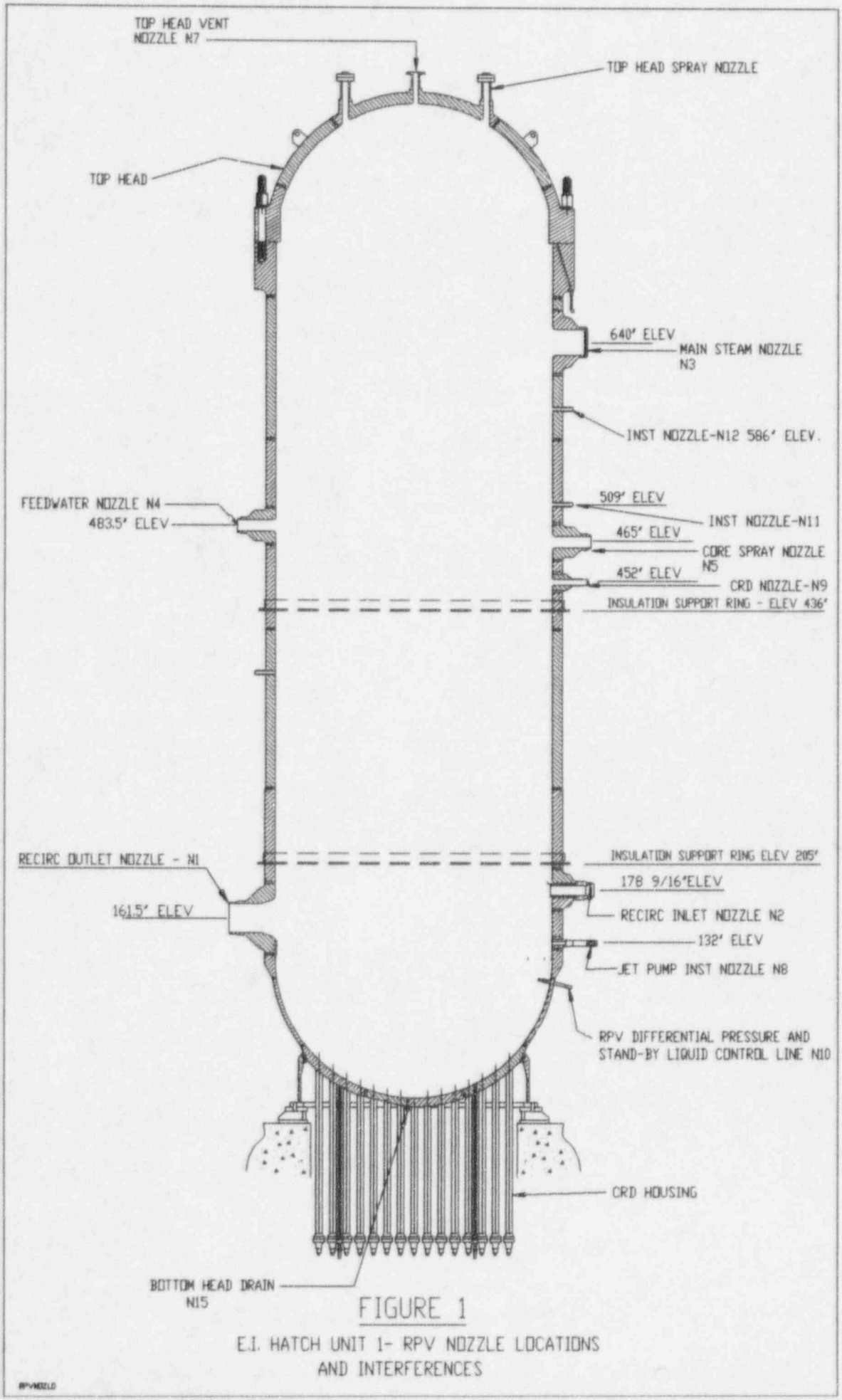

FIGURE 1

E.I. HATCH UNIT 1- RPV NOZZLE LOCATIONS
AND INTERFERENCES

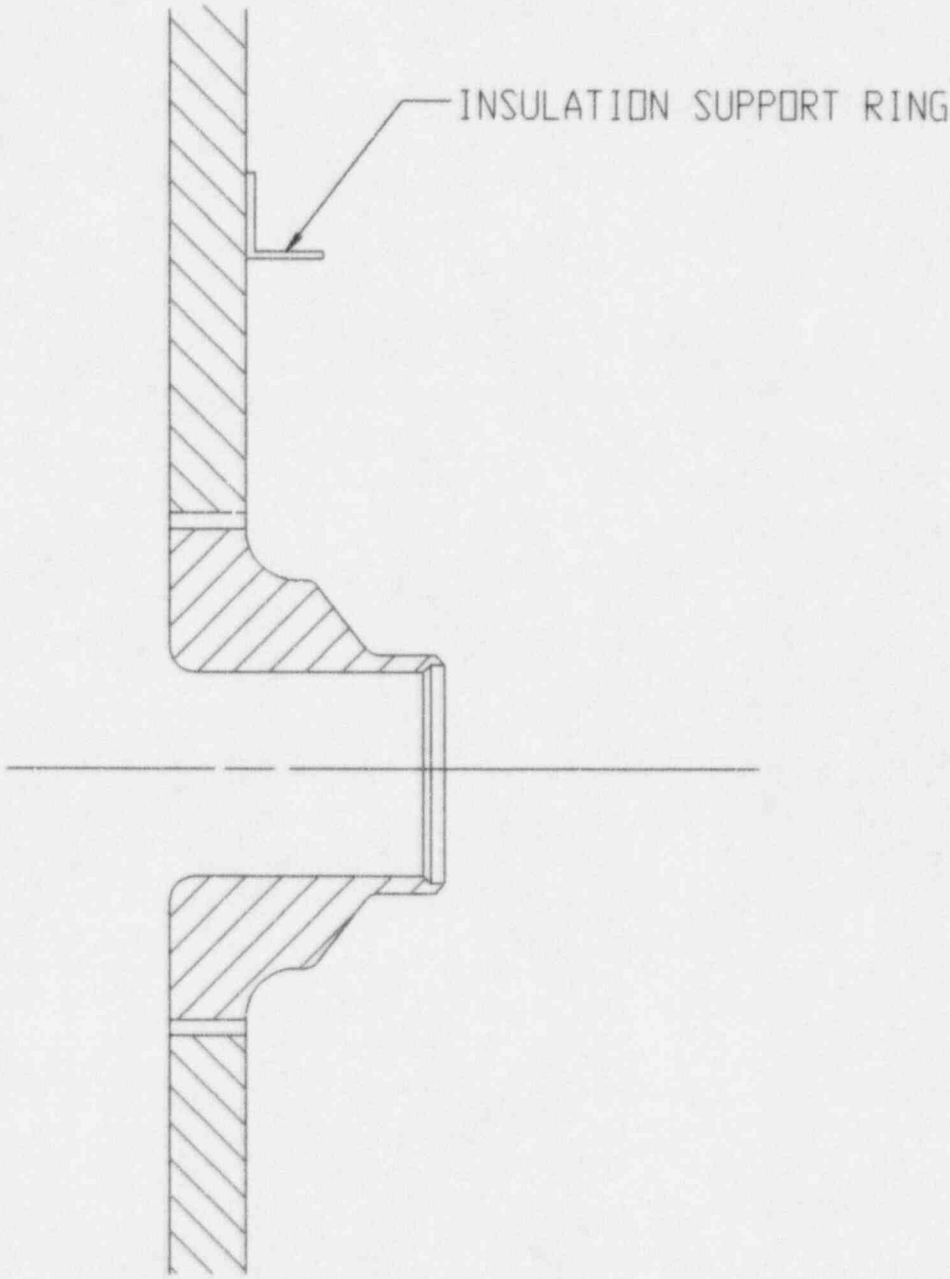

FIGURE 2

E.I. HATCH UNIT 1-RECIRCULATION INLET NOZZLE N2A-H, J-K
AND INSULATION RING

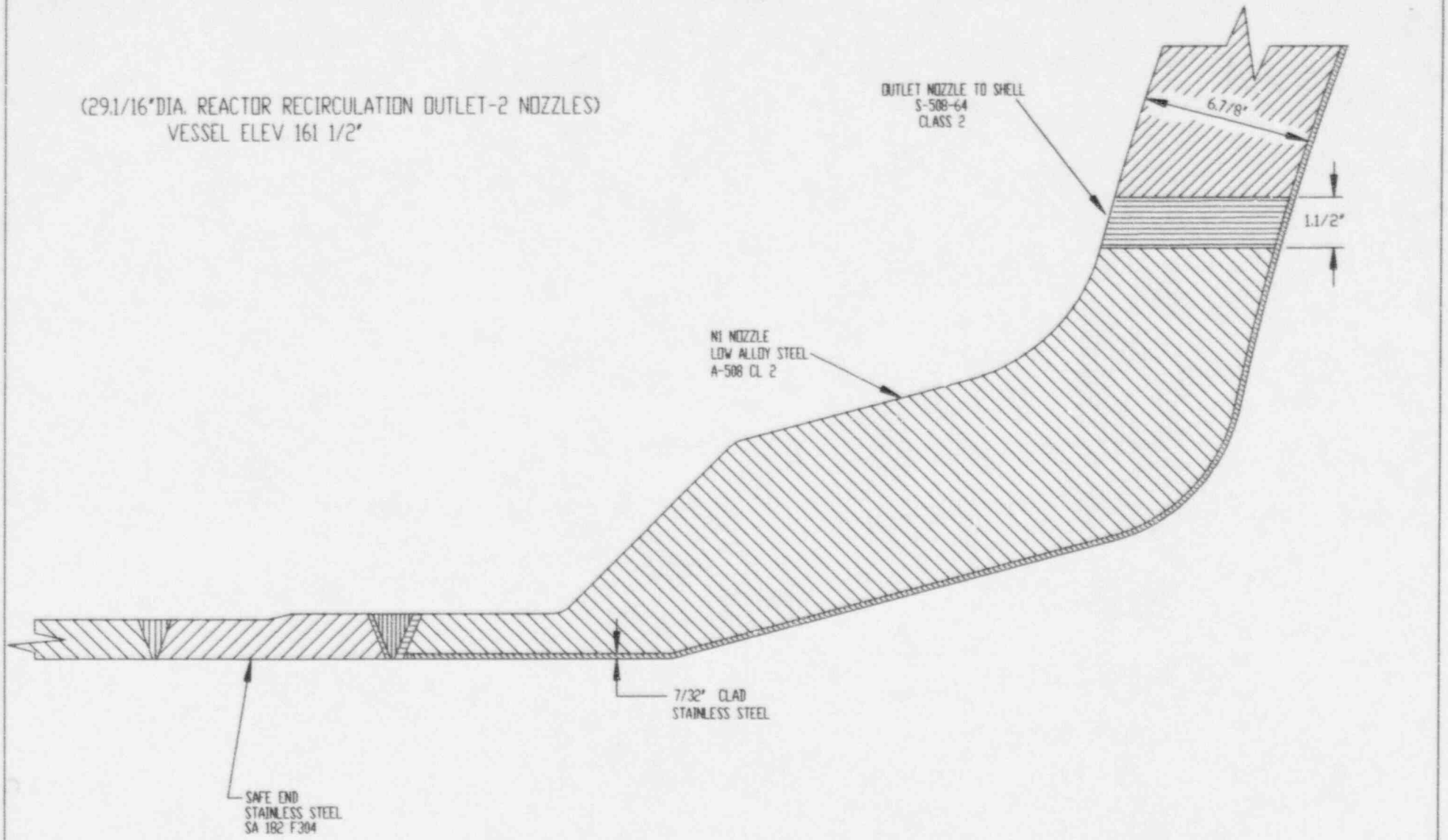

FIGURE 3

HATCH UNIT 1-RPV RECIRCULATION OUTLET NOZZLE N1A,B

RPVNOZL2

(12" REACTOR RECIRCULATION INLET - 10 NOZZLES)
VESSEL ELEV 178 9/16"

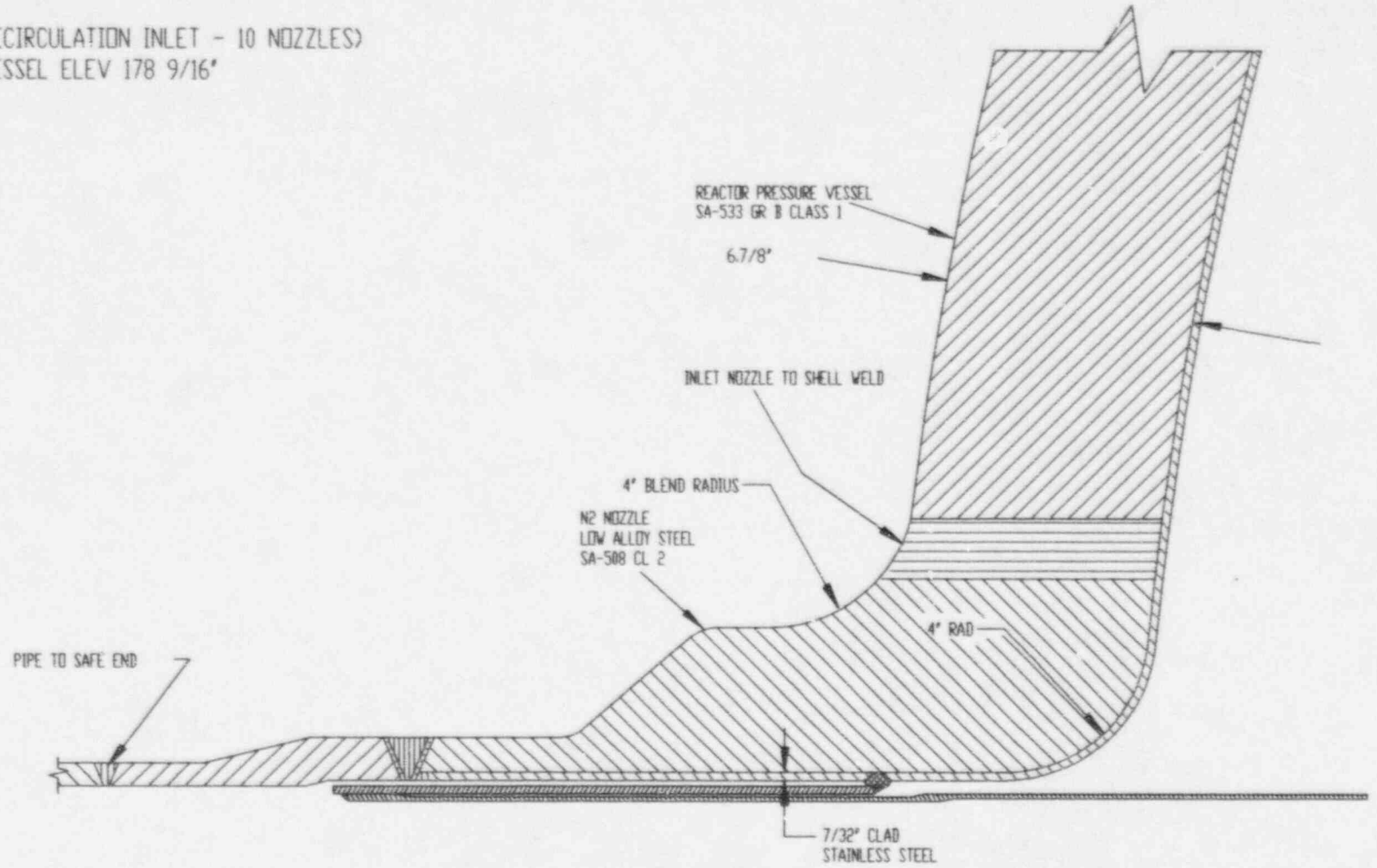

FIGURE 4

HATCH UNIT 1-RPV RECIRCULATION INLET NOZZLE N2A,B,C,D,E,F,G,H,J,K.

RPVNOZL3

(24" MAIN STEAM NOZZLE ASSEMBLY-3 NOZZLES)
VESSEL ELEV 640"

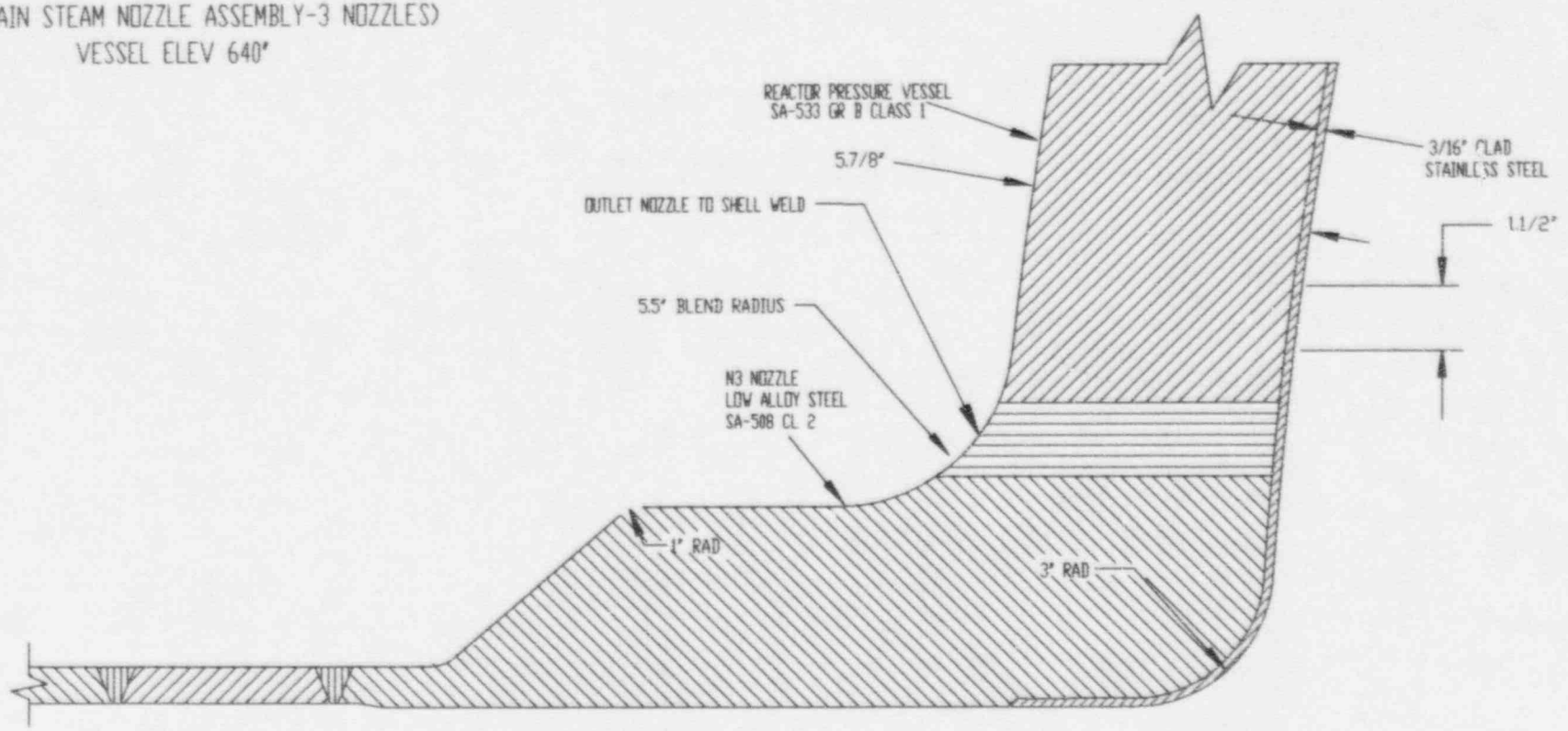

FIGURE 5

HATCH UNIT 1-RPV MAIN STEAM NOZZLE N3A,B,C.

RPVNOZL4

(12" FEEDWATER NOZZLE ASSEMBLY-4 NOZZLES)
VESSEL ELEV 483'

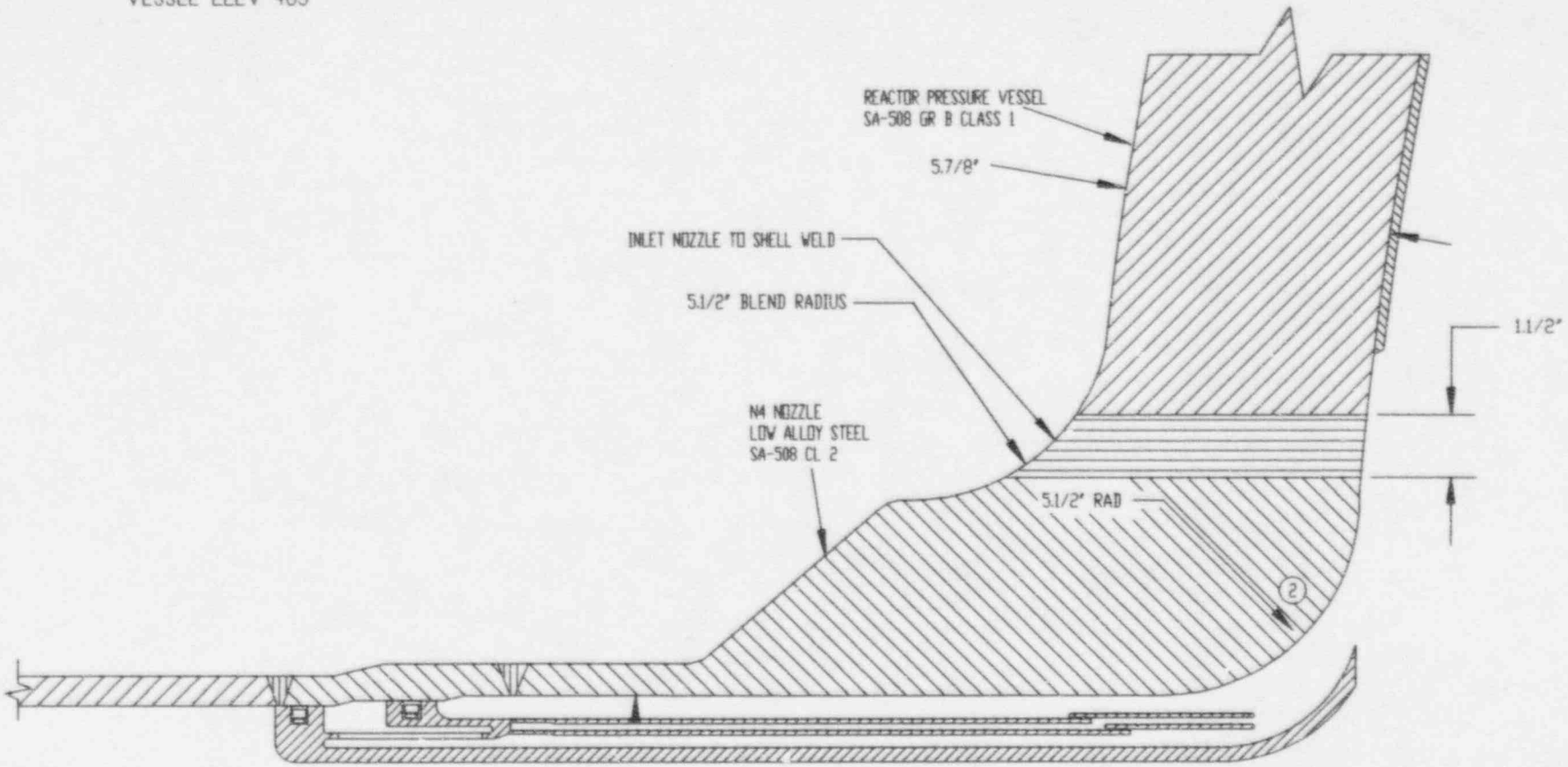

FIGURE 6

HATCH UNIT 1-RPV FEEDWATER INLET NOZZLE N4A,B,C,D

RPVNOZL5

(CORE SPRAY NOZZLE ASSEMBLY-2 NOZZLES)
VESSEL ELEV 465'

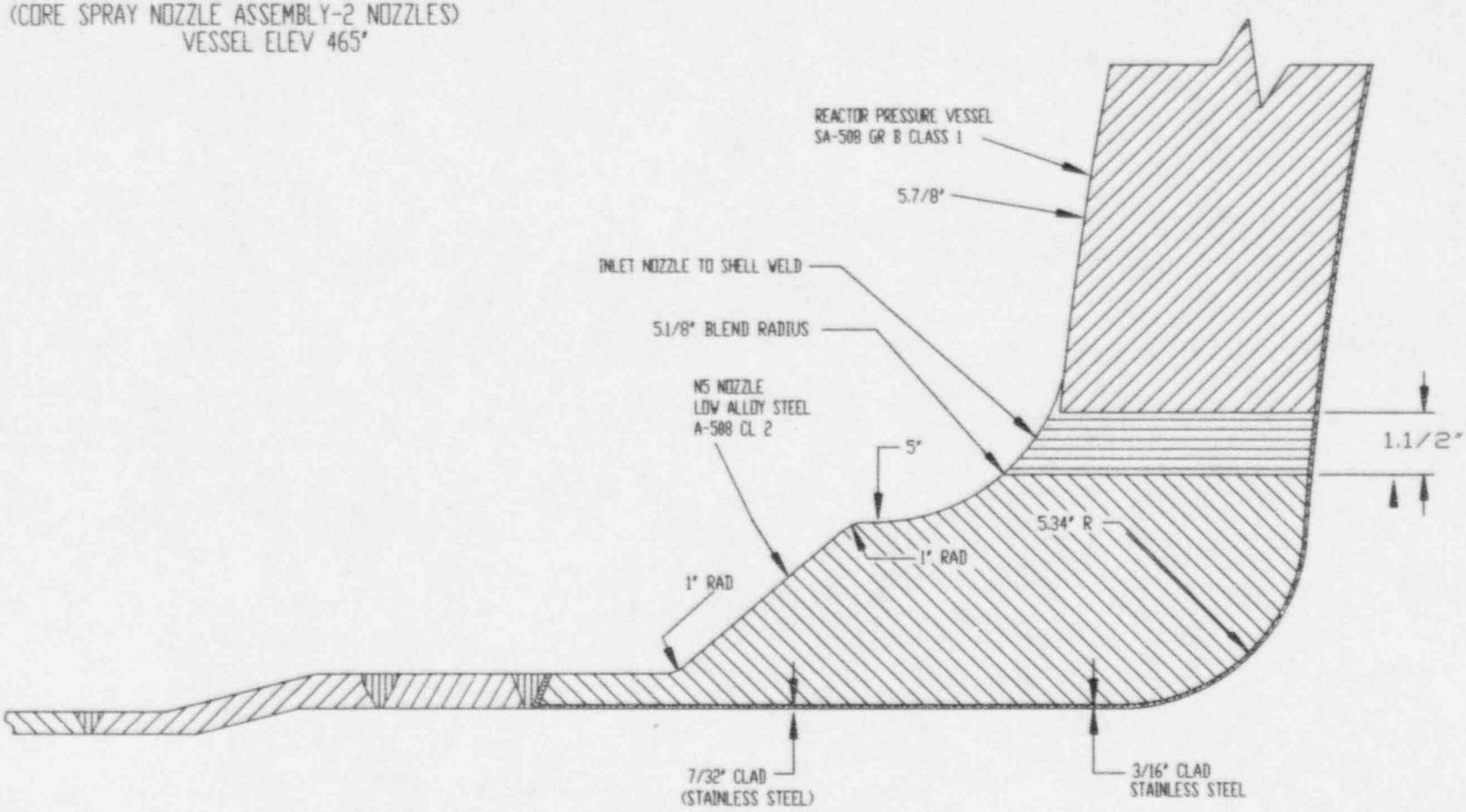

FIGURE 7

HATCH UNIT 1-RPV CORE SPRAY NOZZLE N5A,B

RPVNOZL6

(28" REACTOR RECIRCULATION OUTLET-2 NOZZLES)

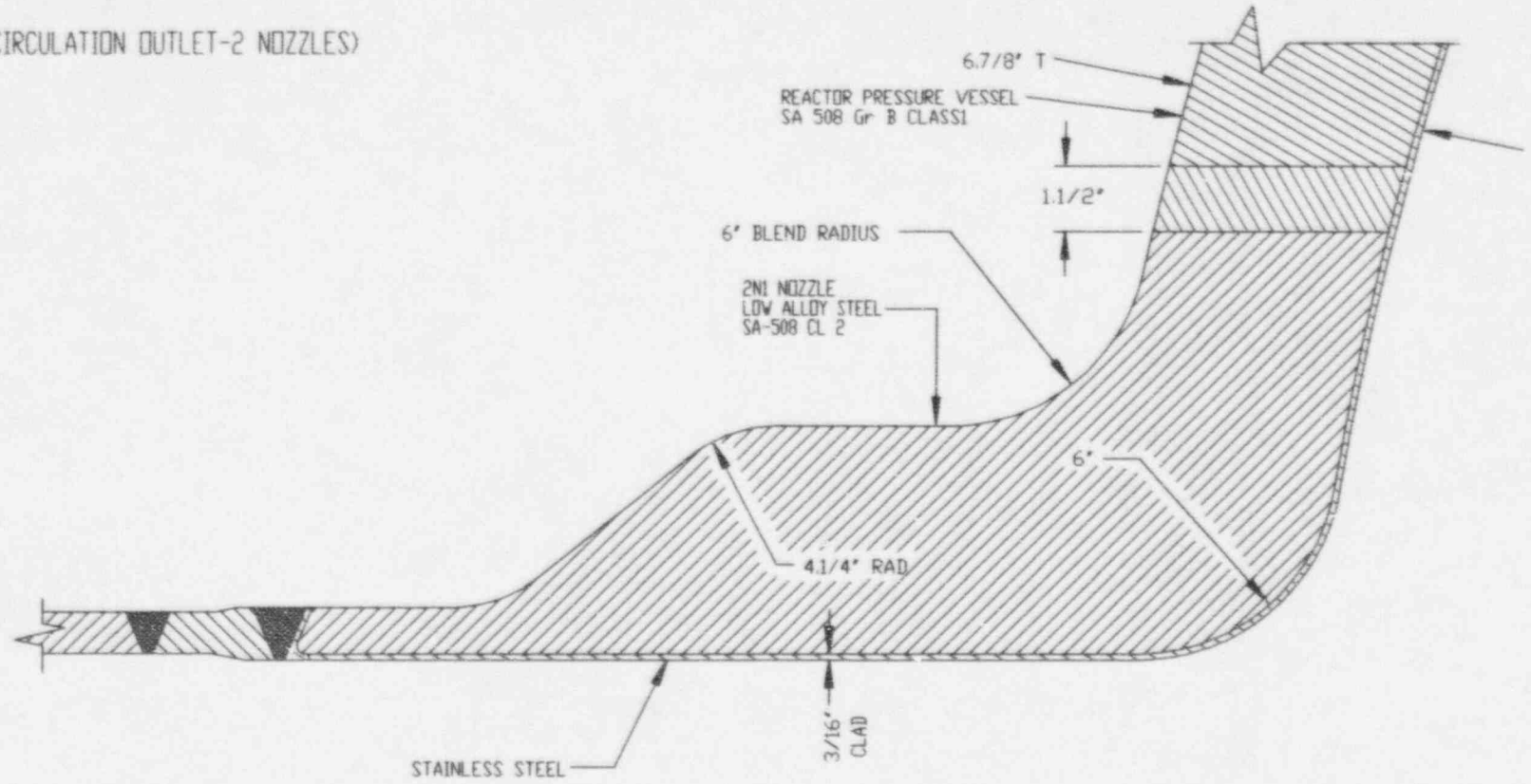

FIGURE 8

HATCH UNIT 2-RPV RECIRCULATION OUTLET NOZZLE 2N1A,B

RPVNOZL7

(12" REACTOR RECIRCULATION INLET - 10 NOZZLES)

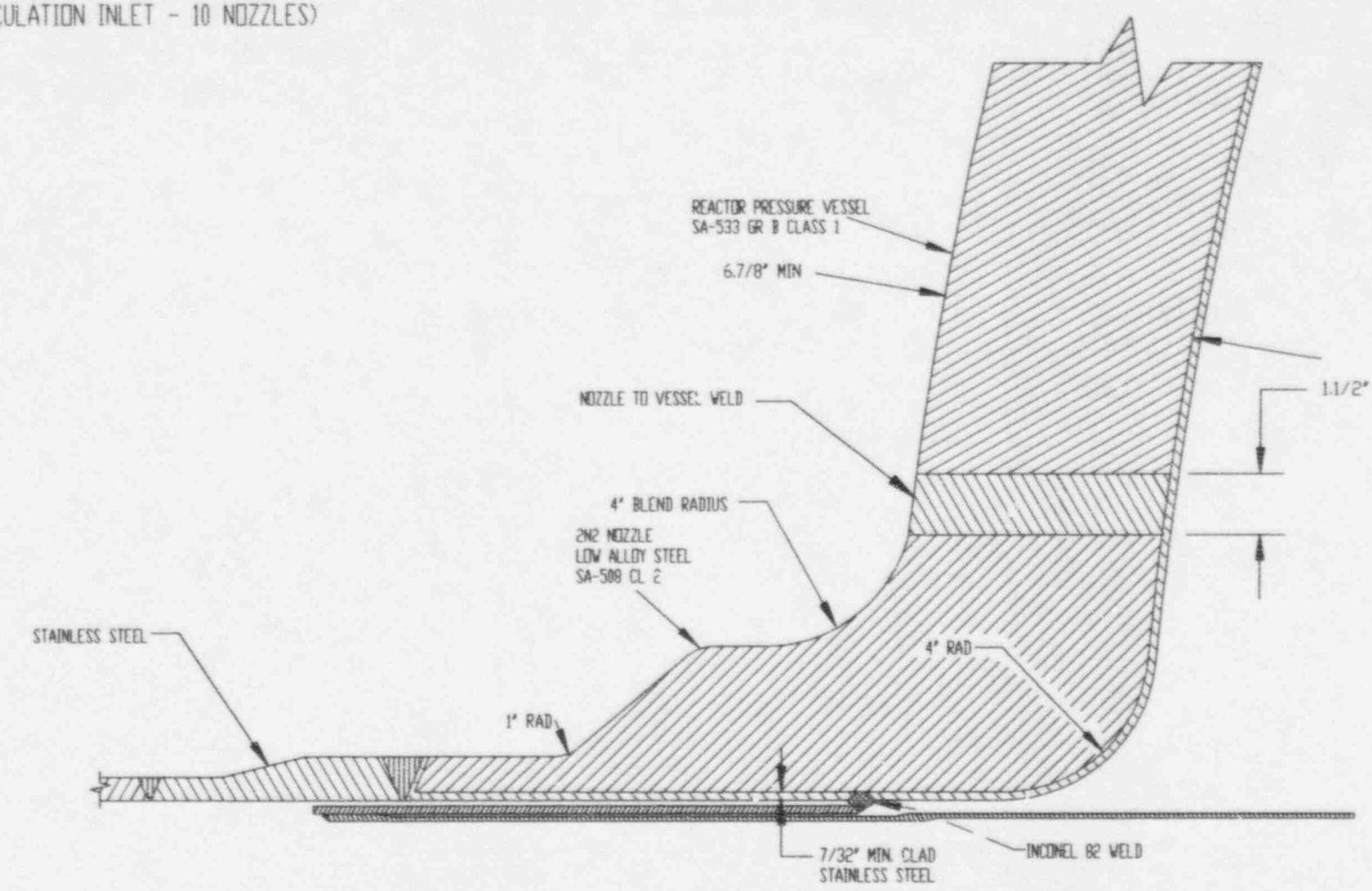

FIGURE 9

HATCH UNIT 2-RPV RECIRCULATION INLET 2N2A,B,C,D,E,F,G,H,J,K

RPVNOZL8

(24" MAIN STEAM NOZZLE ASSEMBLY-4 NOZZLES)

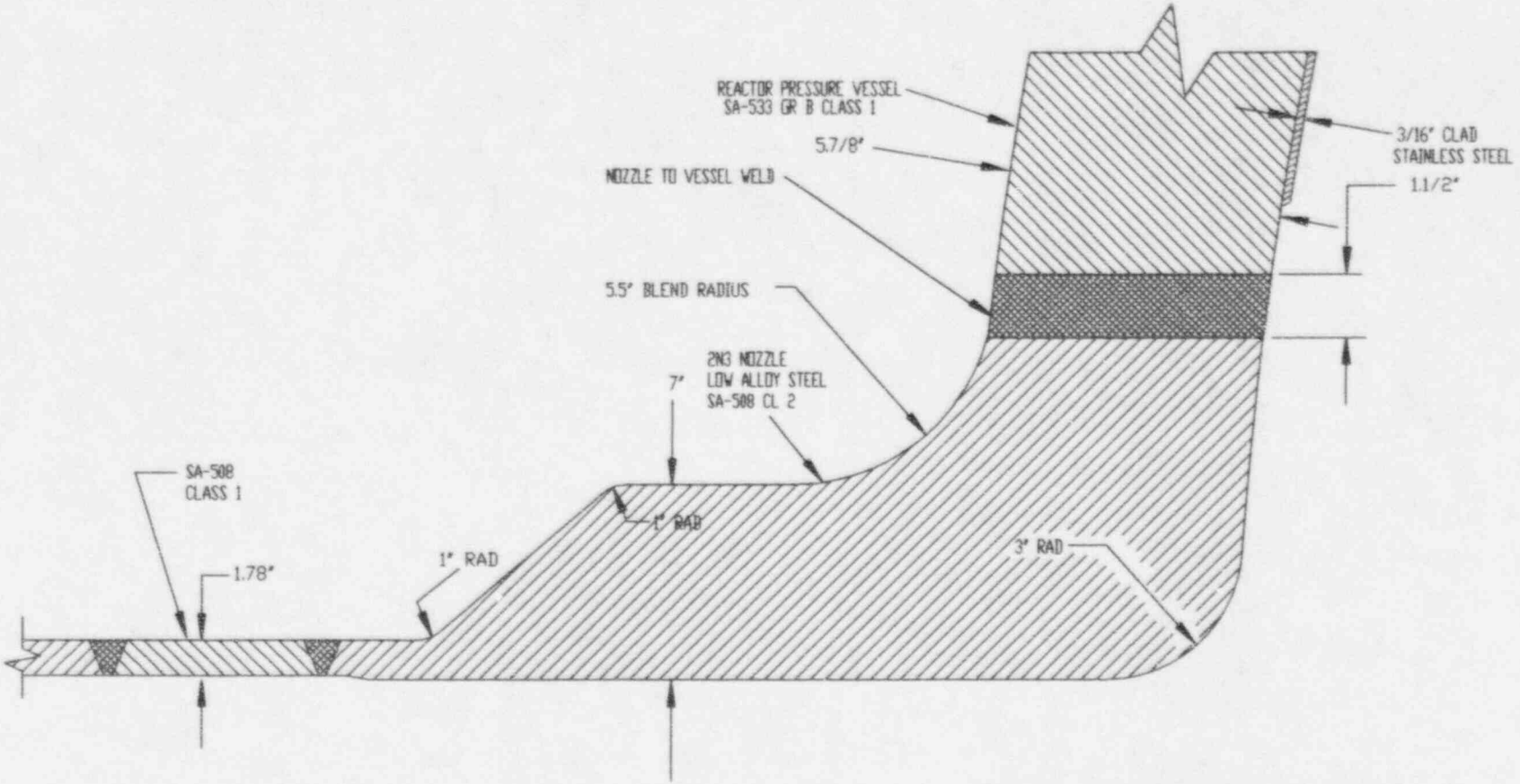

FIGURE 10

HATCH UNIT 2-RPV MAIN STEAM NOZZLE 2N3A,B,C,D (AND HATCH UNIT 1 N3D)

RPVNOZL9

(12" FEEDWATER NOZZLE ASSEMBLY-4 NOZZLES)

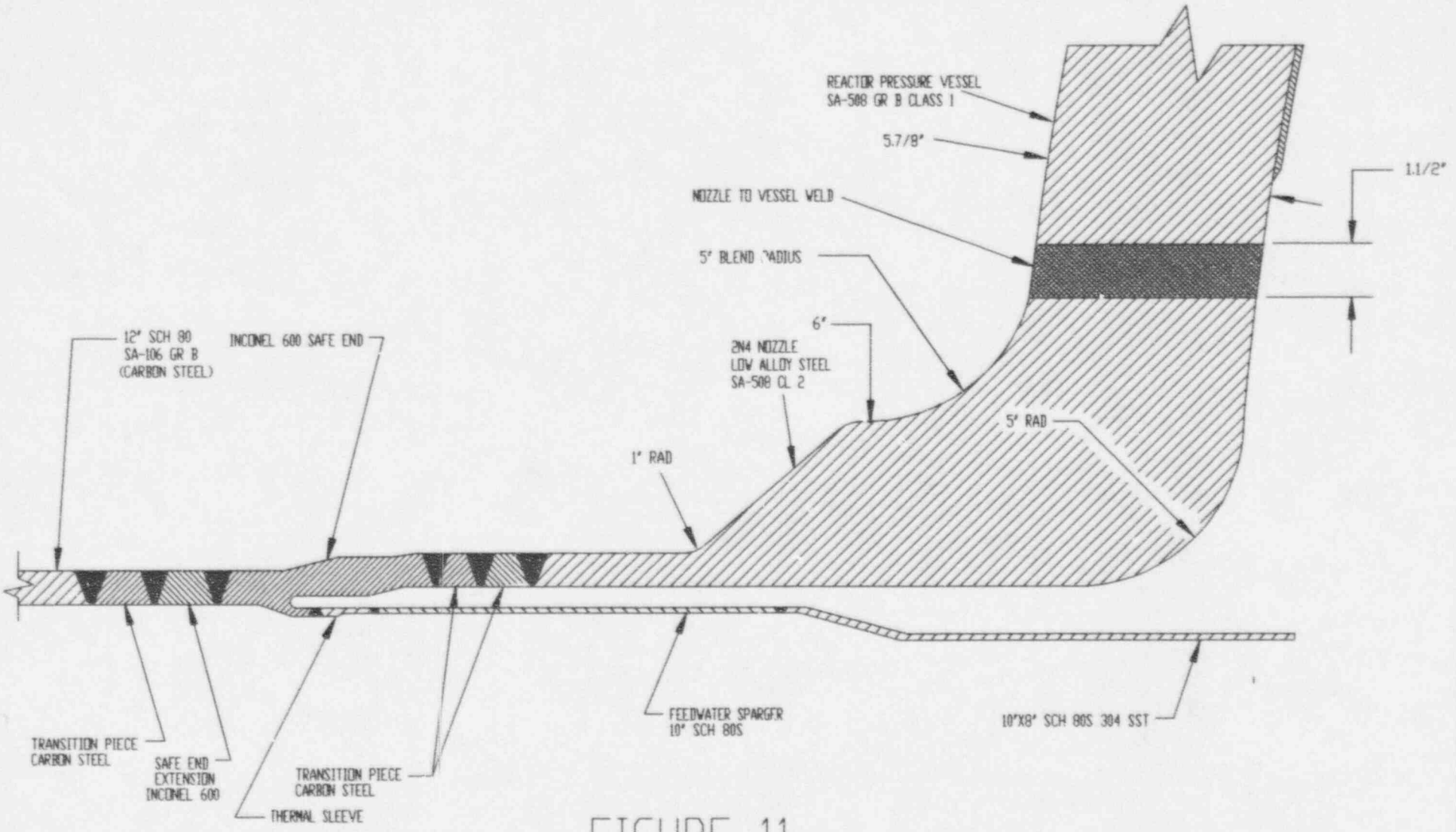

FIGURE 11

HATCH UNIT 2-RPV FEEDWATER NOZZLE 2N4A,B,C,D

RPVNOZ10

(CORE SPRAY NOZZLE ASSEMBLY-2 NOZZLES)

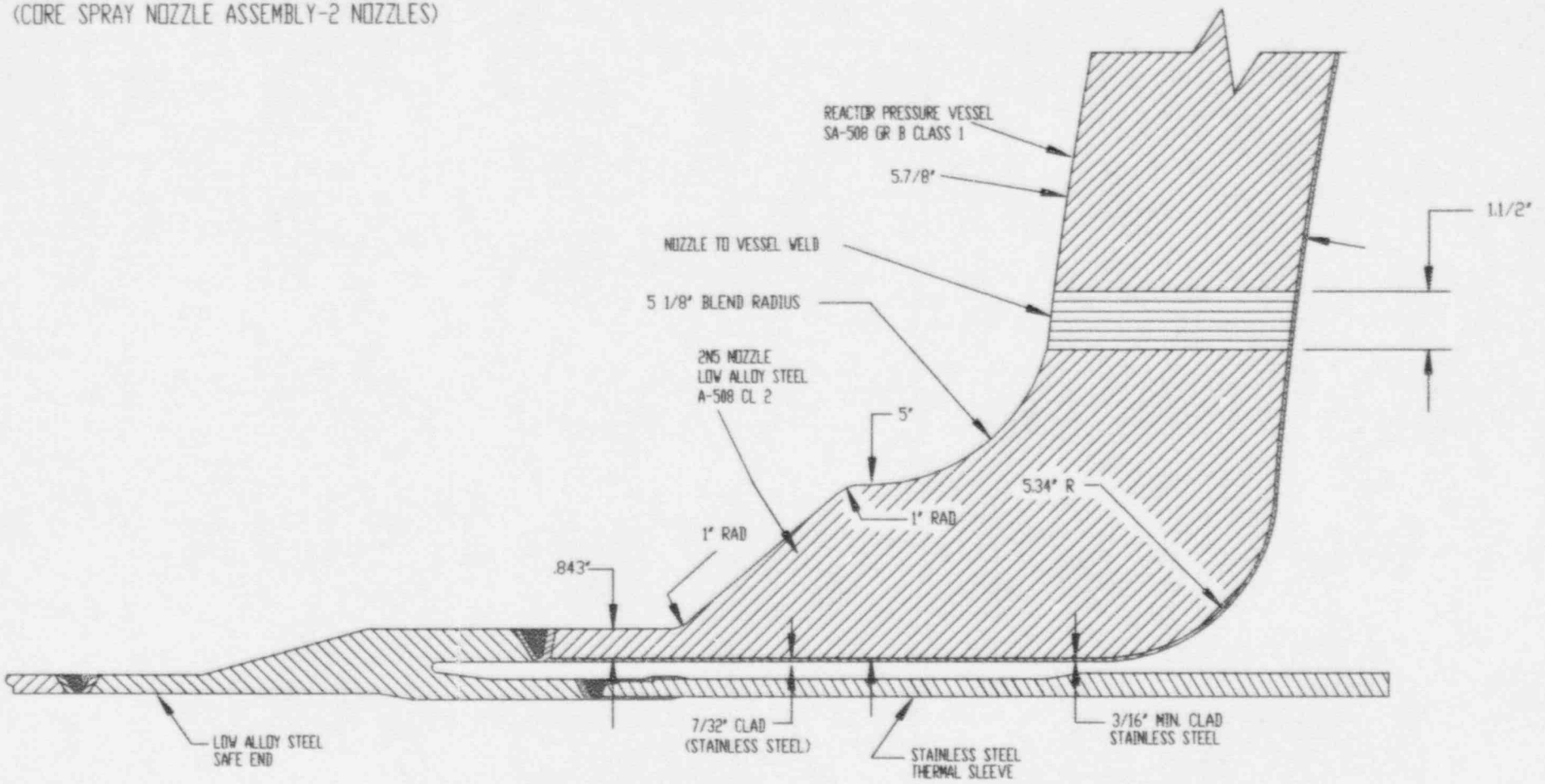

FIGURE 12

HATCH UNIT 2-RPV CORE SPRAY NOZZLE 2N5A,B

RPVNOZ11

(6" TOP HEAD SPRAY NOZZLE ASSEMBLY - 2 NOZZLES)

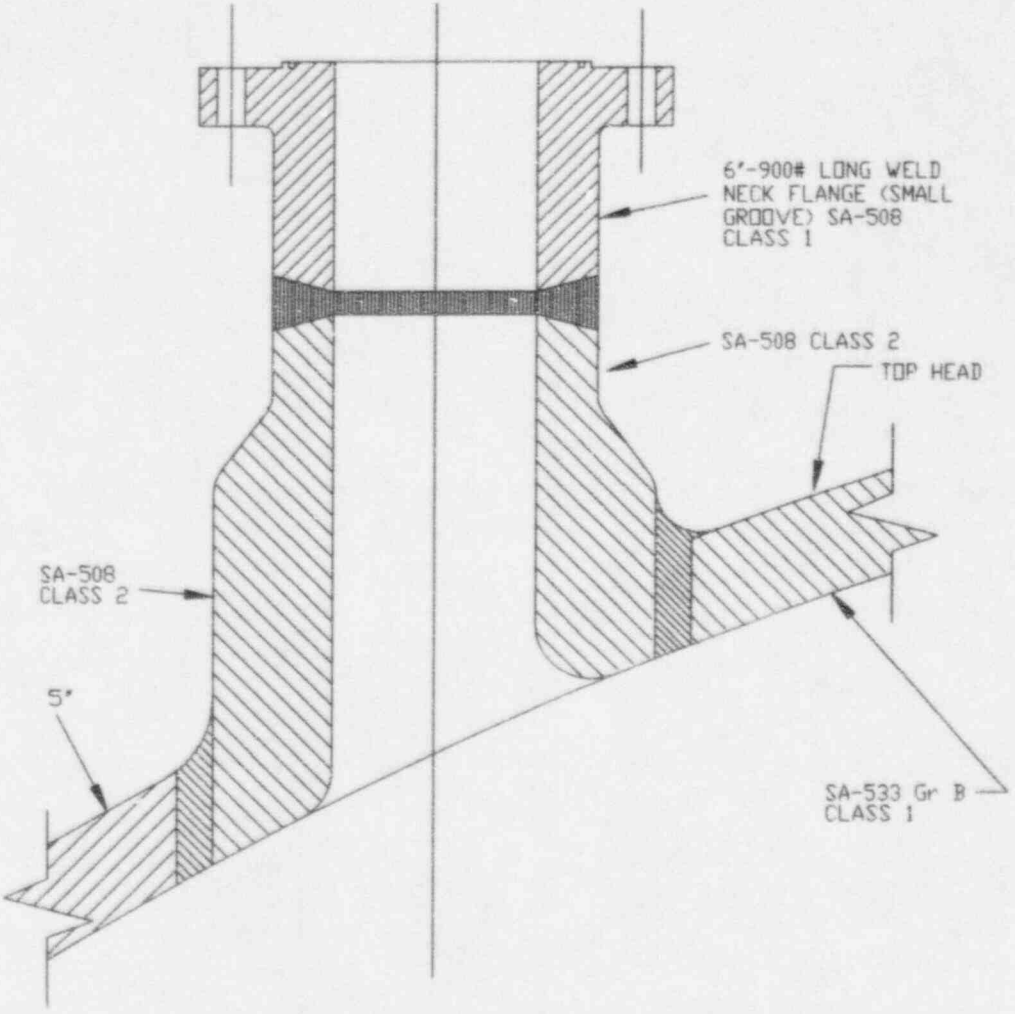

FIGURE 13

HATCH UNIT 1-TOP HEAD SPRAY NOZZLE N6A,B

RPVNOZ12

(6" TOP HEAD VENT NOZZLE ASSEMBLY - 1 NOZZLE)

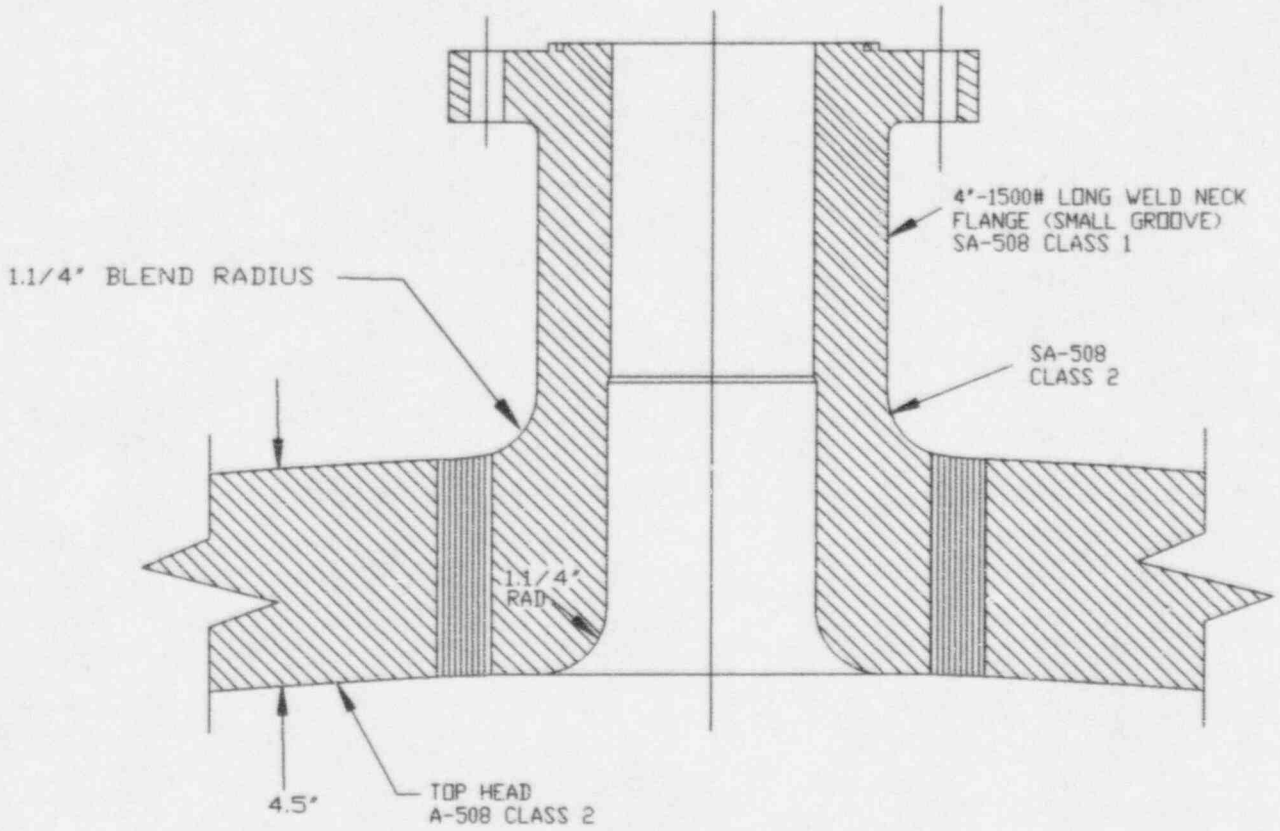

FIGURE 14

HATCH UNIT 1-TOP HEAD VENT NOZZLE N7

RPVNOZ13

(4" JET PUMP INSTRUMENTATION - 2 NOZZLES)

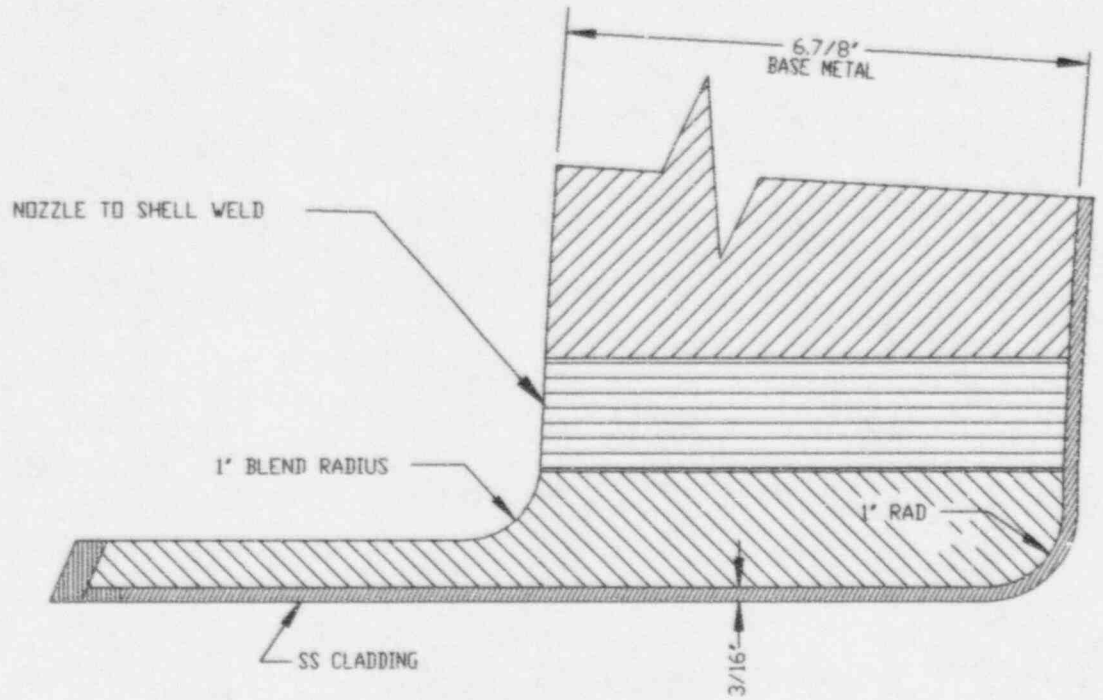

FIGURE 15

HATCH UNIT 1-JET PUMP INSTRUMENTATION NOZZLE N8A,B

RPVNOZ14

(3" CRD HYD SYSTEM RETURN NOZZLE ASSEMBLY-1 NOZZLE)

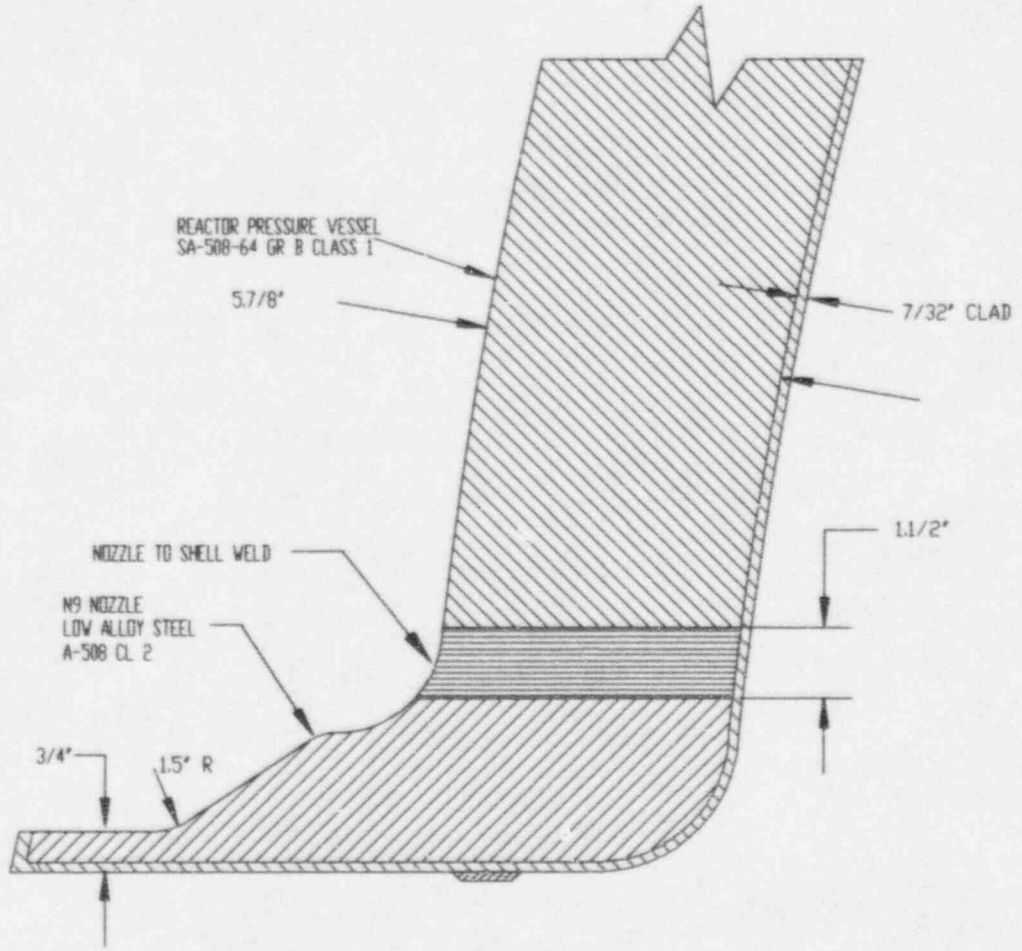

FIGURE 16

HATCH UNIT 1-RPV CRD HYD SYSTEM RETURN NOZZLE N9

RPVNOZ15

(6" TOP HEAD SPRAY NOZZLE ASSEMBLY - 2 NOZZLES)

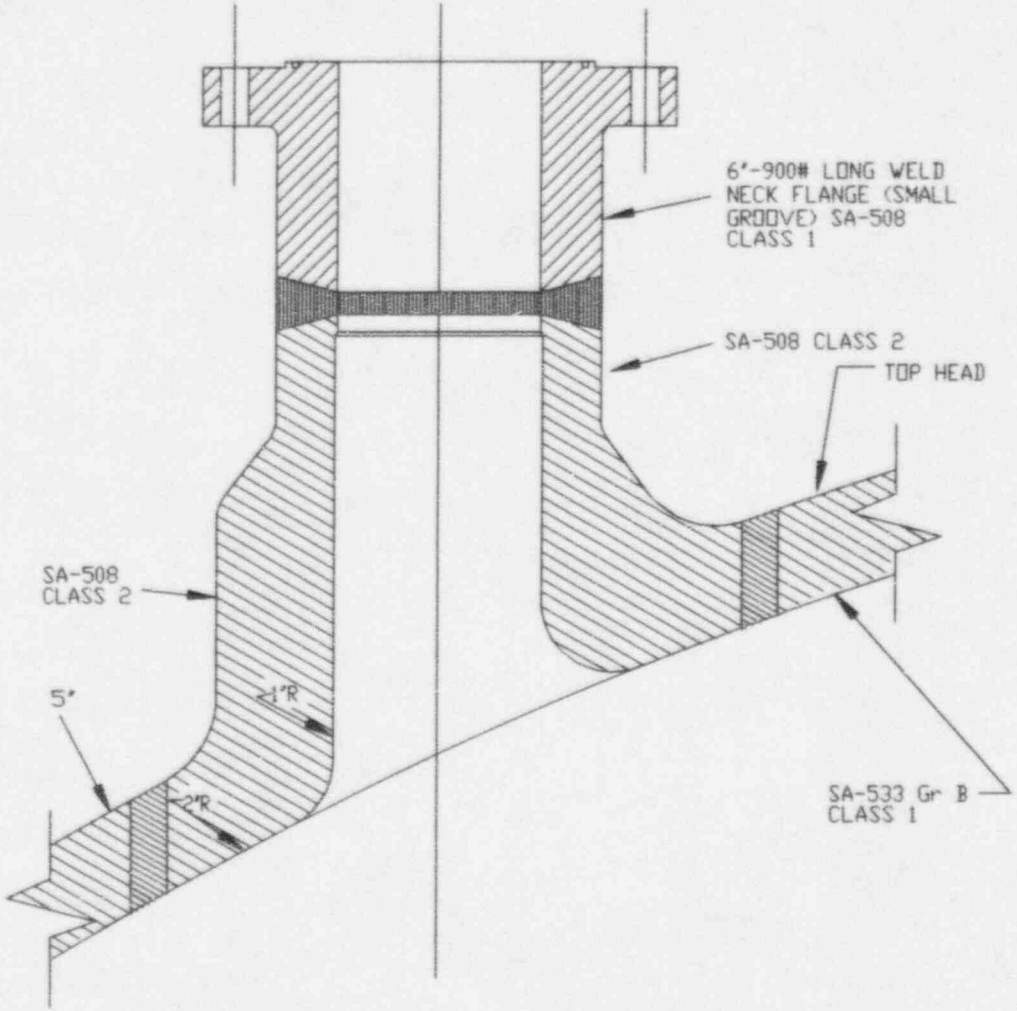

FIGURE 17

HATCH UNIT 2- TOP HEAD SPRAY NOZZLE 2N6A,B

RPVNOZ16

(6" TOP HEAD VENT NOZZLE ASSEMBLY - 1 NOZZLE)

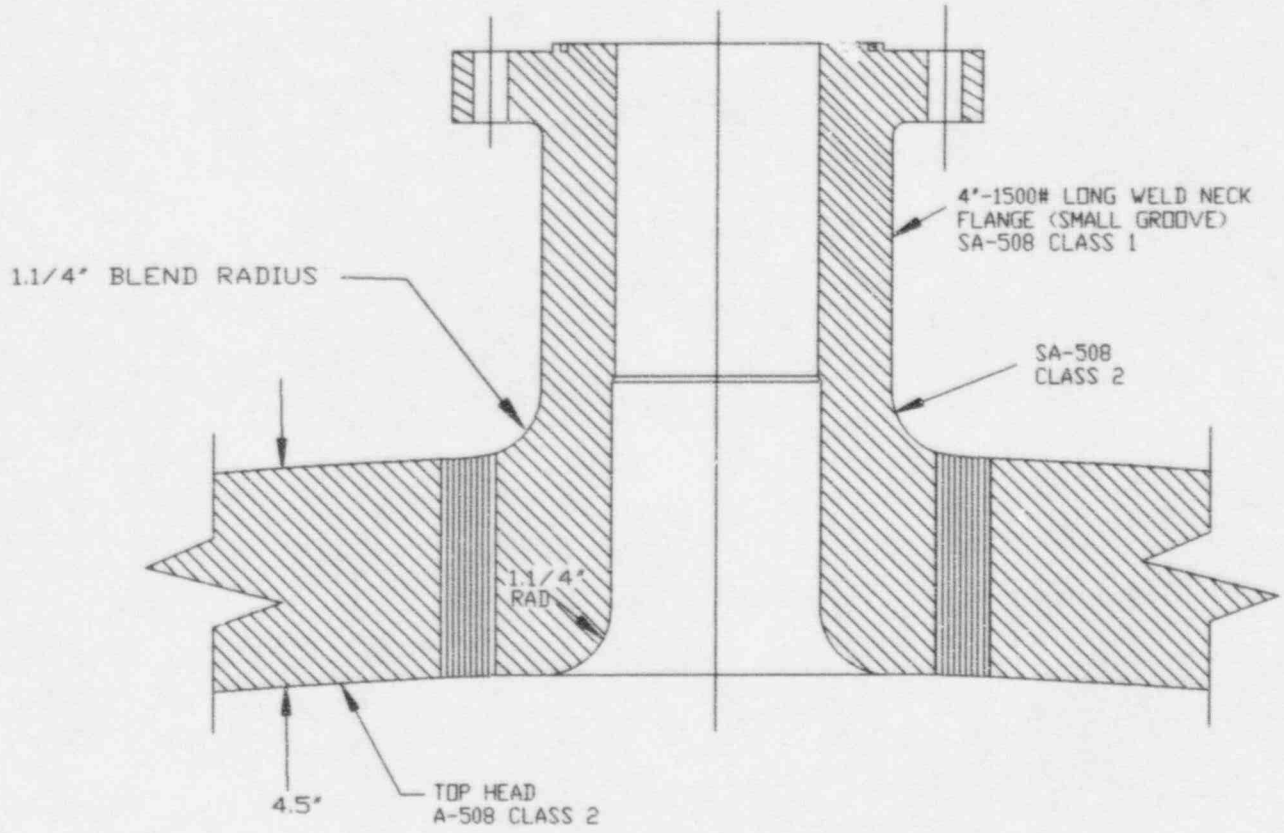

FIGURE 18

HATCH UNIT 2-TOP HEAD VENT NOZZLE 2N7

RPVNOZ17

(4" JET PUMP INSTRUMENTATION - 2 NOZZLES)

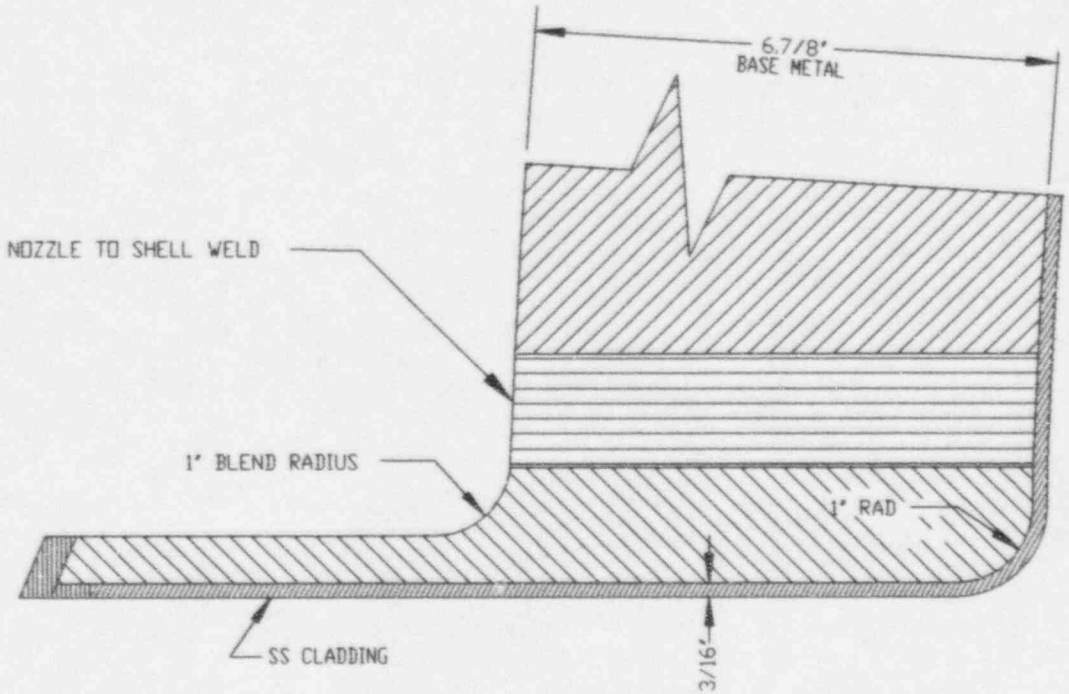

FIGURE 19

HATCH UNIT 2-JET PUMP INSTRUMENTATION NOZZLE 2N8A,B

RPVNOZ18

(3" CRD HYD SYSTEM RETURN NOZZLE ASSEMBLY-1 NOZZLE)

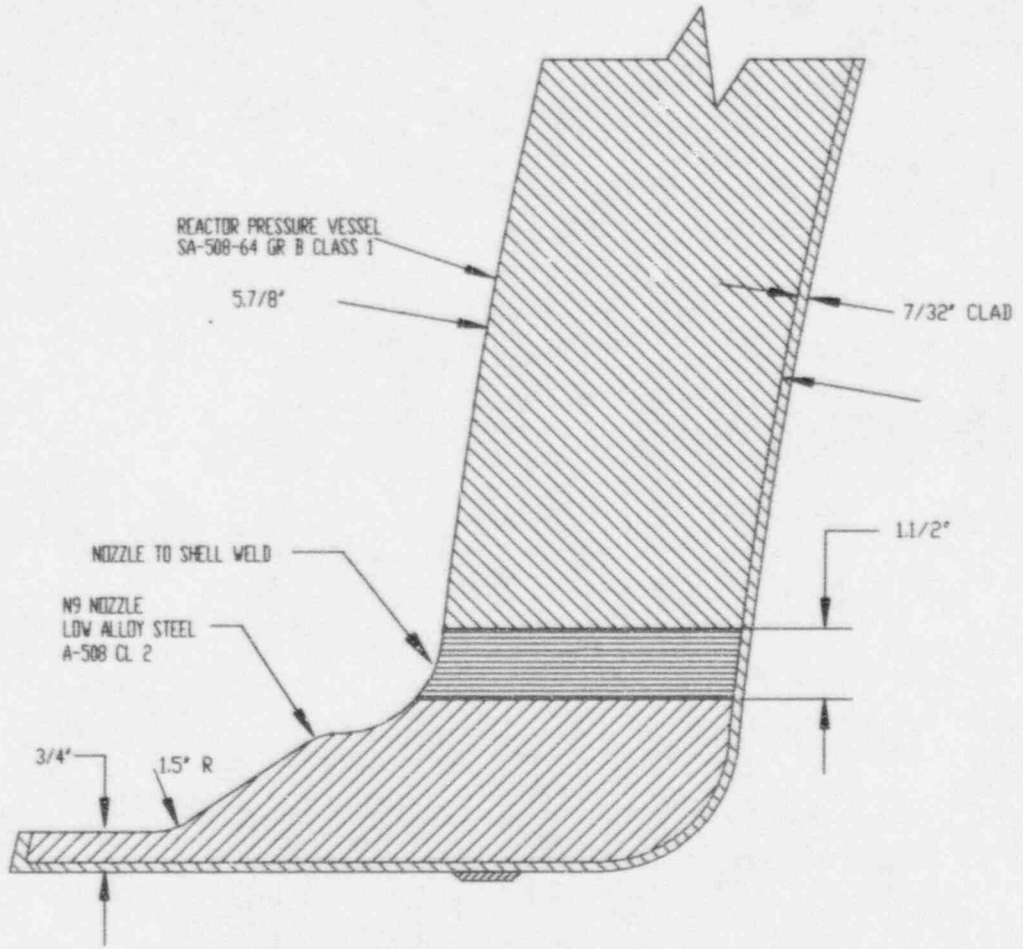

FIGURE 20

HATCH UNIT 2-RPV CRD HYD SYSTEM RETURN NOZZLE 2N9

RPVNOZ19

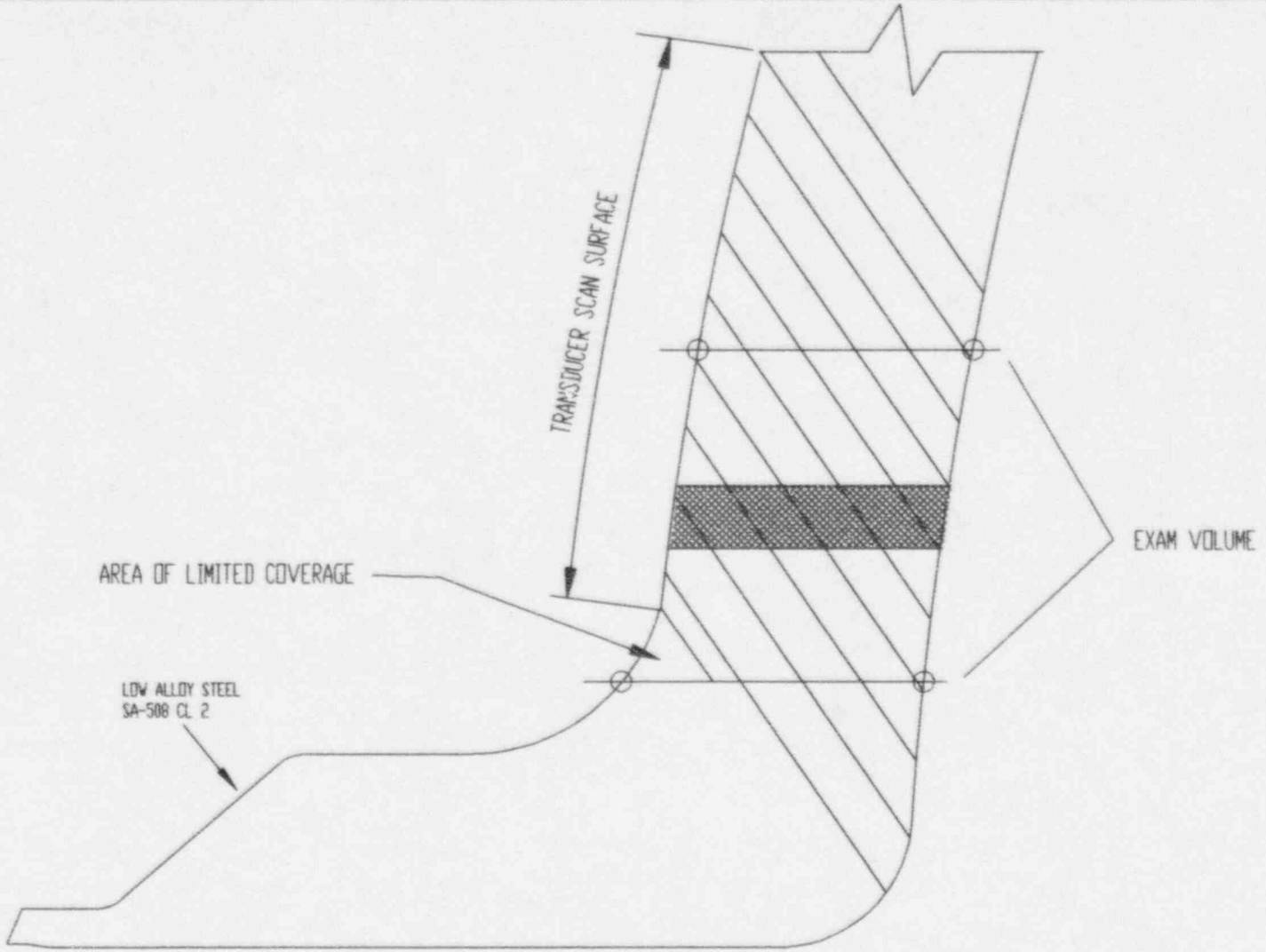

FIGURE 21

TYPICAL HATCH RPV NOZZLE 45 DEG. SCAN COVERAGE
FOR FLANGE TYPE NOZZLE.

RPVNOZ20

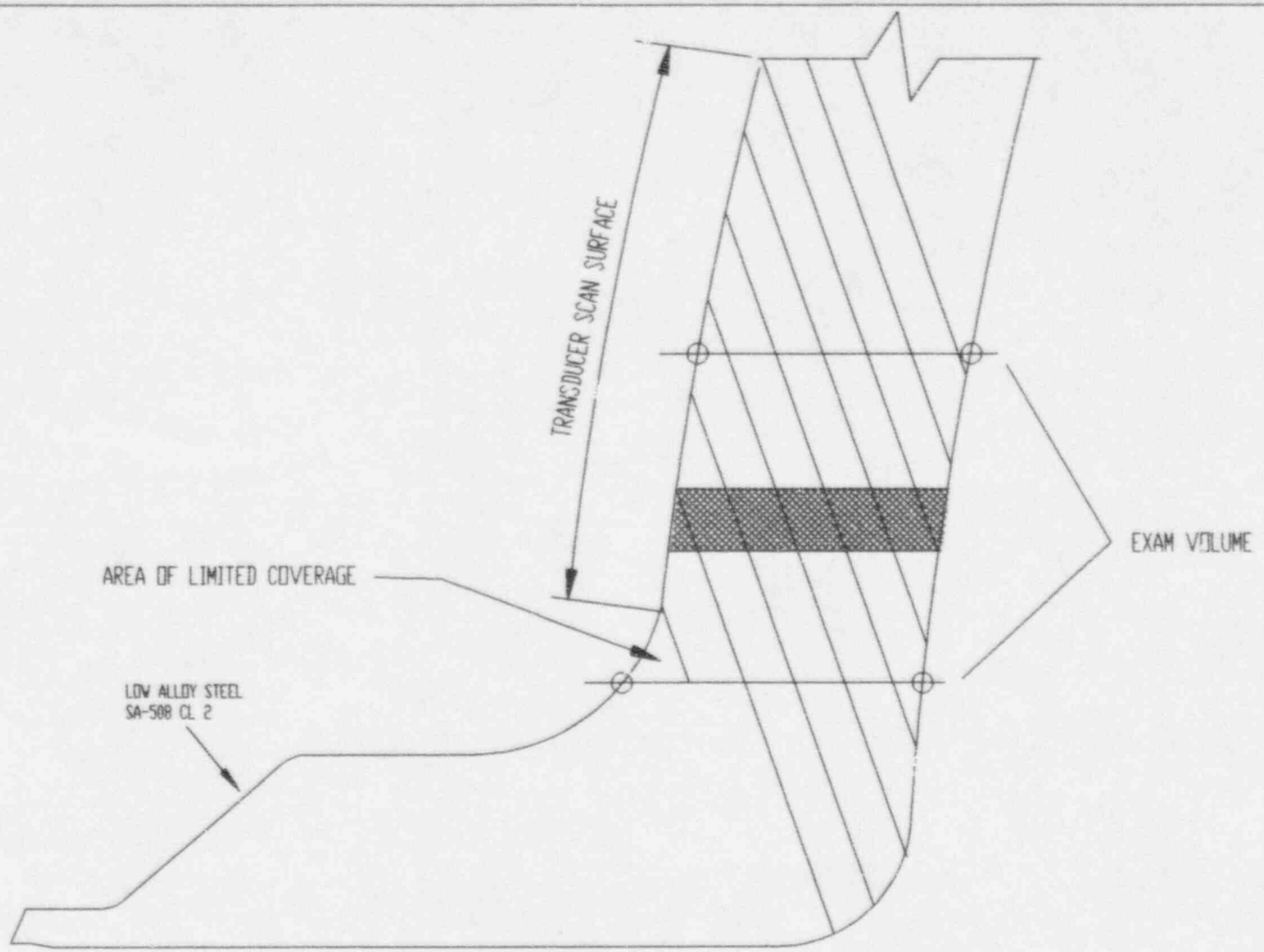

FIGURE 22

TYPICAL HATCH RPV NOZZLE 60 DEG. SCAN COVERAGE
FOR FLANGE TYPE NOZZLE.

RPVNOZ21

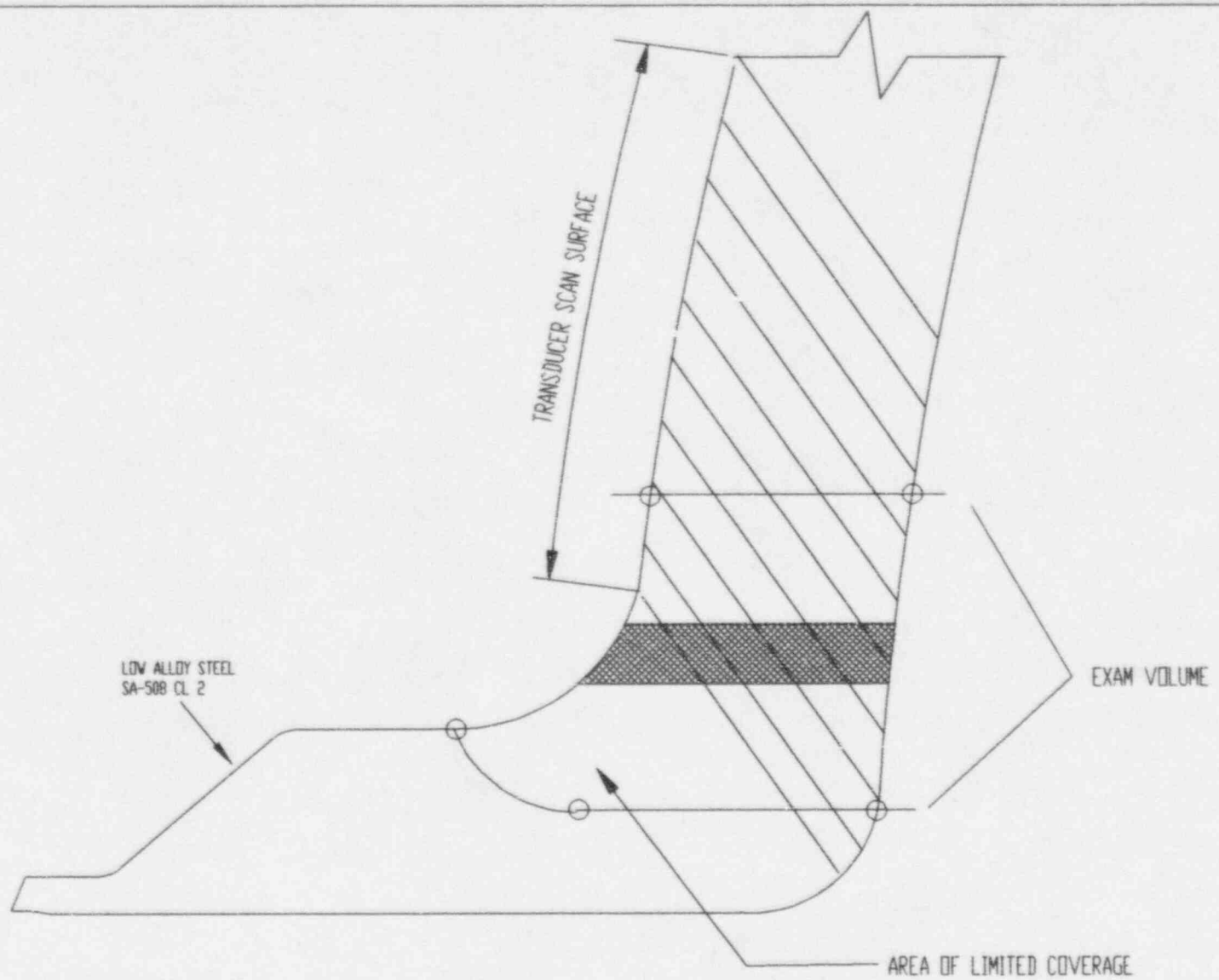

FIGURE 23

TYPICAL HATCH RPV NOZZLE 45 DEG. SCAN COVERAGE
FOR BARREL TYPE NOZZLE

RPVN0Z22

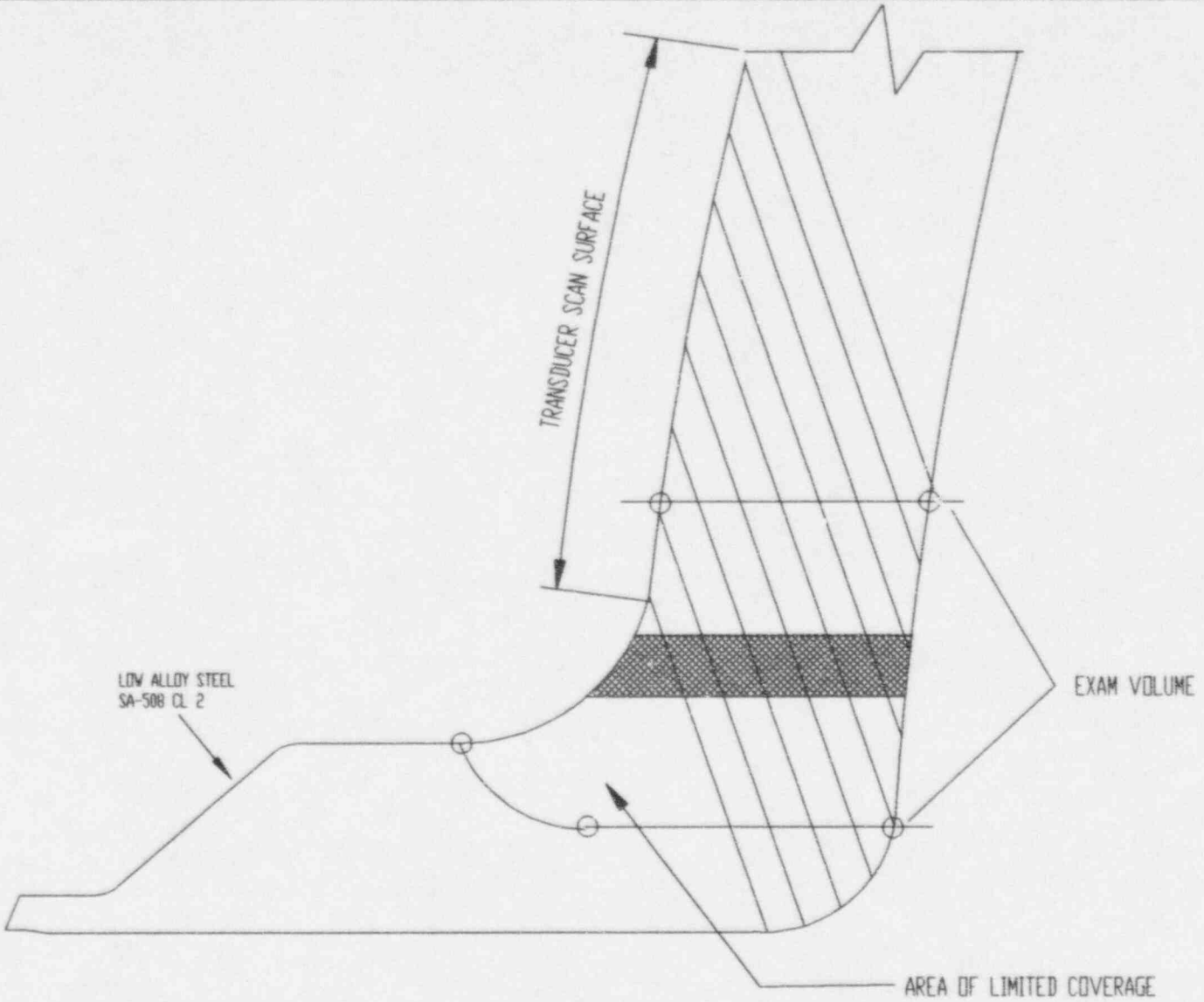

FIGURE 24

TYPICAL HATCH RPV NOZZLE 60 DEG. SCAN COVERAGE
FOR BARREL TYPE NOZZLE

RPVNOZ23

ATTACHMENT 2

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNIT 1
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-19

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNIT 1
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-19

I. System/Component for Which Relief is Requested: RPV threaded flange ligaments - Examination Category B-G-1, Item No. B6.40.

II. Code Requirement: ASME Code, Section XI, Table IWB-2500-1, Examination Category B-G-1, Item No. B6.40 requires that an volumetric examination be conducted in accordance with the coverage shown in Figure IWB-2500-12.

III. Code Requirement for Which Relief is Requested: Limitations exist that preclude complete examination of the required examination volume.

IV. Basis for Relief: Figure IWB-2500-12 shows that the radius of the required examination volume is defined as one inch from the inside surface of the stud hole, or if threaded bushings are used, one inch from the bushing. Hatch Unit 1 has threaded bushings while Unit 2 does not; therefore, the examination volume extends radially farther out into the flange for Unit 1. This increase in the radial dimension for Unit 1 creates an interference with the O-Ring grooves that are located on the face of the flange, both inside and outside the bolting ring. These grooves prevent the examination of the outer portion of the examination volume. Approximately 75% of the volume can be examined, including all of the volume adjacent to threads.

V. Alternate Examination: None.

VI. Justification for Granting Relief: This examination is performed to detect cracking initiating from the threaded area of the flange. While coverage of the outer 25% portion of the examination volume cannot be obtained, complete examination of the area in which cracking would initiate is obtained. Denial of this relief request would cause an excessive burden upon Georgia Power Company because it has been demonstrated that it is impractical to meet the Code-required volume.

The volumetric examination of 75% of the examination volume will provide reasonable assurance that inservice flaws exceeding acceptance standards have not developed or that they will be detected and dispositioned prior to the return of the reactor vessel to service. Therefore, an acceptable level of quality and safety will be maintained and public health and safety will not be endangered by approving this relief request.

VII. Implementation Schedule: The relief request is applicable for the Third 10-Year Interval and close-out of the Second 10-Year Interval.

VIII. Relief Request Status: This is a new relief request awaiting NRC approval.

ATTACHMENT 3

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNITS 1 AND 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-20

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNITS 1 AND 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-20

I. System/Component for Which Relief is Requested: Four Hatch Unit 1 RPV Stabilizer Brackets and six Hatch Unit 2 RPV Stabilizer Brackets - Examination Category B-H, Item No. B8.10.

II. Code Requirement: ASME Code, Section XI, Table IWB-2500-1, Examination Category B-H, Item No. B8.10 requires that a surface examination be conducted in accordance with the coverage shown in Figure IWB-2500-15.

III. Code Requirement for Which Relief is Requested: Limitations exist that preclude complete examination of the required examination area.

IV. Basis for Relief: As described in the FSAR, "vessel stabilizers connect the reactor vessel to the top of the shield wall surrounding the vessel. Each vessel stabilizer assembly consists of a stabilizer rod, threaded at the ends; springs, washers, nuts, plates and a bumper bracket". The brackets for Hatch Units 1 and 2 were installed on the reactor vessel at the time of vessel fabrication. The vessel was set into place and the shield wall constructed such that the bottom of the brackets were only about 2 to 6 inches above the top of the shield wall.

Hatch Unit 1 has a "Tee" shaped bracket stabilizer bracket welded to the RPV as shown in Figure 1. This design prevents examination of the weld located on the ends of the bracket between the "ears" of the tee and the RPV wall. Additionally, the bottom of the bracket cannot be examined due to the limited distance between the bracket and the shield wall. With such a small opening, especially considering the additional interference from other components of the stabilizer assembly and vessel insulation, insufficient space exists to perform the required examinations. Approximately 30 to 35% of the weld can be examined on each Unit 1 bracket.

Hatch Unit 2 has a more conventional "lug type" design, as shown in Figure 2, that extends approximately 15" from the RPV surface. With this extension and the above described interference, the bottom portion of the weld cannot be accessed for examination. The top of the weld and both sides of the weld can be examined, resulting in a coverage of approximately 65 to 70%.

V. Alternate Examination: None.

VI. Justification for Granting Relief:: The Hatch FSARs describes the RPV stabilizers as being designed to: (1) permit radial and axial vessel expansion, (2) limit horizontal vibration, and (3) resist seismic and jet reaction forces. There are minimal forces acting on these brackets during normal operation; therefore, there is low probability that these welds would ever experience cracking during normal operation and; therefore, would be fully capable of handling LOCA (jet force reaction and siesmic) loads.

Denial of this relief request would cause an excessive burden upon Georgia Power Company because it has been demonstrated that it is impractical to meet the Code-requirements. The complete examination of the top of the bracket combined with the low probability of cracking, should provide reasonable assurance that inservice flaws of such size that they would challenge the structural integrity of the bracket welds are not present. Therefore, an acceptable level of quality and safety will be maintained and public health and safety will not be endangered by approving this relief request.

VII. Implementation Schedule: The relief request is applicable for the Third 10-Year Interval and close-out of the Second 10-Year Interval.

VIII. Relief Request Status: This is a new relief request awaiting NRC approval.

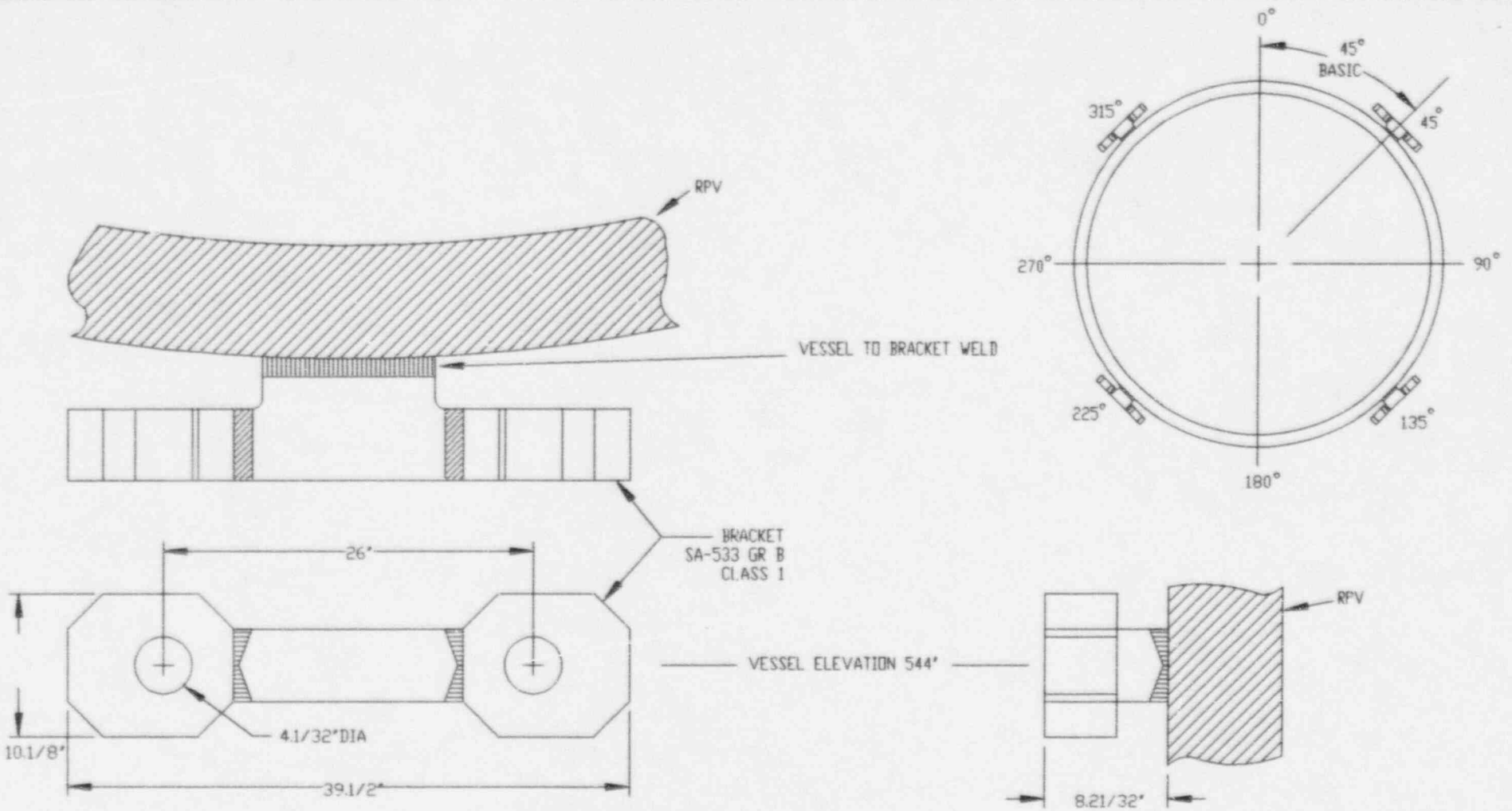

FIGURE 1

HATCH UNIT 1-RPV STABILIZER BRACKET

RPVSTAB1

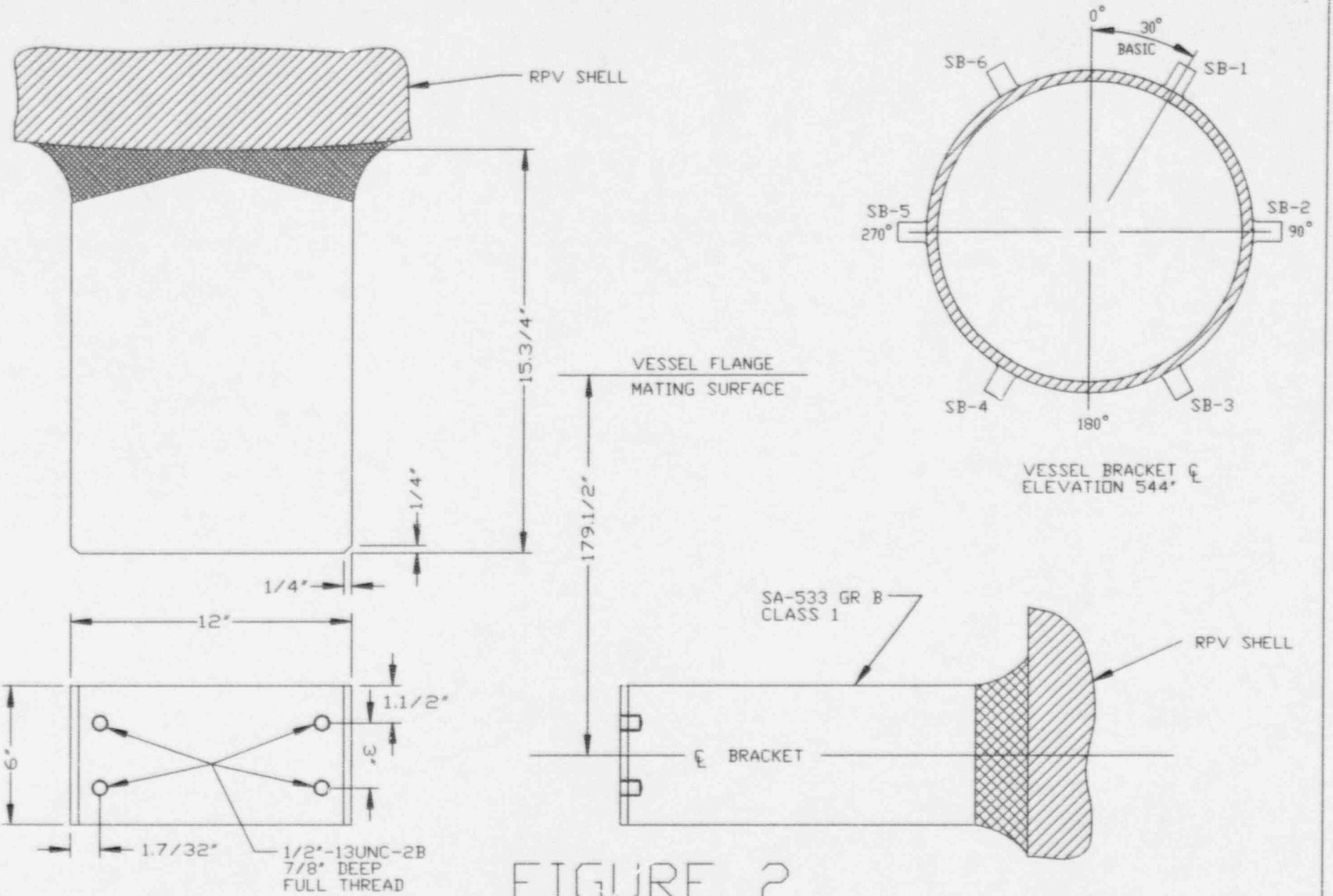

FIGURE 2

HATCH UNIT 2-RPV STABILIZER BRACKET

RPVSTAB2

ATTACHMENT 4

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNITS 1 AND 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-21

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNITS 1 AND 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-21

I. System/Component for Which Relief is Requested: - Hatch Units 1 and 2 Reactor Pressure Vessel Head-To-Flange Welds - Examination Category B-A, Item No. B1.40.

II. Code Requirement: ASME Code, Section XI, Table IWB-2500-1, Examination Category B-A, Item No. B1.40 requires that a volumetric and surface examination be conducted in accordance with the coverage shown in Figure IWB-2500-5. Additionally, Section XI, Article I-2000 requires that ultrasonic examinations of vessels greater than 2 in. thickness be conducted in accordance with ASME Code, Section V, Article 4. Article 4 requires two directional coverage, when practical.

III. Code Requirement for Which Relief is Requested: Limitations exist that preclude complete volumetric examination of the head-to-flange welds.

IV. Basis for Relief: As shown in Figure 1, head-to-flange welds 1HC-2 and 2HC-2 are located such that ultrasonic scanning can be performed for about six inches on either side of the respective weld. Past the six inches, on the dome side, there is a taper that joins two different thicknesses together, while on the flange side there is a strong curvature. Outside the six-inch scanning area, on each side of these welds, meaningful examination is not possible due to the configuration.

With the existing accessibility, the 0-degree scan can be performed over the entire examination volume. Using a 45-degree scan, approximately 85% of the examination volume can be scanned from both sides of the weld with all of the volume scanned from at least one direction. The 60-degree scan has more significant limitations since a longer distance from the weld centerline is needed to perform the scan. Approximately 25% of the examination volume cannot be scanned from either direction with the 60-degree scan.

V. Alternate Examination: None.

VI. Justification for Granting Relief: Denial of this relief request would cause an excessive burden upon Georgia Power Company because it has been demonstrated that it is impractical to meet the Code-required volume for all of the angles. The ultrasonic examination of the volume with the 0-degree, 45-degree, and partial 60-degree scans will provide reasonable assurance that inservice flaws exceeding acceptance standards have not developed or that they will be detected and dispositioned prior to the return of the reactor vessel to service. Therefore, an acceptable level of quality and safety will be maintained and public health and safety will not be endangered by approving this relief request.

VII. Implementation Schedule: The relief request is applicable for the Third 10-Year Interval and close-out of the Second 10-Year Interval.

VIII. Relief Request Status: This is a new relief request awaiting NRC approval.

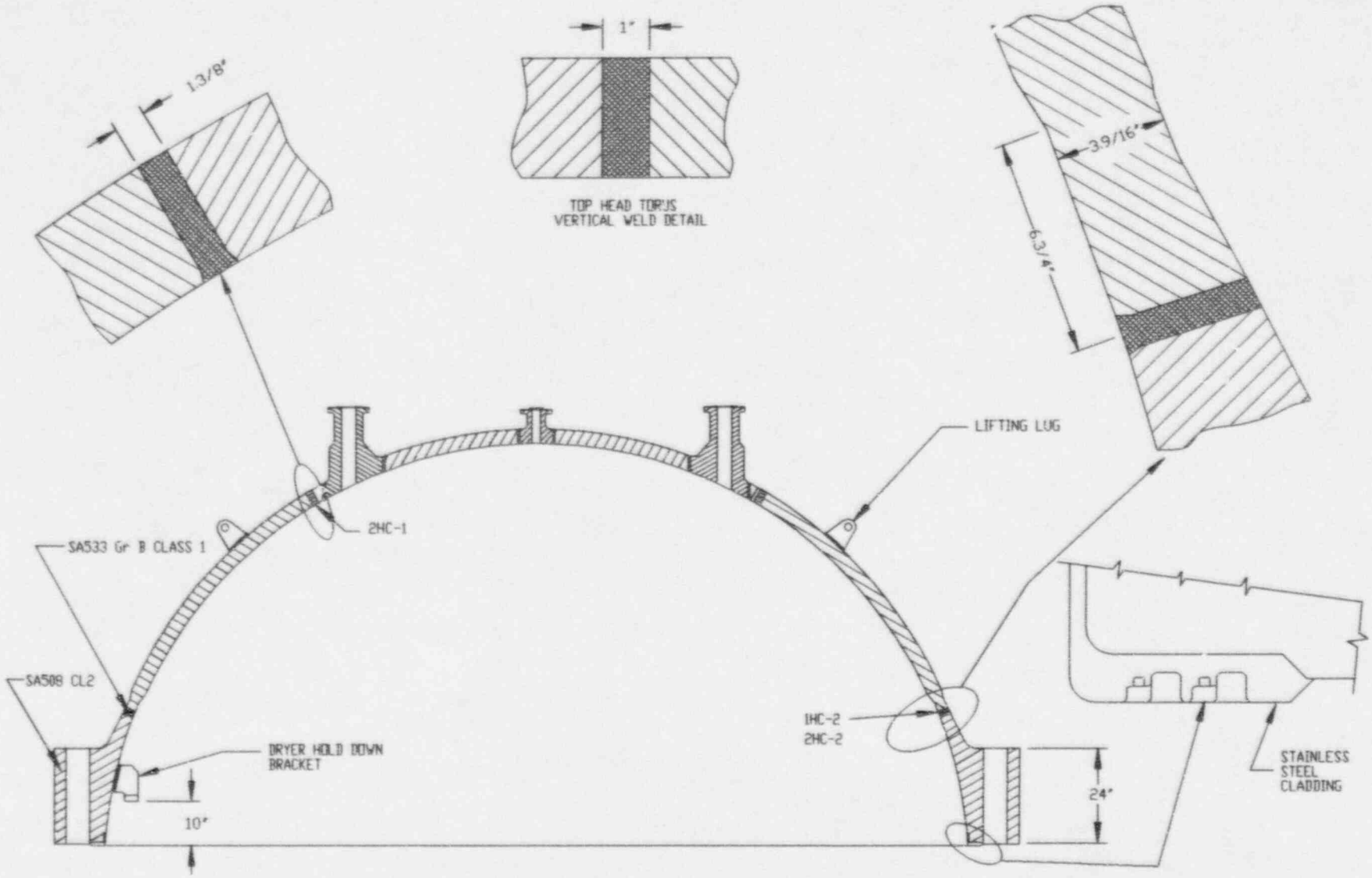

FIGURE 1

HATCH UNIT 1 AND 2-RPV TOP HEAD WELD DETAIL

RPVTOPHD

ATTACHMENT 5

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNIT 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-22

GEORGIA POWER COMPANY
HATCH NUCLEAR PLANT, UNIT 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-22

I. System/Component for Which Relief is Requested: Hatch Unit 2, Class 2, Residual Heat Removal (RHR) pump inlet nozzle-to-casing weld, Category C-G, Item No. C6.10.

II. Code Requirement: ASME Code, Section XI, Table IWC-2500-1, Examination Category C-G, Item No. C6.10 requires that a surface examination be conducted on the subject weld in accordance with the coverage shown in Figure IWC-2500-8.

III. Code Requirement for Which Relief is Requested: Limitations exist that preclude complete examination of the required surface area.

IV. Basis for Relief: These pumps are vertical pumps that are mounted in concrete with most of the pump exterior surface being completely inaccessible. The outlet nozzle is located near the top of the pump, so there is no access problem for this nozzle; however, the 24" diameter inlet nozzle is mounted on the side of the pump. Access was provided to the inlet nozzle and the incoming suction line by construction of an opening in the concrete at the side of the pump. This opening allows full access above and below the nozzle; however, the sides of the opening are close to the nozzle, resulting in limited access to the sides of the weld.

Approximately 60% (23" on the top and 23" on the bottom) of the total required examination area can be completely examined using the surface examination technique. Due to the above described access restrictions, the remaining 40% at the sides of the weld cannot be examined with surface examination methods; however, a visual examination (VT-1) of the limited access area can be performed.

V. Alternate Examination: Visual examination (VT-1) of the portion of the weld not receiving the surface examination.

VI. Justification for Granting Relief:: Surface examination of 60% of the required area in conjunction with a VT-1 examination of inaccessible areas should provide a reasonable assurance that inservice flaws of such size that they would challenge the structural integrity of the weld are not present.

Denial of this relief request would cause an excessive burden upon Georgia Power Company because it has been demonstrated that it is impractical to meet the Code requirements.

VII. Implementation Schedule: The relief request is applicable for the Third 10-Year Interval and close-out of the Second 10-Year Interval.

VIII. Relief Request Status: This is a new relief request awaiting NRC approval.