YANKEE ATOMIC ELECTRIC COMPANY

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January 15, 1997
BYR 97-002

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

Attention: Mr. Cass R. Chappell, Section Chief
Package Certification Section
Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards

References: (a) Docket No. 71-9262
(b) USNRC Letter to YAEC, dated February 6, 1996
(c) YAEC Letter to USNRC, dated March 23, 1995
(d) YAEC Letter to USNRC, dated November 14, 1996

Subject: YNPS Reactor Pressure Vessel (RPV) Package Safety Analysis Report (SAR) - Updated Drawing (Figure 1.2-1)

Dear Mr. Chappell,

In Reference (d), Yankee submitted a revision of our SAR for the YNPS RPV Package. The purpose of this revision was to present a reduction in density of the non-structural concrete fill. The reduction was necessary to reduce the overall package weight for rail shipment. On November 20, 1996, the reactor vessel was successfully removed from containment and placed into its shipping container. Subsequently, the vessel interior and annulus between vessel and cask were filled with concrete and the top cover welded in place in accordance with the SAR and NRC Certificate of Compliance (Reference (b)). This letter provides an updated drawing, Figure 1.2-1, reflecting the actual concrete density values within the package.

Based on the actual concrete densities, the resulting package weight is approximately 7 tons less than the projected 328 tons stated in the revised SAR (Reference (d)). Furthermore, based on a survey conducted on January 10, 1997, the package dose rates, both on contact and at 2 meters, meet the limits in 10CFR71.47(a), (c). These limits are 200mr/hr on contact and 10 mr/hr at 2 meters.

The actual concrete densities have been compared to those used in the revised SAR. Their impact on the thermal and structural analyses is determined to be negligible. The re-analysis presented in Reference (d), both thermal and structural, shows little impact resulting from the reduced concrete densities, primarily due to the small heat source of the package and overall strength of the package. The thermal performance of the package continues to meet the requirements of

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10CFR71. Since the structural analysis incorporates the weight of concrete, but takes no credit for its strength, the reduction in weight further increases the overall strength-to-weight ratio of the package.

Status/Schedule

On December 18, 1996, the cask was placed in the horizontal position under the containment for temporary storage during the winter. Shipment of the cask to Barnwell, S.C. is expected in the Spring of 1997.

Summary

This letter simply updates a drawing previously provided in Reference (d) based on the actual concrete densities. Overall package weight reductions have been successfully achieved. Actual dose rates for the package (surveyed January 10, 1997) demonstrate that the package meets the dose limits of 10CFR71.47. Conclusions of the thermal and structural analyses described in the SAR are unaffected by the reduction in concrete densities.

If you have any questions or desire additional information, please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

J. A. Kay
Principal Licensing Engineer

cc: Document Control Desk (1 original + 10 copies)
M. Fairtile, NRR
J. White, NRC - Region I

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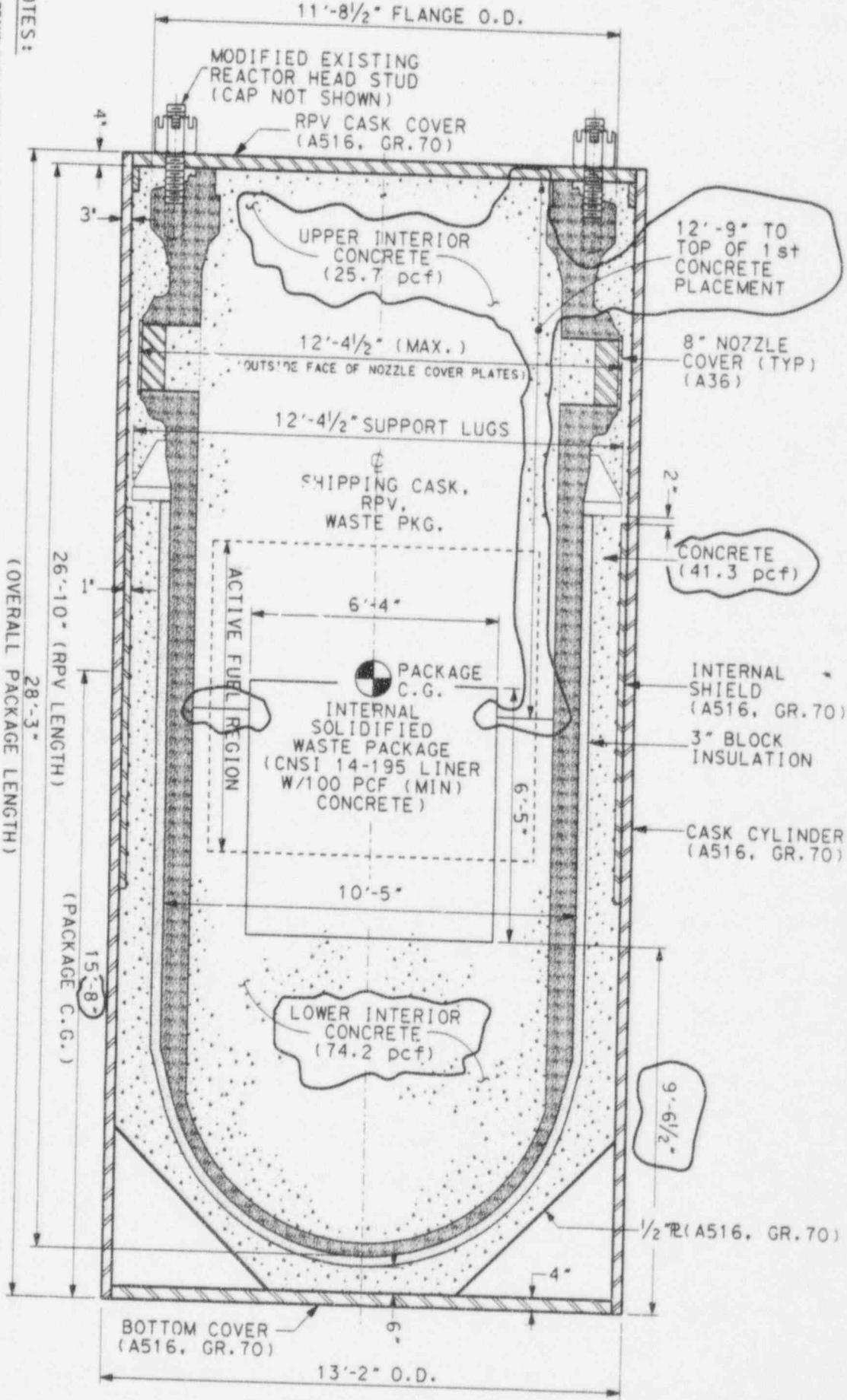
NOTES:

1. SHIPPING CASK MATERIALS OF CONSTRUCTION PROVIDED IN PARENTHESES ( ).
2. LIFTING CLEVIS TO BE REMOVED PRIOR TO OFF-SITE TRANSPORT OF LOADED CASK.
3. MATLS OF CONST.: 14-195 LINER: TOP & BOTTOM - A36 (5/16"), SIDES - A569 (11 GA.)
4. MAXIMUM LOADED PACKAGE WEIGHT: 328 TONS.



REV	DESCRIPTION	BY	CHKD.	APPD.	
3	REVISED TO AS-BUILT	WTT	CSD	JAC	11-5-96
2	REVISED FOR CONCRETE DENSITY AND CLEVIS CHGS.	WTT	DRL	JAK	11-6-96
					11-11-96

YANKEE ATOMIC ELECTRIC COMPANY
580 MAIN STREET BOLTON, MA.
NUCLEAR SERVICES DIVISION
FOR: YANKEE ATOMIC ELECTRIC CO.
ROWE, MA

JOB NO.

TITLE: FIG 1.2-1-YNPS RPV PACKAGE, ELEVATION CROSS SECTION

DWG. NO. YR-B-90-005

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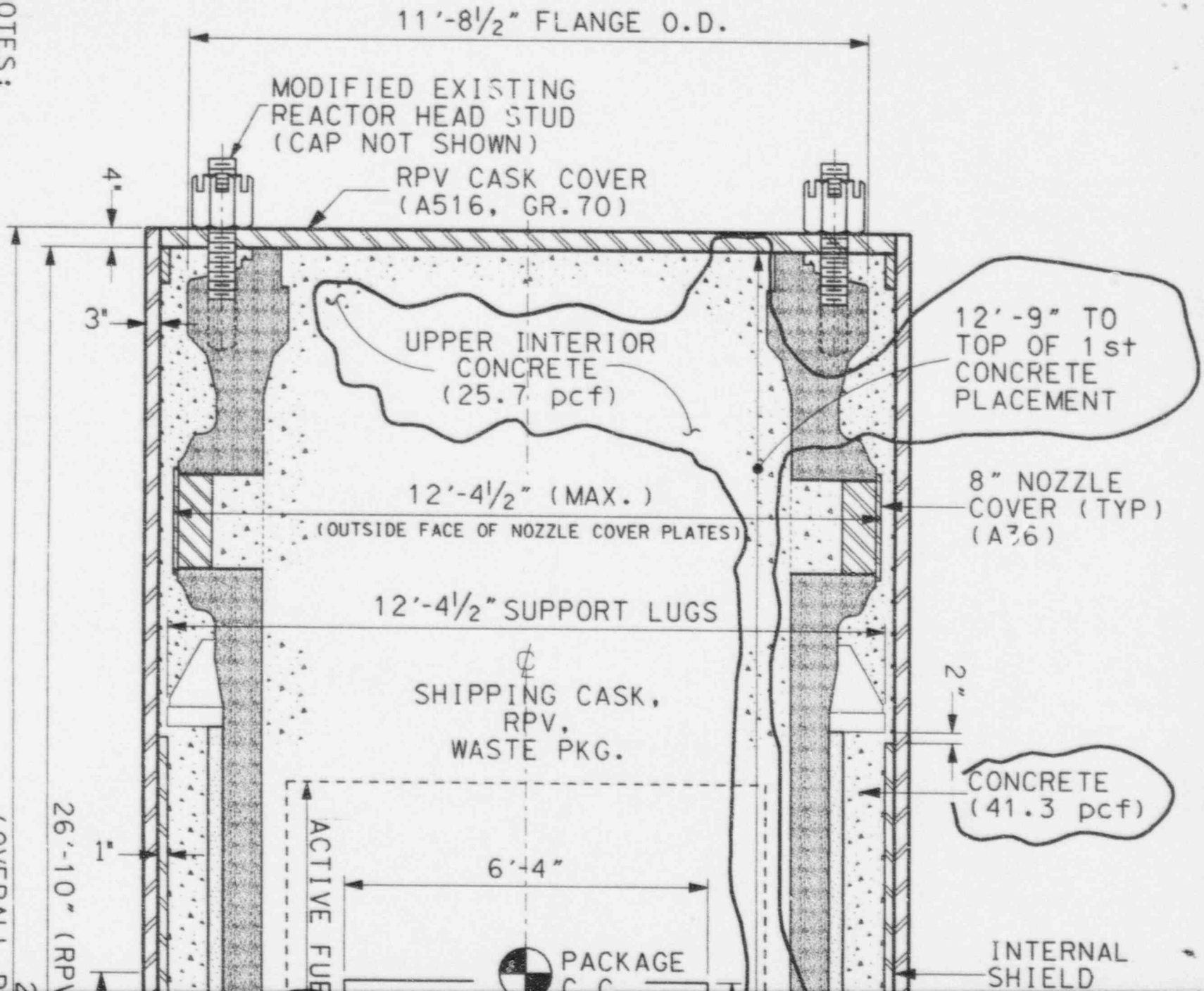

NOTES:

1. SHIPPING CASK MATERIALS OF CONSTRUCTION PROVIDED IN PARENTHESES ( ).
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REV	DESCRIPTION	BY	
3	REVISED TO AS-BUILT	WTT	1-15-97
2	REVISED FOR CONCRETE DENSITY AND CLEVIS CHGS.	WTT	11-8-96

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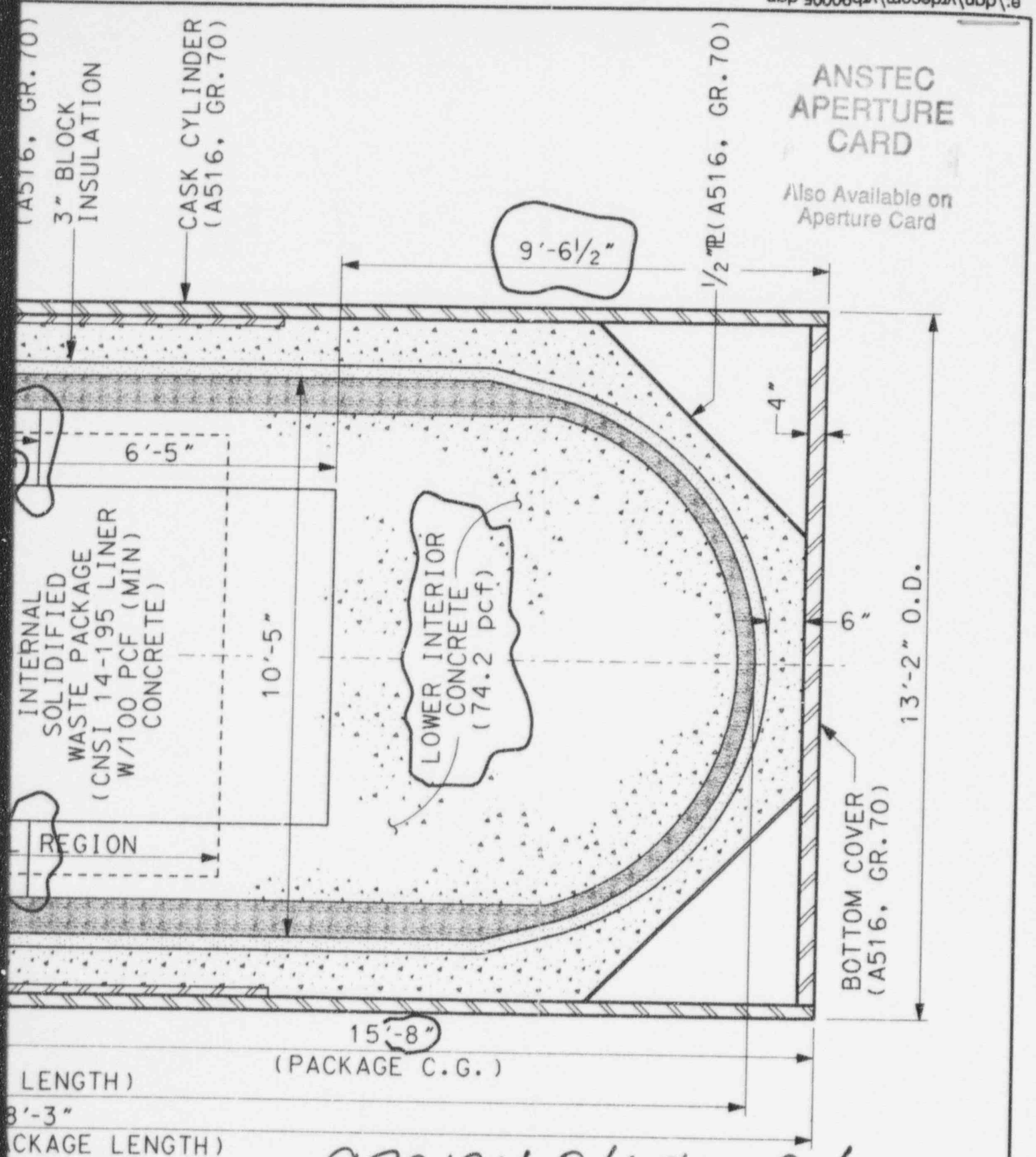

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1-16-97	1-15-97	YANKEE ATOMIC ELECTRIC COMPANY 580 MAIN STREET BOLTON, MA.	TITLE: FIG 1.2-1-YNPS RPV PACKAGE, ELEVATION CROSS SECTION
11-8-96	11-11-96	NUCLEAR SERVICES DIVISION	
DRL	JAK	FOR: YANKEE ATOMIC ELECTRIC CO. ROWE, MA	JOB NO. / DWG. NO. YR-B-90-005
CHKD.	APPD.		