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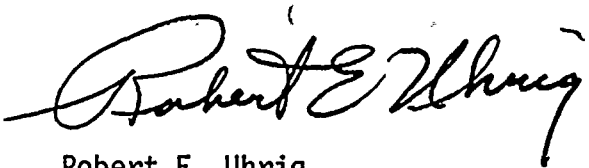
Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:JPO
50-250, 50-251
IE Bulletin 80-08

In response to the subject Bulletin, the attached report is submitted.

Very truly yours,



Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/md

cc: Director, Division of Reactor Construction Inspection
Harold F. Reis, Esquire

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FLORIDA POWER & LIGHT COMPANY
TURKEY POINT UNITS NO. 3 & 4

REPORT
ON

EXAMINATION OF CONTAINMENT LINER PENETRATION WELDS
(In Response to NRC IE Bulletin 80-08, April 7, 1980)

ITEM 1

Determine if your facility contains the flued head design for penetration connections, or other designs with containment boundary butt weld(s) between the penetration sleeve and process piping as illustrated in Figure NE 1120-1, Winter 1975 Addenda to the 1974 and later editions of the ASME B&PV Code.

RESPONSE

Figures 1 and 2 show the penetration details used on the Turkey Point Plant which are within the scope of Bulletin 80-08. Tables 1 and 2 indicate which containment penetrations are within the scope of this bulletin.

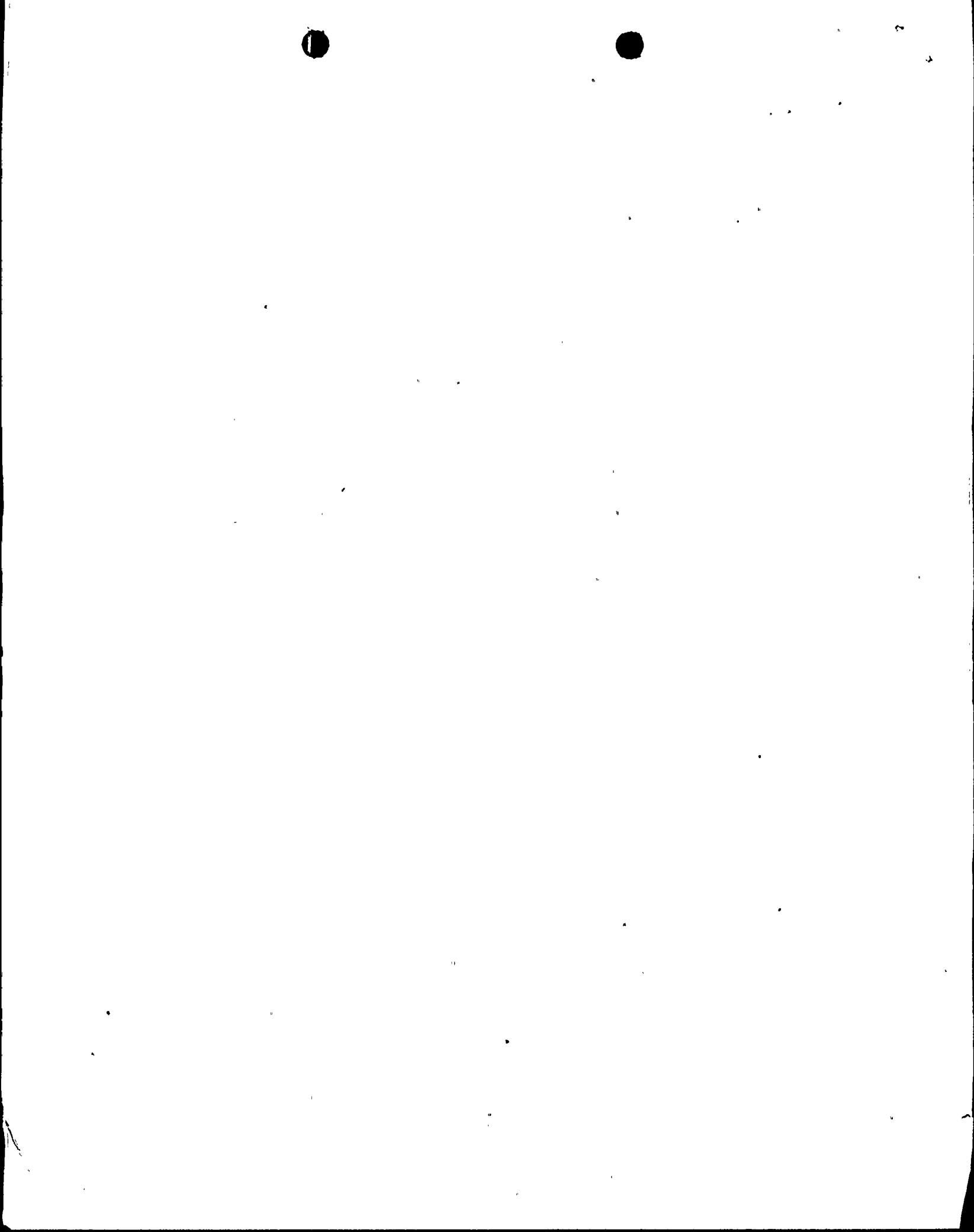
ITEM 2

If an affirmative answer is reached for Item 1, determine the following:

- a. Applicability of the ASME Code including year and addenda and/or Regulatory Guide 1.19.
- b. Type of nondestructive examinations performed during construction.
- c. Type of weld joint (including pipe material and size) and whether or not backing bars were used.
- d. Results of construction nondestructive examination, i.e., if repairs were required, this should be identified including extent of repairs and description of defects encountered during repair, if known.

RESPONSE

- 2(a) The design, construction, inspection and testing of the penetrations in the scope of this bulletin were required by specifications to be in accordance with Subsection B of Section III (Nuclear Vessels) of the ASME Boiler and Pressure Vessel Code (1965, with Summer 1966 Addenda). There is no FSAR commitment to meet the requirements of Regulatory Guide 1.19.



- 2(b) Tables 1 and 2 indicate the type of nondestructive examination performed during construction for penetration connections applicable to containment Units 3 and 4.
- 2(c) (i) All weld joints in the scope of this bulletin are containment boundary butt welds (See Figures 1 and 2 for types of butt welds specified).
- (ii) Use of backing bars is indicated in Tables 1 and 2.
- (iii) Pipe material was specified as follows:
- 1) Forging conforming to ASTM A-350 (Grade LF2), or
 - 2) Seamless pipe conforming to ASTM A-333, or
 - 3) Welded pipe conforming to ASTM A-155 (Grade KC70, Class I), with the exception that steel plate was required to conform to ASTM A-516 (Grade 70), firebox quality to ASTM A-300.
- For (1) (2) and (3), impact specimens were required to be of charpy V-notch type and to meet the requirements of ASME Code Section III, Paragraph N-1211(a) at a test temperature of 0° F.
- (iv) Fittings were specified to conform to ASTM A-234, Grade WPB, tested to ASTM A-300, except that the impact specimens were required to be of the charpy V-notch type and to meet the requirements of Paragraph N-1211(a) of Section III of the ASME Code at a test temperature of 0° F.
- (v) Casting materials were specified to meet the requirements of Paragraph N-1211(a) of Section III of the ASME Code.
- (vi) Pipe and reducer sizes for Units 3 and 4 are indicated in Tables 1 and 2, respectively.
- 2(d) The results of construction nondestructive examinations are tabulated in Tables 1 and 2 for Units 3 and 4, respectively. These tables include a qualitative description of the defects encountered, as determined from the radiographic test reports. All welds in which defects were encountered during testing were repaired, re-examined, and found to be acceptable. Penetrations for which records could not be located have been noted in Tables 1 and 2. The information noted above and listed in Tables 1 and 2 was obtained from a document search of files located at the Florida Power and Light Company Turkey Point Plant.

ITEM 3

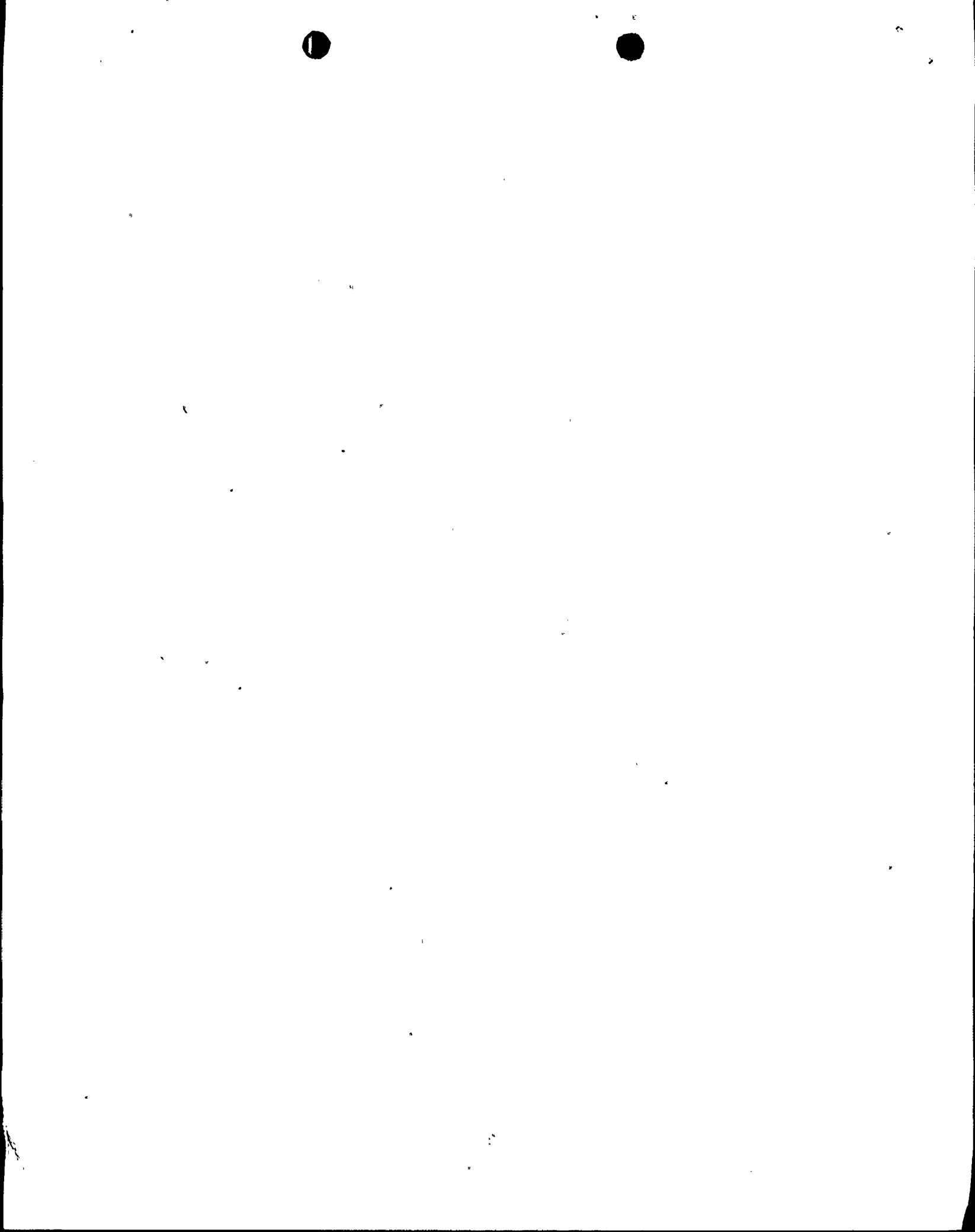
For those facilities committed during construction to perform volumetric examination of such penetrations through SAR commitments which have not performed radiography, justify not performing radiography or submit plans and schedules for performing radiographic examinations.

RESPONSE

As noted in the response to Item 2(d), and as shown in Tables 1 and 2, radiographic testing results could not be located for Unit 3 penetrations 22, 32, 37, 57, 61, and 63, and for Unit 4 penetrations 57 and 61. Radiograph Report logs indicate that radiographic testing was performed for Unit 3 penetrations 22 and 63; however, these test results could not be located. For both Units 3 and 4, penetration 57 is a spare penetration.

Further investigation has shown that Unit 4 penetrations 57 and 61A are enclosed on the inside of containment in a major concrete structure and as such are not used. Unit 4 penetration number 61B is shown on engineering drawings as being renumbered as number 46 which was tested and found acceptable.

We believe that similar dispositions can be made for the Unit 3 penetrations for which records could not be found. We intend to review these penetrations at the next Unit 3 shutdown of sufficient duration. We will then submit an update on our response to the Bulletin.



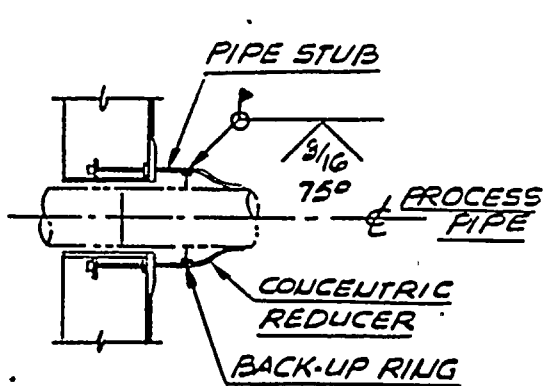
LIST OF ATTACHMENTS

Figure 1 - Types of Containment Penetrations

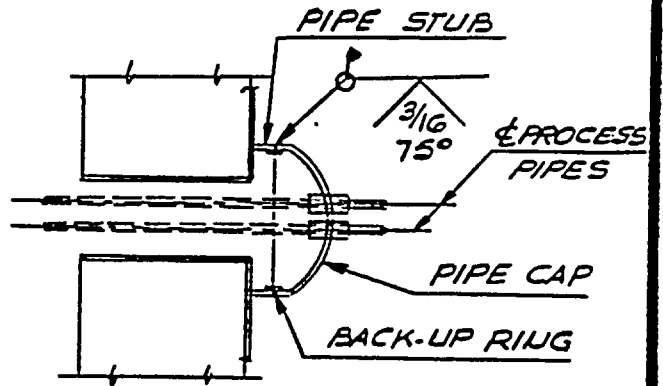
Figure 2 - Types of Containment Penetrations

Table 1 - Non-Destructive Examination of Containment Penetrations - Unit 3

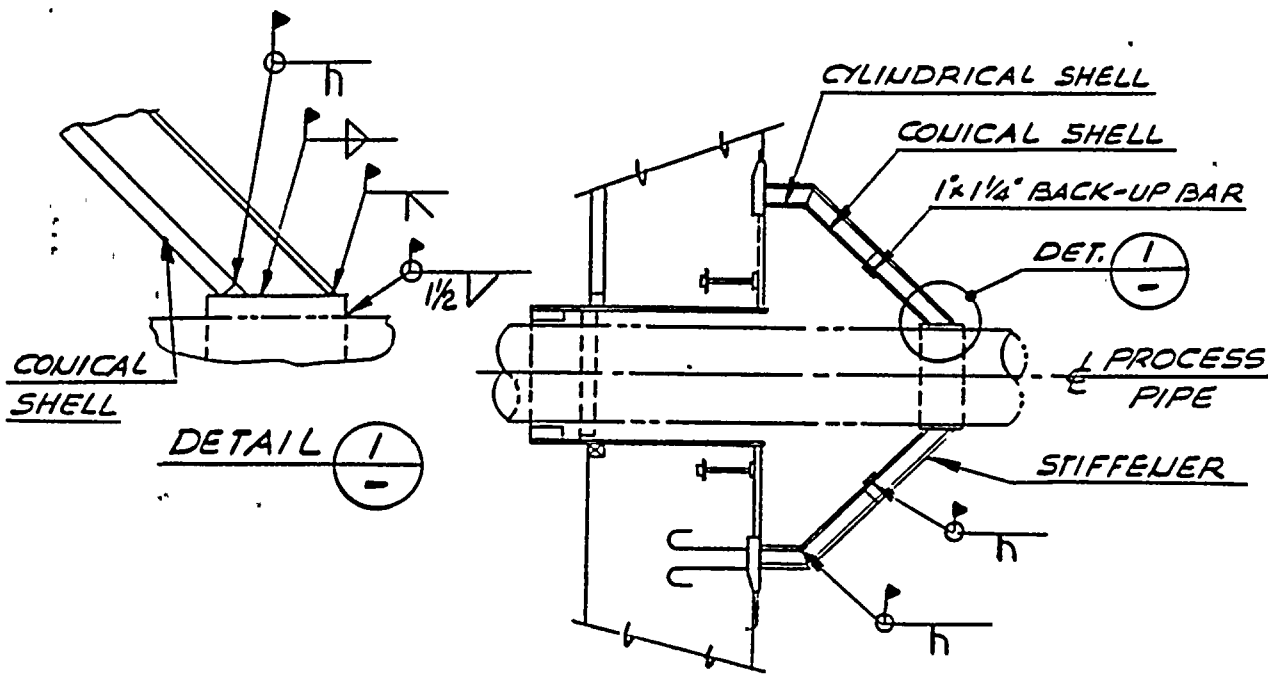
Table 2 - Non-Destructive Examination of Containment Penetrations - Unit 4



PENETRATION
TYPE I

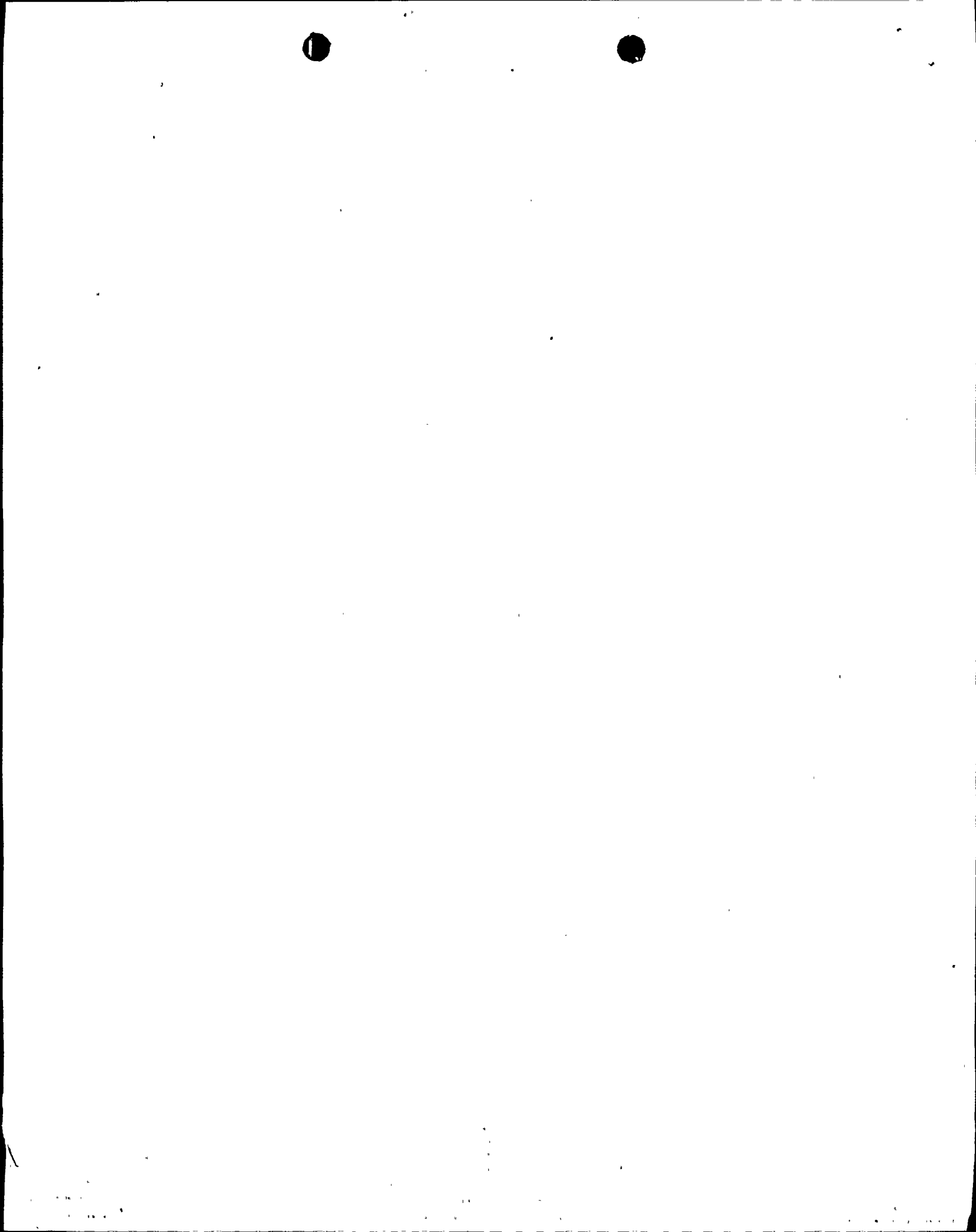


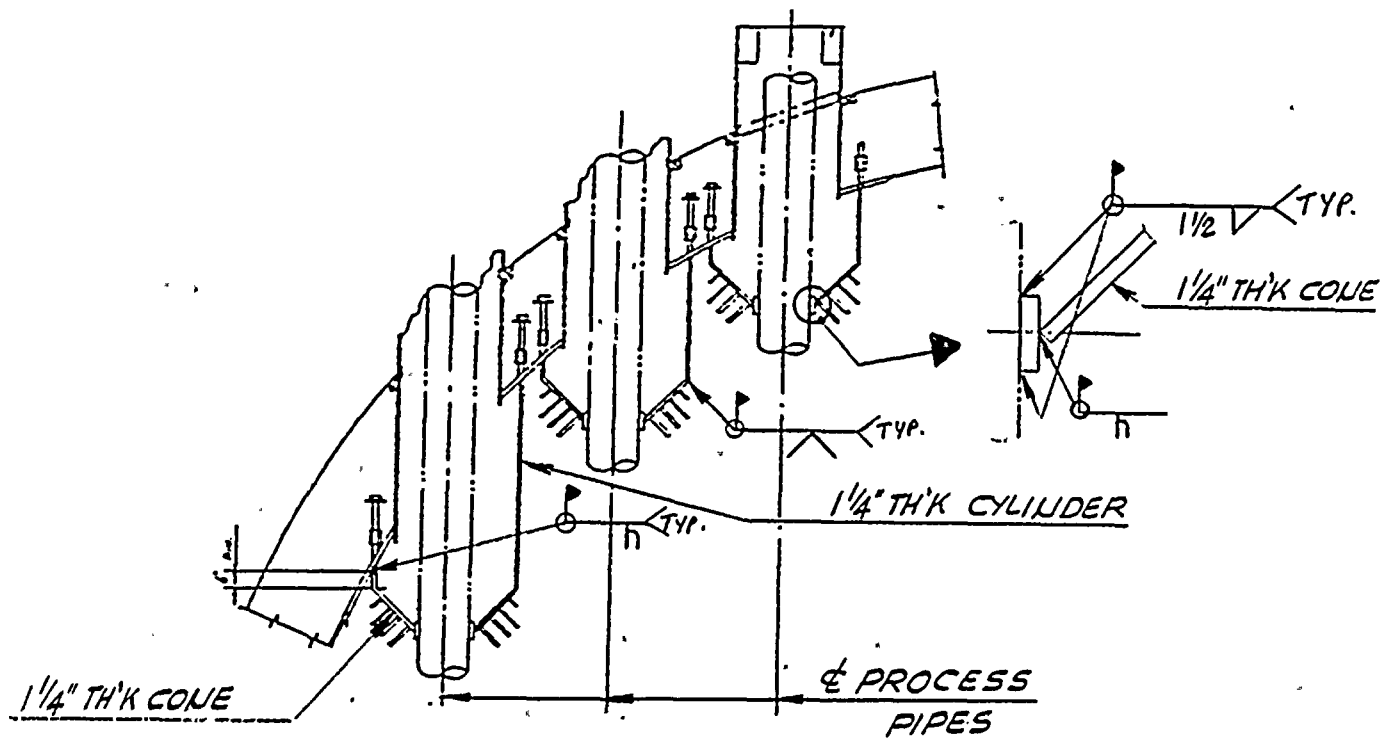
PENETRATION
TYPE II



MAIN STREAM PENETRATION
TYPE III

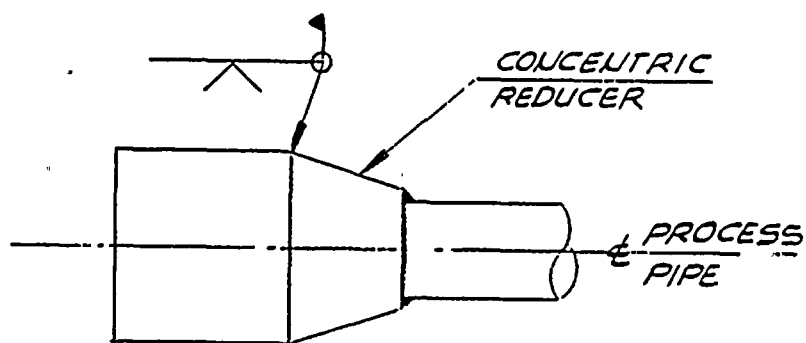
FIG. 1
TYPES OF CONTAINMENT PENETRATIONS





FEEOWATER PENETRATION

TYPE IV



PENETRATION
TYPE V

FIG. 2

TYPES OF CONTAINMENT PENETRATIONS

TABLE 1

NON-DESTRUCTIVE EXAMINATION OF CONTAINMENT PENETRATIONS - UNIT 3

CONTAINMENT PENETRATION NO.	TYPE OF PENETRATION DESIGN (SEE FIG. 162)	TYPE OF NDE PERFORMED	PENETRATION PIPE STUB DIAMETER	CONCENTRIC REDUCER OR NOZZLE SIZE LG. END DIAMETER X SM. END DIAMETER	WALL THICKNESS FOR PIPE STUB AND REDUCER	BACKING BARS (A36) USED FOR WELDING (1)	RESULTS OF RT	REMARKS
1	I	RT	24"	24" x 16"	XS	YES	ACCEPTABLE	Original radiographs and report which were rejected could not be located
2	I	RT	24"	24" x 16"	XS	YES	ACCEPTABLE	
3	I	RT	12"	12" x 8"	SCH. 160	YES	ACCEPTABLE	
4	I	RT	12"	12" x 8"	SCH. 160	YES	ACCEPTABLE	
5	II	RT	20"	PIPE CAP OR EQUAL	XS	YES	ACCEPTABLE	
6	II	RT	20"	PIPE CAP OR EQUAL	XS	YES	ACCEPTABLE	
7	I	RT	5"	5" x 4"	XS	YES	ACCEPTABLE	
8	II	RT	18"	PIPE CAP OR EQUAL	XS	YES	ACCEPTABLE	
9	II	RT	18"	PIPE CAP OR EQUAL	XS	YES	ACCEPTABLE	
10	I	RT	2-1/2"	2-1/2" x 1-1/4"	STD.	YES	ACCEPTABLE	
11	V	RT	16"	16" x 10"	XS	NO (2)	ACCEPTABLE	
12	I	RT	6"	6" x 4"	XS	YES	ACCEPTABLE	First test rejected (slag & porosity)-repaired, re-examined and found acceptable,
13	I	RT	6"	6" x 4"	XS	YES	ACCEPTABLE	
14	I	RT	12"	12" x 2"	SCH. 80	YES	ACCEPTABLE	
15	I	RT	6"	6" x 5"	XXS	YES	ACCEPTABLE	
16	V	RT	10"	10" x 8"	SCH. 160	NO (2)	ACCEPTABLE	

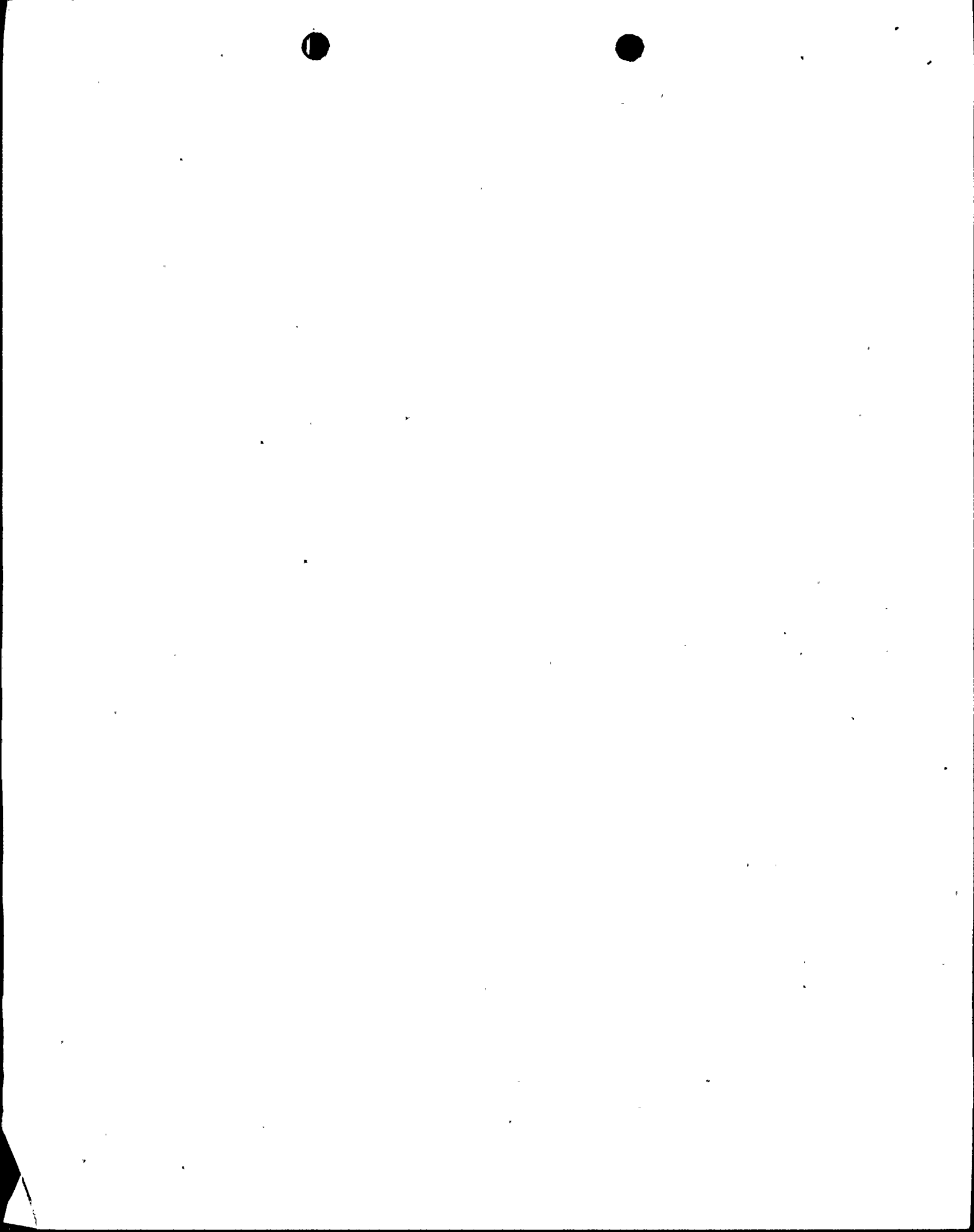


TABLE 1 - CONTINUED
NON-DESTRUCTIVE EXAMINATION OF CONTAINMENT PENETRATIONS - UNIT 3

CONTAINMENT PENETRATION NO.	TYPE OF PENETRATION DESIGN (SEE FIG. 162)	TYPE OF NON-DESTRUCTIVE EXAM PERFORMED	PENETRATION PIPE STUB DIAMETER	CONCENTRIC REDUCER OR NOZZLE SIZE LG. END DIAMETER X SM. END DIAMETER	WALL THICKNESS FOR PIPE STUB AND REDUCER	BACKING BARS (A36) USED FOR WELDING (1)	RESULTS OF RT	REMARKS
17	I	RT	2-1/2"	2-1/2" x 1-1/4"	XS	YES	ACCEPTABLE	
18	I	RT	12"	12" x 4"	SCH. 160	YES	ACCEPTABLE	
19	I	RT	12"	12" x 10"	XS	YES	ACCEPTABLE	
20	II	RT	18"	PIPE CAP	XS	YES	ACCEPTABLE	
21	I	RT	16"	16" x 12"	XS	YES	ACCEPTABLE	
22	I	--	16"	16" x 12"	XS	YES	RECORDS COULD NOT BE LOCATED	Log indicates that RT was performed.
23	I	RT	5"	5" x 4"	XS	YES	ACCEPTABLE	
24	I	RT	5"	5" x 4"	XXS	YES	ACCEPTABLE	First test rejected (incomplete fusion) repaired, re-examined and found acceptable.
25	I	RT	8"	8" x 4"	XS	YES	ACCEPTABLE	
26	III	RT	5'-9-1/8" (OD) (Cylindrical Shell)	5'-9-1/8" x 2'-2" (Conical Shell)	1-1/4"	YES	ACCEPTABLE	First test rejected (slag inclusion) repaired, re-examined and found acceptable.
27	IV	RT	4'-0" (OD) (Cylindrical Shell)	4'-0" x 1'-2" (Conical Shell)	1-1/4"	NO	ACCEPTABLE	First test rejected for one penetration (slag inclusion) repaired, re-examined & found acceptable.
28	II	RT	12"	PIPE CAP	XS	YES	ACCEPTABLE	First test rejected for one penetration (incomplete fusion) repaired, re-examined & found acceptable.
29	I	RT	5"	5" x 3"	XS	YES	ACCEPTABLE	
30	I	RT	5"	5" x 3"	XS	YES	ACCEPTABLE	First test rejected (reason not noted) repaired, re-examined & found acceptable.
31	II	RT	18"	PIPE CAP OR EQUAL	XS	YES	ACCEPTABLE	
32	I	--	3"	3" x 1-1/2"	XS	YES	RECORDS COULD NOT BE LOCATED.	

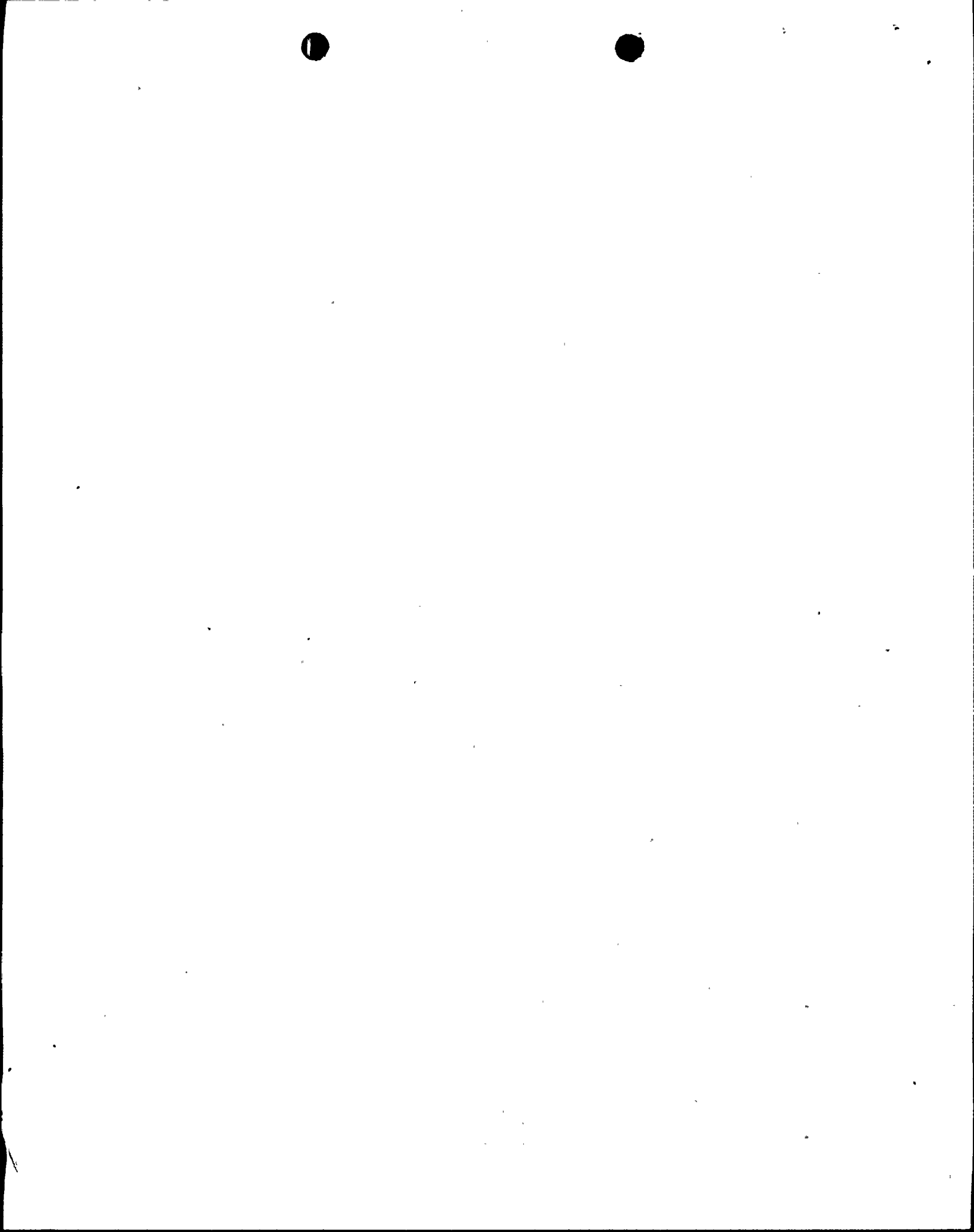


TABLE 1 - CONTINUED

NON-DESTRUCTIVE EXAMINATION OF CONTAINMENT PENETRATIONS - UNIT 3

CONTAINMENT PENETRATION NO.	TYPE OF PENETRATION DESIGN (SEE FIG. 162)	TYPE OF NON-DESTRUCTIVE EXAM. PERFORMED	PENETRATION PIPE STUB DIAMETER	CONCENTRIC REDUCER OR NOZZLE SIZE LG. END DIAMETER X SH. END DIAMETER	WALL THICKNESS FOR PIPE STUB AND REDUCER	BACKING BARS (A36) USED FOR WELDING (1)	RESULTS OF RT	REMARKS
33	I	RT	3"	3" x 1-1/2"	XS	YES	ACCEPTABLE	
34	I	RT	10"	10" x 6"	SCH. 160	YES	ACCEPTABLE	
37	II	--	2"	PIPE CAP	SCH. 40	YES	RECORDS COULD NOT BE LOCATED.	
42	I	RT	3"	3" x 1-1/2"	XS	YES	ACCEPTABLE	
43	I	RT	6"	6" x 5"	XXS	YES	ACCEPTABLE	
44	I	RT	16"	16" x 10"	XS	YES	ACCEPTABLE	
45	I	RT	16"	16" x 10"	XS	YES	ACCEPTABLE	
46	I	RT	3"	3" x 1-1/2"	XS	YES	ACCEPTABLE	First test rejected for one penetration (root concavity & lack of fusion) repaired, re-examined & found acceptable.
47	I	RT	5"	5" x 3"	XS	YES	ACCEPTABLE	
51	I	RT	20"	20" x 14"	XS	YES	ACCEPTABLE	
52	I	RT	6"	6" x 4"	XS	YES	ACCEPTABLE	
53	V	RT	10"	10" x 8"	SCH. 160	NO (2)	ACCEPTABLE	
55	II	RT	18"	PIPE CAP	XS	YES	ACCEPTABLE	
56	II	RT	18"	PIPE CAP	XS	YES	ACCEPTABLE	
57	I	--	5"	5" x 3"	XS	YES	RECORDS COULD NOT BE LOCATED.	Spare penetration
58	I	RT	10"	10" x 2-1/2"	SCH. 160	YES	ACCEPTABLE	



TABLE 2

NON-DESTRUCTIVE EXAMINATION OF CONTAINMENT PENETRATIONS - UNIT 4

CONTAINMENT PENETRATION NO.	TYPE OF PENETRATION DESIGN (SEE FIG. 162)	TYPE OF NDE PERFORMED	PENETRATION PIPE STUB DIAMETER	CONCENTRIC REDUCER OR NOZZLE SIZE LG. END DIAMETER X SH. END DIAMETER	WALL THICKNESS FOR PIPE STUB AND REDUCER	BACKING BAR (A36) USED FOR WELDING	RESULTS OF RT	REMARKS
1	I	RT	24"	24" x 16"	XS	YES	ACCEPTABLE	First test rejected (slag)-repaired, re-examined & found acceptable.
2	I	RT	24"	24" x 16"	XS	YES	ACCEPTABLE	
3	I	RT	12"	12" x 8"	SCH. 160	YES	ACCEPTABLE	
4	I	RT	12"	12" x 8"	SCH. 160	YES	ACCEPTABLE	
5	II	RT	20"	PIPE CAP OR EQUIV.	XS	YES	ACCEPTABLE	First test rejected (lack of fusion & lack of penetration)-repaired, re-examined & found acceptable.
6	II	RT	20"	PIPE CAP OR EQUIV.	XS	YES	ACCEPTABLE	First test rejected (lack of fusion & lack of penetration)-repaired, re-examined & found acceptable.
7	I	RT	5"	5" x 4"	XS	YES	ACCEPTABLE	
8	II	RT	18"	PIPE CAP OR EQUIV.	XS	YES	ACCEPTABLE	First test rejected (lack of penetration)-repaired, re-examined & found acceptable.
9	II	RT	18"	PIPE CAP OR EQUIV.	XS	YES	ACCEPTABLE	First test rejected (lack of penetration)-repaired, re-examined & found acceptable.
10	I	RT	2-1/2"	2-1/2" x 1-1/4"	STD.	YES	ACCEPTABLE	
11	I	RT	16"	16" x 10"	XS	YES	ACCEPTABLE	
12	I	RT	6"	6" x 4"	XS	YES	ACCEPTABLE	
13	I	RT	6"	6" x 4"	XS	YES	ACCEPTABLE	First test rejected (porosity)-repaired, re-examined & found acceptable.
14	I	RT	12"	12" x 2"	SCH. 80	YES	ACCEPTABLE	
15	I	RT	6"	6" x 5"	XXS	YES	ACCEPTABLE	
16	I	RT	12"	12" x 8"	SCH. 160	YES	ACCEPTABLE	

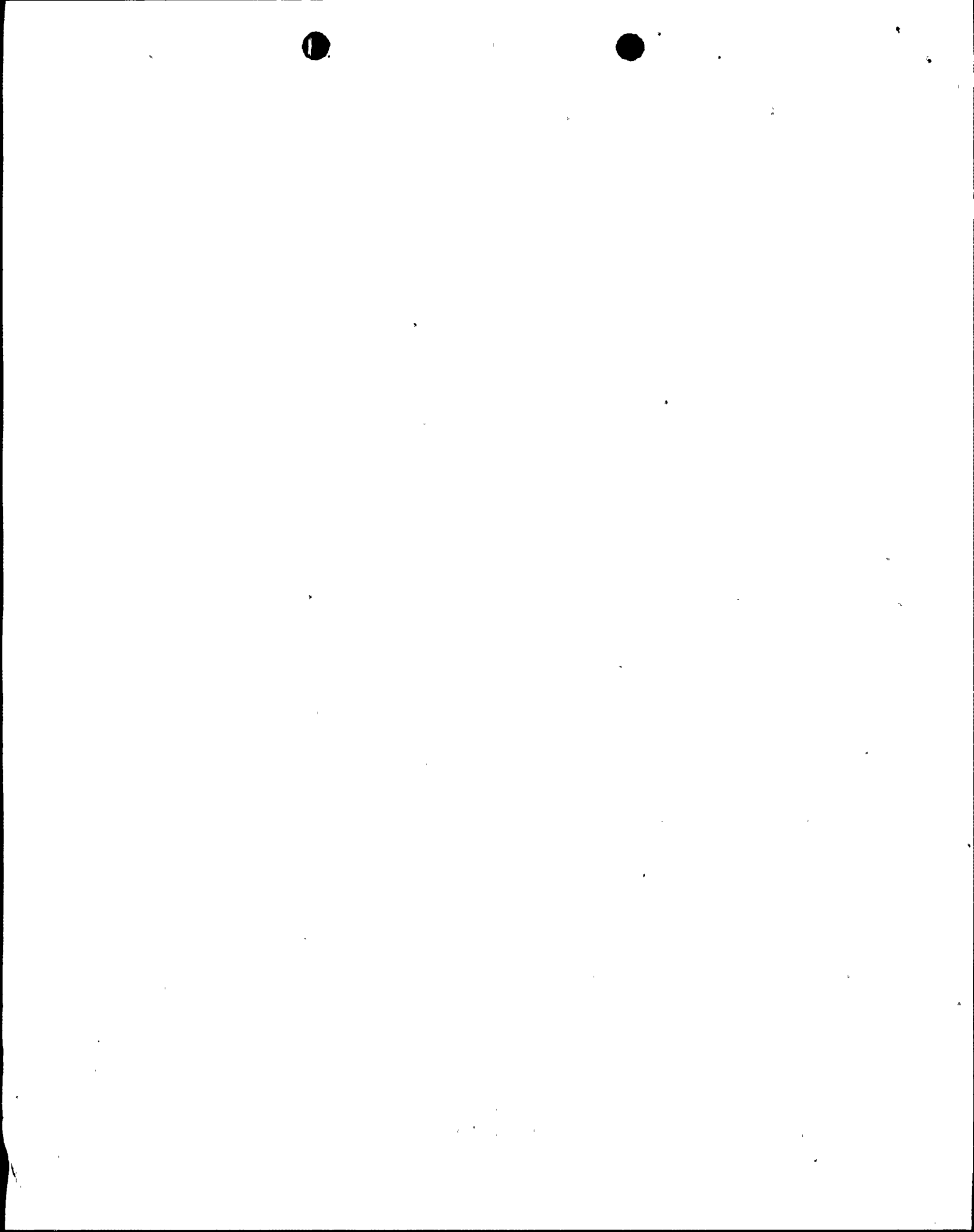


TABLE 2 - CONTINUED
 NON-DESTRUCTIVE EXAMINATION OF CONTAINMENT PENETRATIONS - UNIT 4

CONTAINMENT PENETRATION NO.	TYPE OF PENETRATION DESIGN (SEE FIG. 162)	TYPE OF NON-DESTRUCTIVE EXAM. PERFORMED	PENETRATION PIPE STUB DIAMETER	CONCENTRIC REDUCER OR NOZZLE SIZE LG. END DIAMETER X SH. END DIAMETER	WALL THICKNESS FOR PIPE STUB AND REDUCER	BACKING BARS (A36) USED FOR WELDING	RESULTS OF RT	REMARKS
17	I	RT	2-1/2"	2-1/2" x 1-1/4"	XS	YES	ACCEPTABLE	
18	I	RT	12"	12" x 4"	SCH. 160	YES	ACCEPTABLE	
19	I	RT	12"	12" x 10"	XS	YES	ACCEPTABLE	
20	II	RT	18"	PIPE CAP	XS	YES	ACCEPTABLE	First test rejected (lack of penetration) repaired, re-examined & found acceptable.
21	I	RT	16"	16" x 12"	XS	YES	ACCEPTABLE	
22	I	RT	16"	16" x 12"	XS	YES	ACCEPTABLE	
23	I	RT	5"	5" x 4"	XS	YES	ACCEPTABLE	
24	I	RT	5"	5" x 4"	XXS	YES	ACCEPTABLE	First test rejected one penetration (loss of material) repaired, re-examined & found acceptable.
25	I	RT	8"	8" x 4"	XS	YES	ACCEPTABLE	
26	III	RT	5'-9-1/8" (OD) (cylindrical shell)	5'-9-1/8" x 2'-2" (conical shell)	1-1/4"	YES	ACCEPTABLE	First test rejected two penetrations (slag) repaired, re-examined & found acceptable.
27	IV	RT	4'-0" OD (cylindrical shell)	4'-0" x 1'-2" (conical shell)	1-1/4"	NO	ACCEPTABLE	First test rejected one penetration (slag) repaired, re-examined & found acceptable.
28	II	RT	12"	PIPE CAP	XS	YES	ACCEPTABLE	
29	I	RT	5"	5" x 3"	XS	YES	ACCEPTABLE	
30	I	RT	5"	5" x 3"	XS	YES	ACCEPTABLE	
31	II	RT	18"	PIPE CAP OR EQUIV.	XS	YES	ACCEPTABLE	
32	I	RT	3"	3" x 1-1/2"	XS	YES	ACCEPTABLE	

TABLE 2 - CONTINUED
 NON-DESTRUCTIVE EXAMINATION OF CONTAINMENT PENETRATIONS - UNIT 4

CONTAINMENT PENETRATION NO.	TYPE OF PENETRATION DESIGN (SEE FIG. 162)	TYPE OF NON-DESTRUCTIVE EXAM. PERFORMED	PENETRATION PIPE STUB DIAMETER	CONCENTRIC REDUCER OR NOZZLE SIZE LG. END DIAMETER X SM. END DIAMETER	WALL THICKNESS FOR PIPE STUB AND REDUCER	BACKING BARS (A36) USED FOR WELDING	RESULTS OF RT	REMARKS
33	I	RT	3"	3" x 1-1/2"	XS	YES	ACCEPTABLE	First test rejected (lack of penetration) repaired, re-examined & found acceptable.
34	I	RT	10"	10" x 6"	SCH. 160	YES	ACCEPTABLE	
37	II	RT	2"	PIPE CAP	SCH. 40	YES	ACCEPTABLE	
42	I	RT	3"	3" x 1-1/2"	XS	YES	ACCEPTABLE	
43	I	RT	6"	6" x 5"	XXS	YES	ACCEPTABLE	
44	I	RT	16"	16" x 10"	XS	YES	ACCEPTABLE	
45	I	RT	16"	16" x 10"	XS	YES	ACCEPTABLE	First test rejected two penetrations (slag & porosity) repaired, re-examined & found acceptable.
46	I	RT	3"	3" x 1-1/2"	XS	YES	ACCEPTABLE	
47	I	RT	5"	5" x 3"	XS	YES	ACCEPTABLE	
51	I	RT	20"	20" x 14"	XS	YES	ACCEPTABLE	First test rejected (slag & lack of penetration) repaired, re-examined & found acceptable.
52	I	RT	6"	6" x 4"	XS	YES	ACCEPTABLE	First test rejected (slag) - Repaired, re-examined & found acceptable.
53	I	RT	12"	12" x 8"	SCH. 160	YES	ACCEPTABLE	
55	II	RT	18"	PIPE CAP	XS	YES	ACCEPTABLE	
56	II	RT	18"	PIPE CAP	XS	YES	ACCEPTABLE	
57	I	—	5"	5" x 3"	XS	YES	RECORDS COULD NOT BE LOCATED.	Spare penetration



