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ACCESSION NBR: 8503070339 DOC. DATE: 85/02/28 NOTARIZED: NO
 FACIL: 50-269 Oconee Nuclear Station, Unit 1, Duke Power Co.
 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co.
 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co.

DOCKET #
 05000269
 05000270
 05000287

AUTH. NAME: TUCKER, H. B. AUTHOR AFFILIATION: Duke Power Co.
 RECIPIENT NAME: DENTON, H. R. RECIPIENT AFFILIATION: Office of Nuclear Reactor Regulation, Director
 STOLZ, J. F. Operating Reactors Branch 4

SUBJECT: Forwards response to requests for addl info re 831111 & 840814 requests for exemptions to 10CFR50, App R, per 850103 telcon. w/seven oversize drawings, including one illegible. Aperture cards available in PDR.

DISTRIBUTION CODE: A006D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 34+6
 TITLE: OR Submittal: Fire Protection

NOTES: AEOD/Ornstein: 1cy. 05000269
 OL: 02/06/73
 AEOD/Ornstein: 1cy. 05000270
 OL: 10/06/73
 AEOD/Ornstein: 1cy. 05000287
 OL: 07/19/74

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
NRR ORB4 BC 01	3 3		

INTERNAL: ACRS 11	3 3	ADM/LFMB	1 0
ELD/HDS4	1 0	IE WHITNEY, L	1 1
NRR HOLONICH 07	2 2	NRR WAMBACH 06	1 0
NRR/DE/CEB 09	2 2	NRR/DL DIR	1 1
<u>REG FILE</u> 04	1 1	RGN2	1 1
EXTERNAL: LPDR 03	1 1	NRC PDR 02	1 1
NSIC 05	1 1		

NOTES: 1 1

Aperture Card Dist.
 Drawings to: H. Nicolaras
 ORB #4

DUKE POWER COMPANY

P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

February 28, 1985

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. J. F. Stolz, Chief
Operating Reactors Branch No. 4

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

By letter dated October 24, 1983, Duke Power Company requested an exemption to 10 CFR 50, Appendix R, and indicated that as a result of an on-going interval review, additional exemption requests would be forthcoming. Accordingly, additional exemption requests were submitted by my letters dated November 11, 1983 and August 14, 1984.

On January 3, 1985 a conference call was held between members of my staff and your staff to discuss Duke's exemption requests submitted by the November 11, 1983 and August 14, 1984 letters. During the conference call, your staff requested additional information in order to assist them in completing their review of the exemption requests. Pursuant to this request, Enclosure 1 and Enclosure 2 (Attached) provide the additional information. This information should enable the staff to complete their review of the exemption requests.

In addition, by a letter dated September 21, 1984, Duke advised the NRC that a test of a "mock-up" of the fire barrier wall separating the east and west penetration rooms at Oconee Nuclear Station (the wall) was being performed in order to qualify it as a three-hour fire rated barrier. The test report which documents the results of this test is currently being prepared. The test report will be transmitted to the NRC for their review when it becomes available. At which time, exemption requests 1 and 2 of the November 11, 1983 submittal will be formally withdrawn, inasmuch as the configuration now has been explicitly tested.

Very truly yours,

H.B. Tucker

Hal B. Tucker

PFG:slb

8503070339 850228
PDR ADOCK 05000269
F PDR

Enclosure

*Agreement
Card Dist.
Drawings
To: H. Nicolaras
OKB#A*

Mr. Harold R. Denton, Director
February 26, 1985
Page Two

cc: Ms. Helen Nicolaras
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. J. C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

ENCLOSURE 1

Duke Power Company
Oconee Nuclear Station

Request for Additional Information Concerning
the November 11, 1983 Exemption Request to
10CFR50, Appendix R, Section III.G.2

Exemption Request 1 and 2 - additional information

Duke has conducted a fire endurance test of a pyrocrete wall assembly similar to the tube steel/pyrocrete walls constructed to separate East/West Penetration rooms at each unit. With addition of through-bolts in Mechanical and Electrical Penetration Seals, the assemblies will meet Appendix R requirements (Section III.M). Duke intends to modify the wall for each unit to install the through-bolts. When the test report is submitted to the NRC, Exemption Requests 1 and 2 will be withdrawn.

Exemption Request 3 - additional information

Item #3

Attached (Attachment 1) are two elevation drawings and one plan view drawing (at elevation 809'+0) showing location of cork filler material in the seismic expansion joint. Duke is requesting exemption from requirements of Appendix R, Section III.G.2.a, for separation of the East/West Penetration rooms.

Cork filler is installed in the seismic expansion joint between Auxiliary Building floor slabs and the Reactor Building wall. A three hour fire resistive wall assembly has been constructed to separate East/West Penetration rooms. Cork is embedded in concrete slabs above and below the wall assembly adjacent to Reactor Building walls. There are three inches of exposed cork surface. In other areas on the elevation beneath the wall which separates the East/West Penetration rooms for each unit, automatic sprinklers are provided which mitigate the possibility of fire spread from the area below. There are no in situ combustible material in close proximity to the cork filler material as it passes above the below the wall separating East/West Penetration rooms, which would contribute to the possibility of igniting cork material. Penetration rooms are large volume areas with about 25 foot ceilings, in which case heat from a fire plume in either Penetration room would tend to expand throughout the area and be dissipated rather than concentrating at the three inches of exposed cork filler material.

In addition, the area above East/West Penetration rooms contains air handling equipment. The combustible loading is small (consisting of exposed plastic cable insulation for fan motors, lights, etc.). There are no combustible materials in close proximity to the three inches of exposed cork which could contribute to ignition of the cork. Thus, a fire is not expected to spread between redundant Penetration rooms via cork embedded in floor and ceiling slabs above and beneath the fire-rated wall which separates the East/West Penetration rooms. Fire hoses and portable fire extinguishers are available to suppress a fire in this area.

Exemption Request 4 - additional information

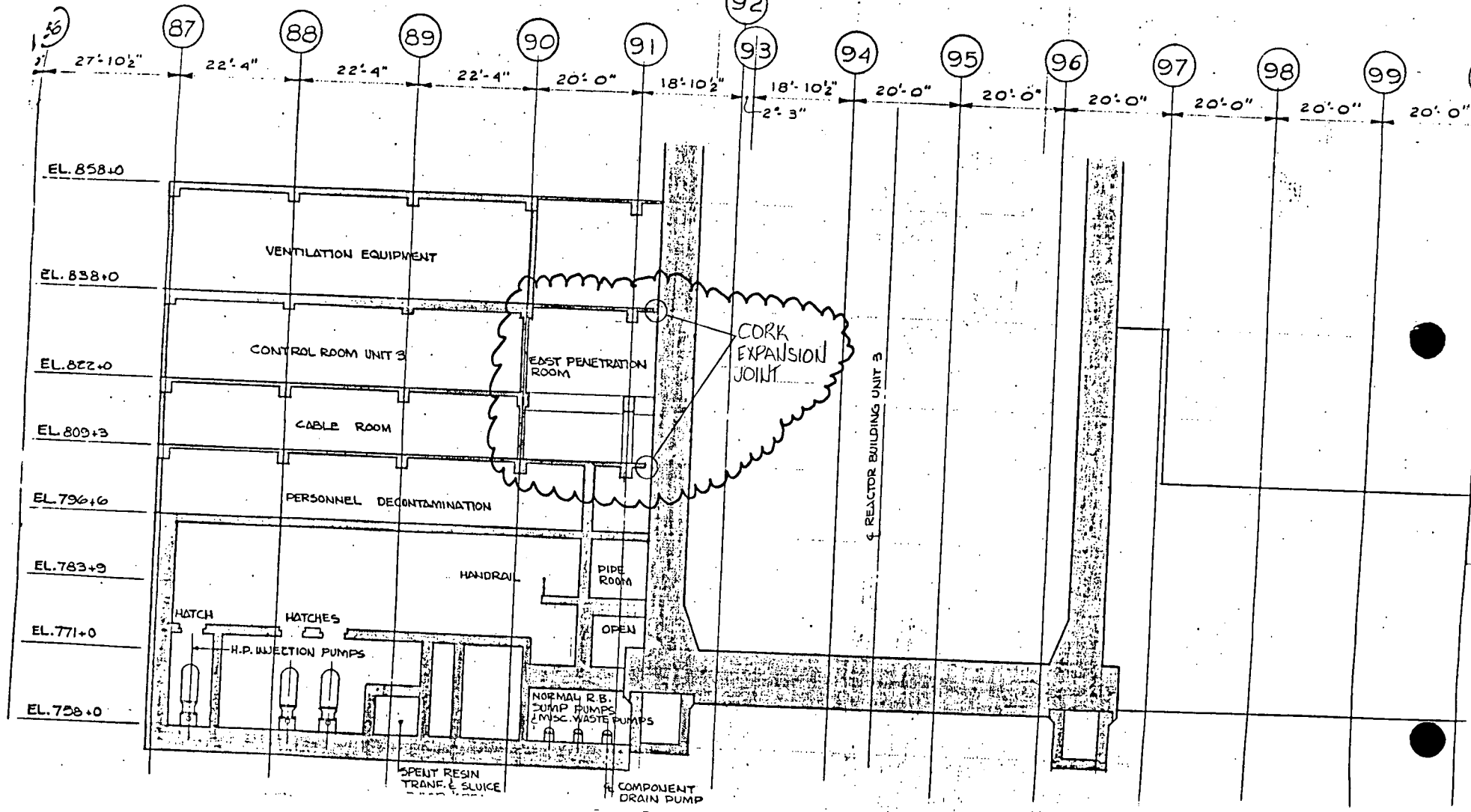
A detailed description was provided by a April 30, 1981 letter from H. B. Tucker to H. R. Denton and in the November 11, 1983 letter. During a March 29, 1983 meeting in Bethesda, Maryland between Duke and NRC, photographs were reviewed but were not provided. These photographs showed the Standby Shutdown facility (SSF) cable arrangement, location of equipment and cable in the Unit 3 Reactor Building. The photographs reviewed during the March 29, 1983 meeting are attached (Attachment 2). Attachment 3 provides a set of drawings marked to identify the location of the photograph and a brief description of each photo-graph.

Based on the above information and previously provided information, an exemption from the requirements of Appendix R, Section III.G.2.d is appropriate. In particular, this pertains to request for exemption from requirements of Appendix R for:

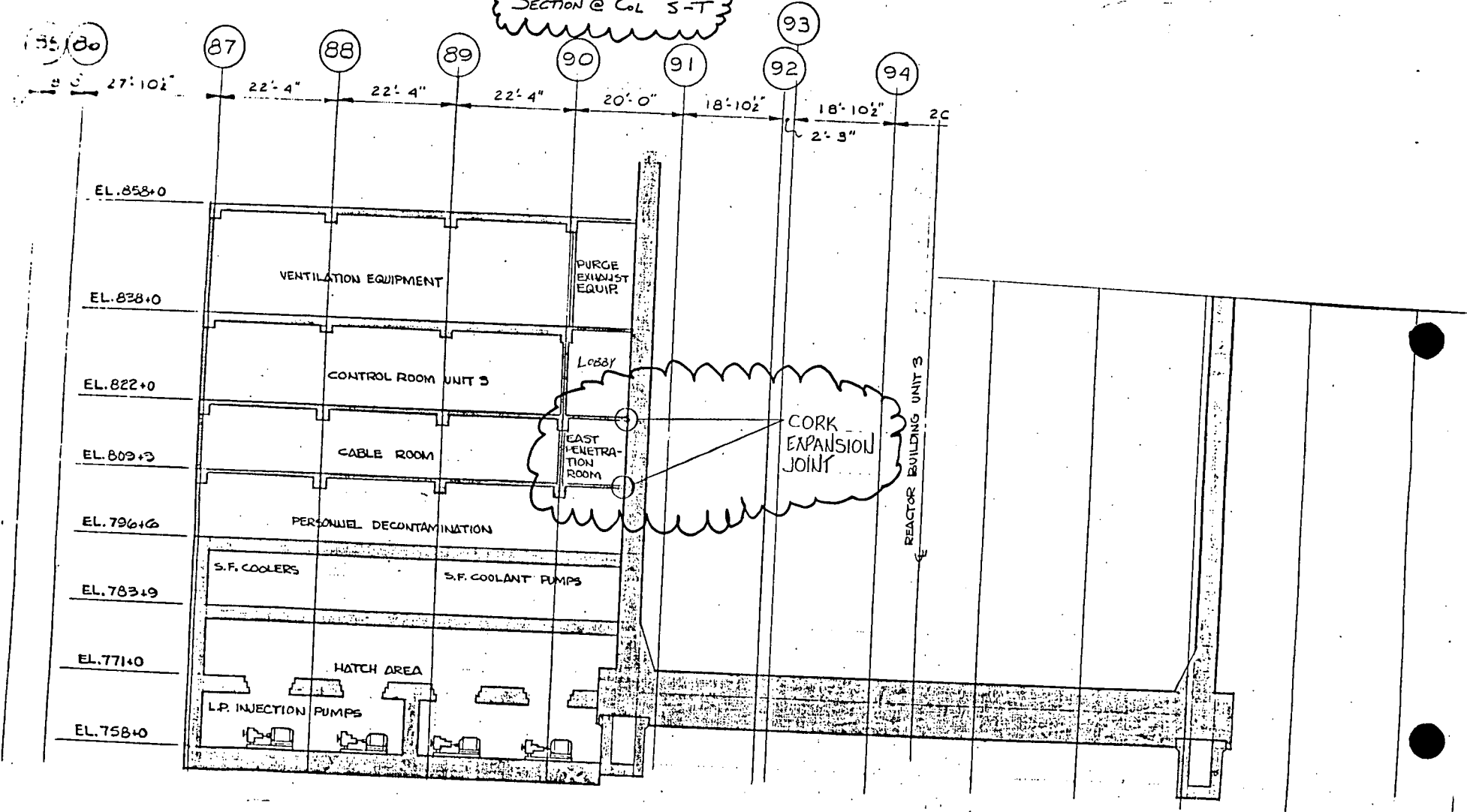
1. Separation of redundant pressurizer level instruments by less than 20 feet;
2. Separation of redundant systems and equipment needed to achieve hot shutdown condition by 20 feet without intervening combustibles.

Attachment 1
to
Enclosure 1

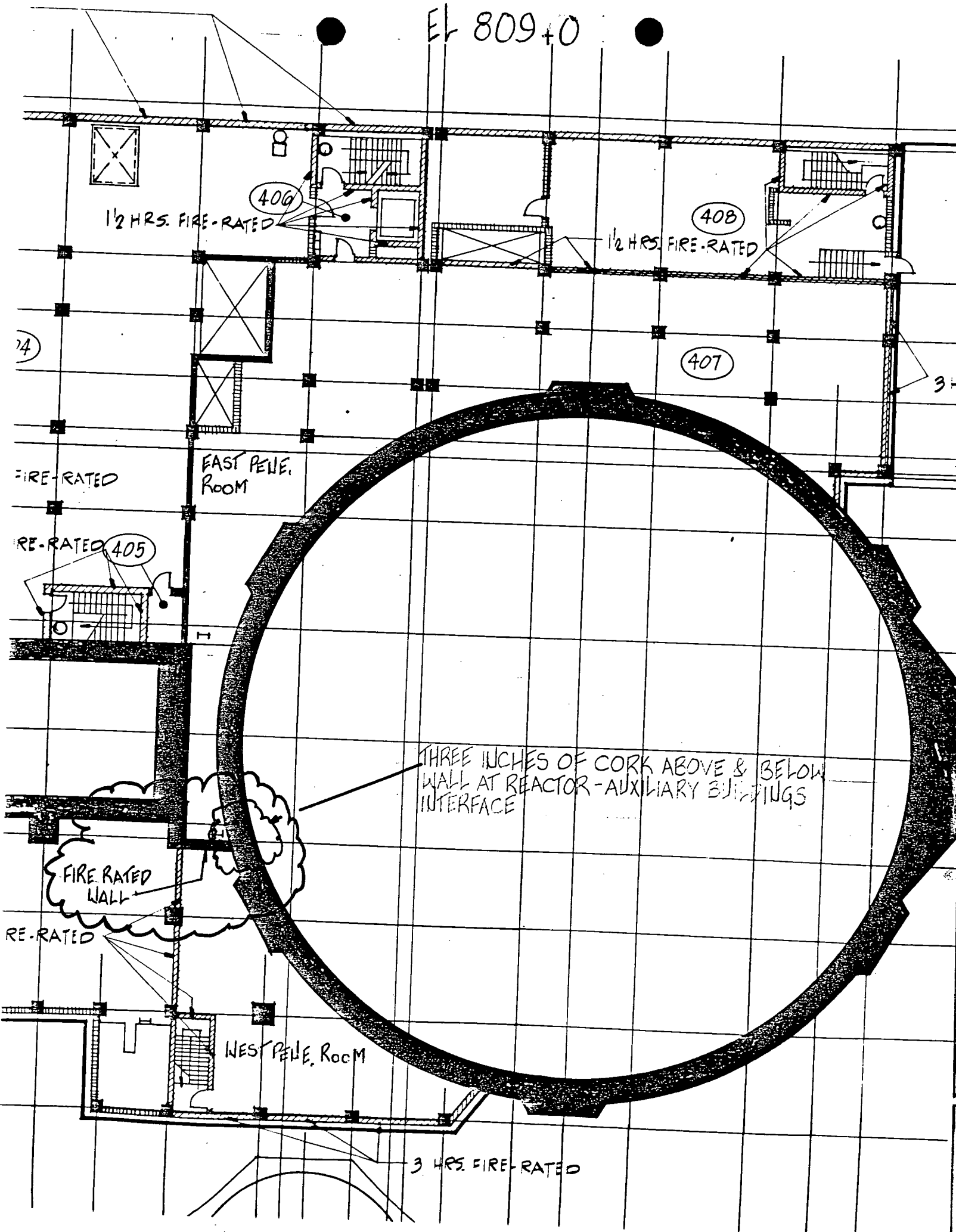
SECTION @ Col R-S



SECTION @ COL S-T



El 809+0



1/2 HRS. FIRE-RATED

406

1/2 HRS. FIRE-RATED

408

24

407

34

FIRE-RATED

EAST PEVE. ROOM

RE-RATED 405

THREE INCHES OF CORK ABOVE & BELOW WALL AT REACTOR-AUXILIARY BUILDINGS INTERFACE

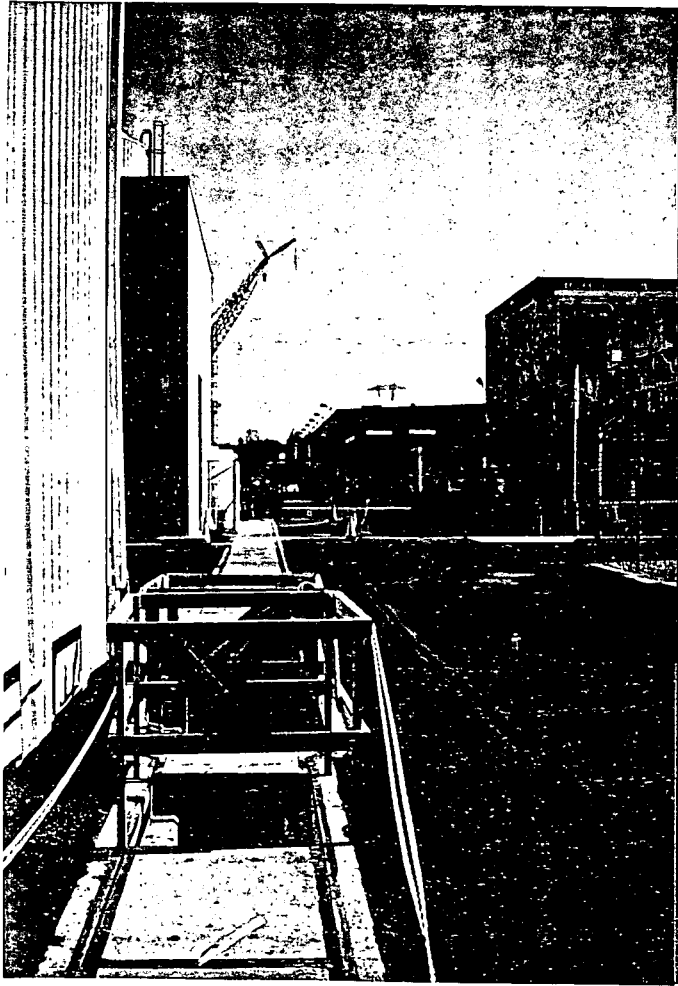
FIRE RATED WALL

RE-RATED

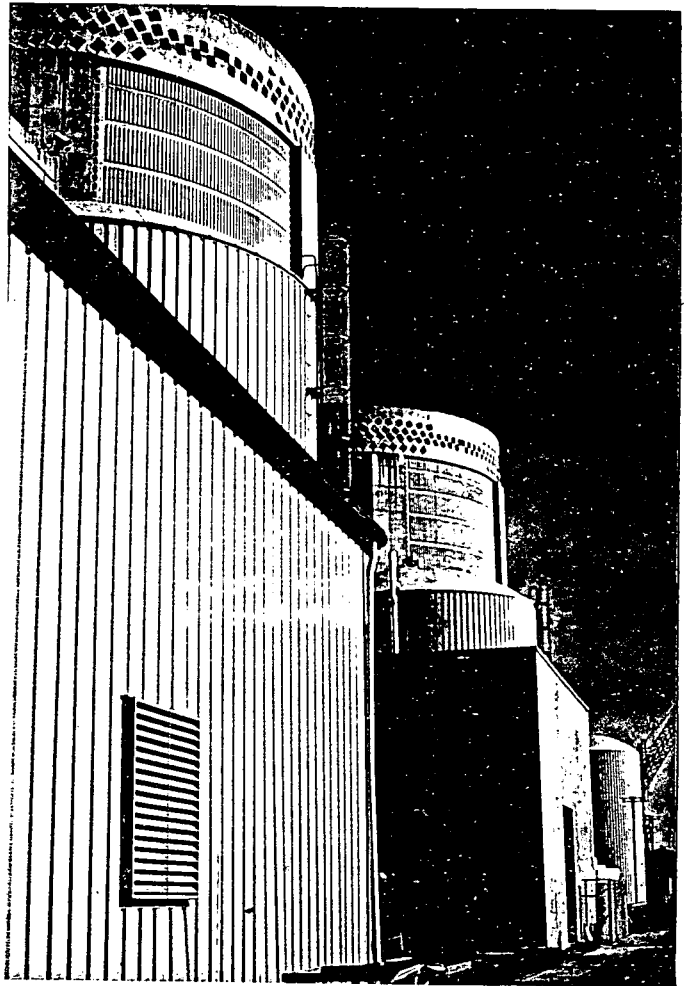
WEST PEVE. ROOM

3 HRS. FIRE-RATED

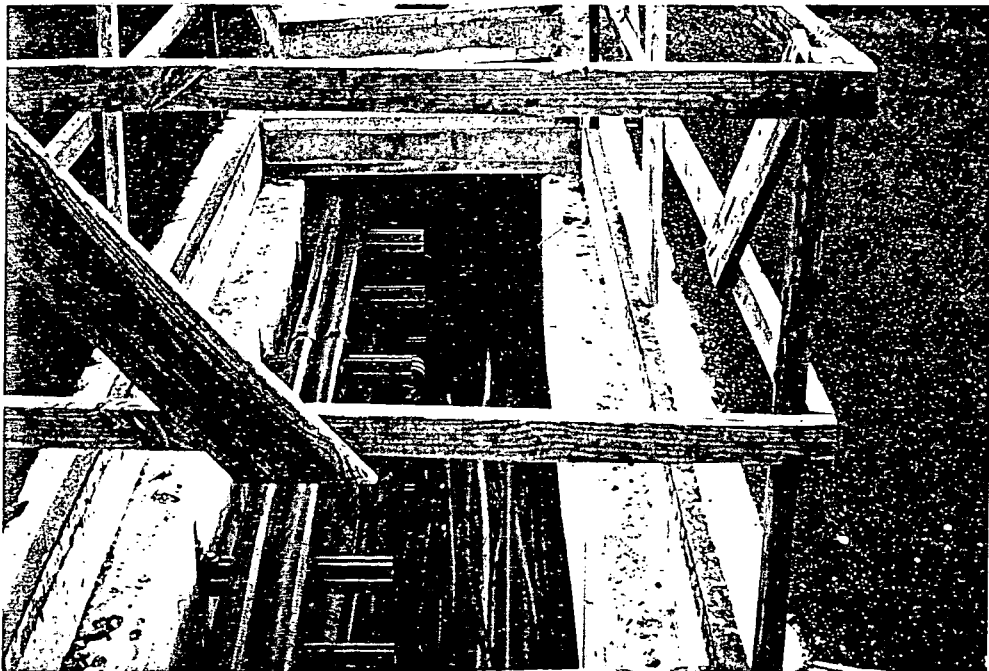
Attachment 2
to
Enclosure 1



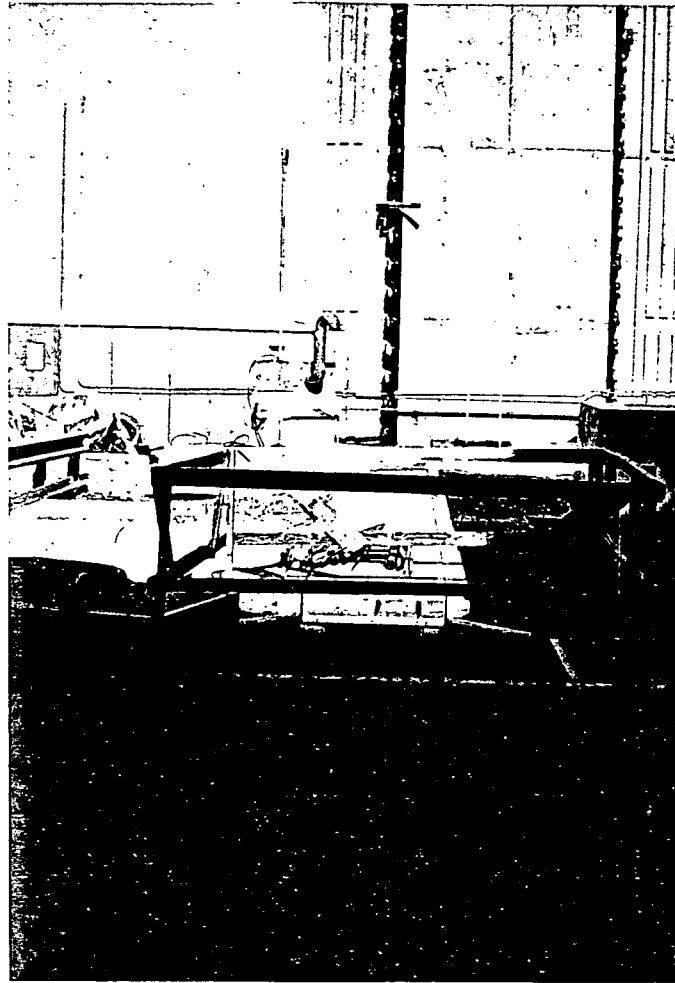
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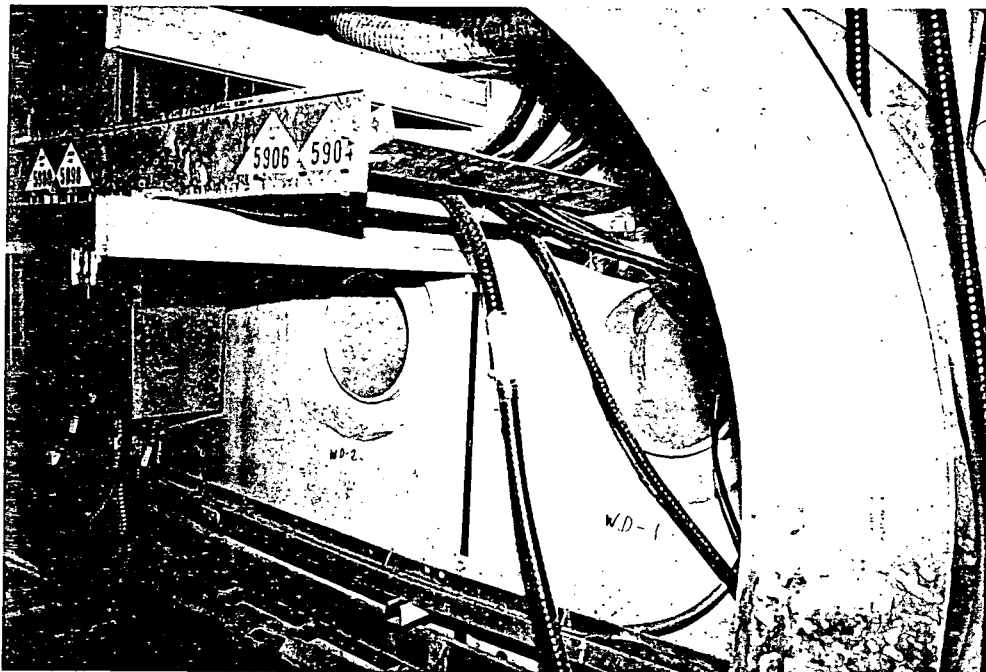
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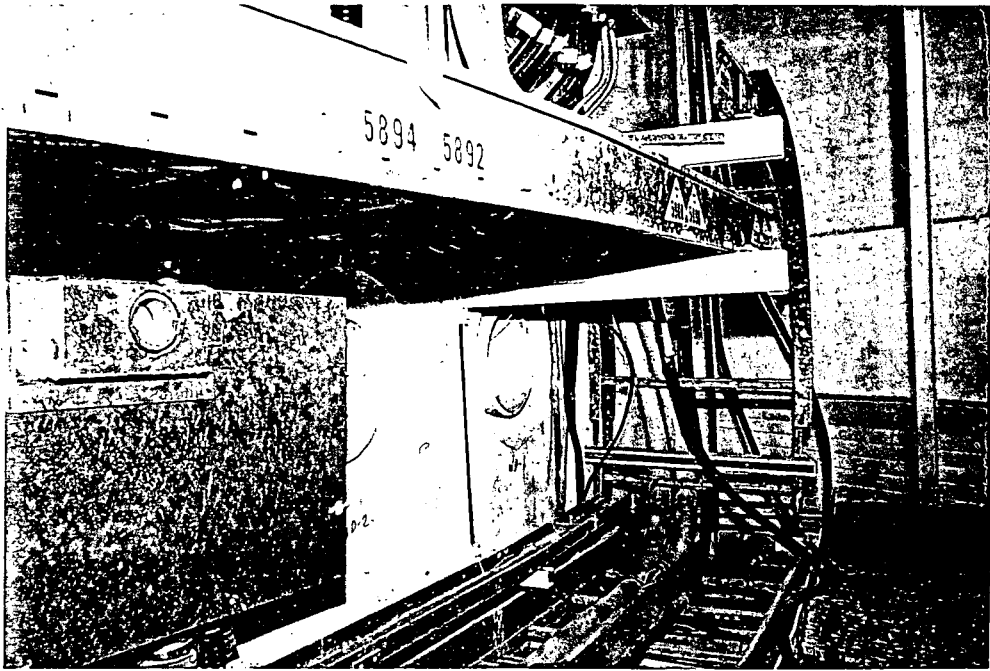
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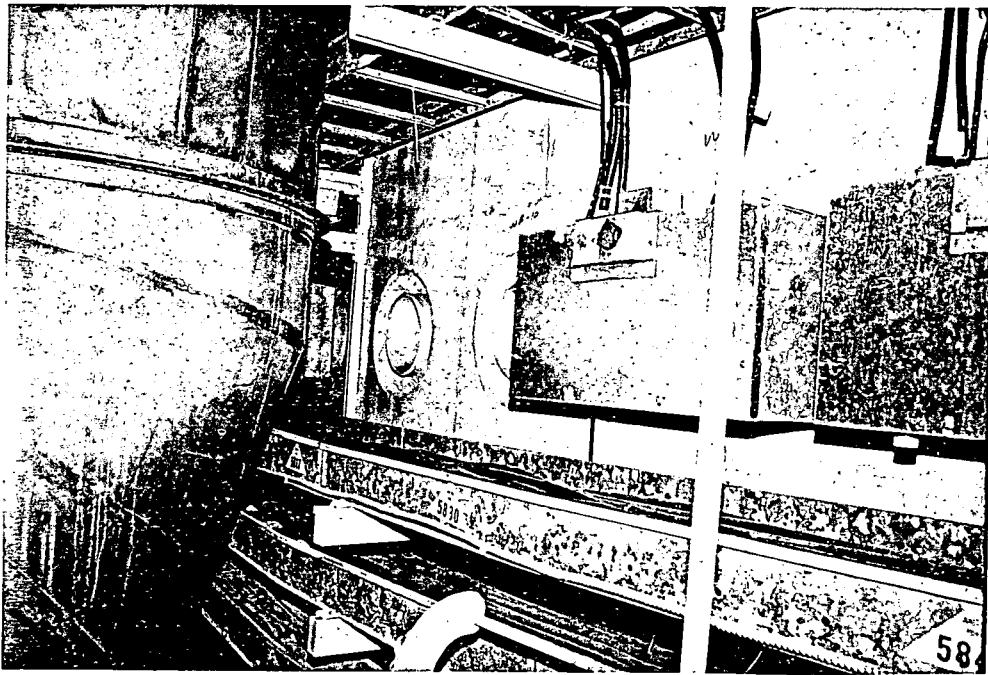
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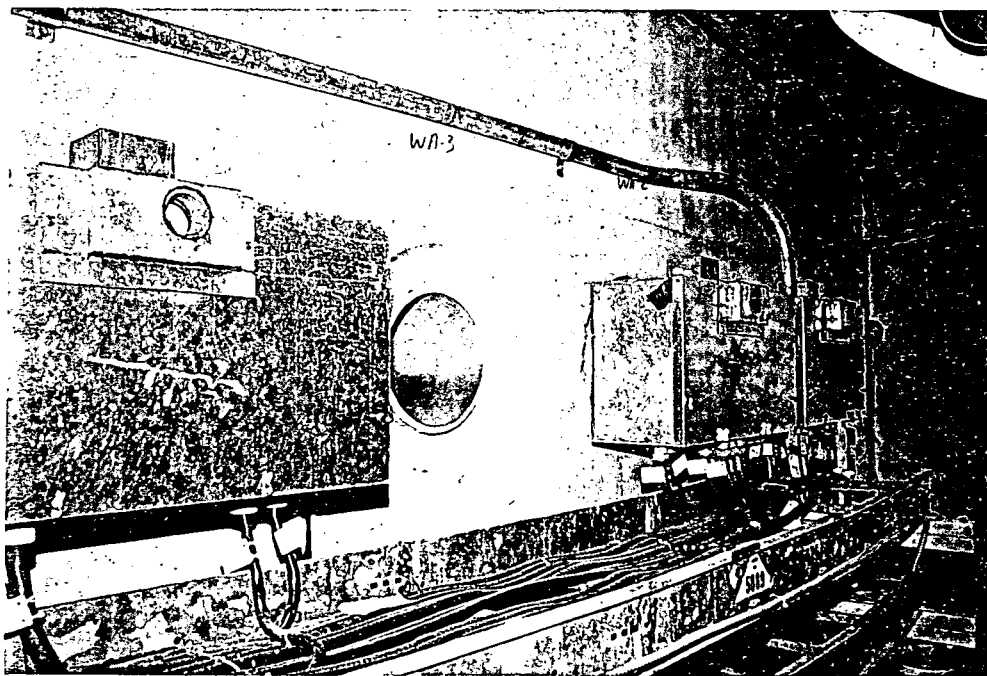
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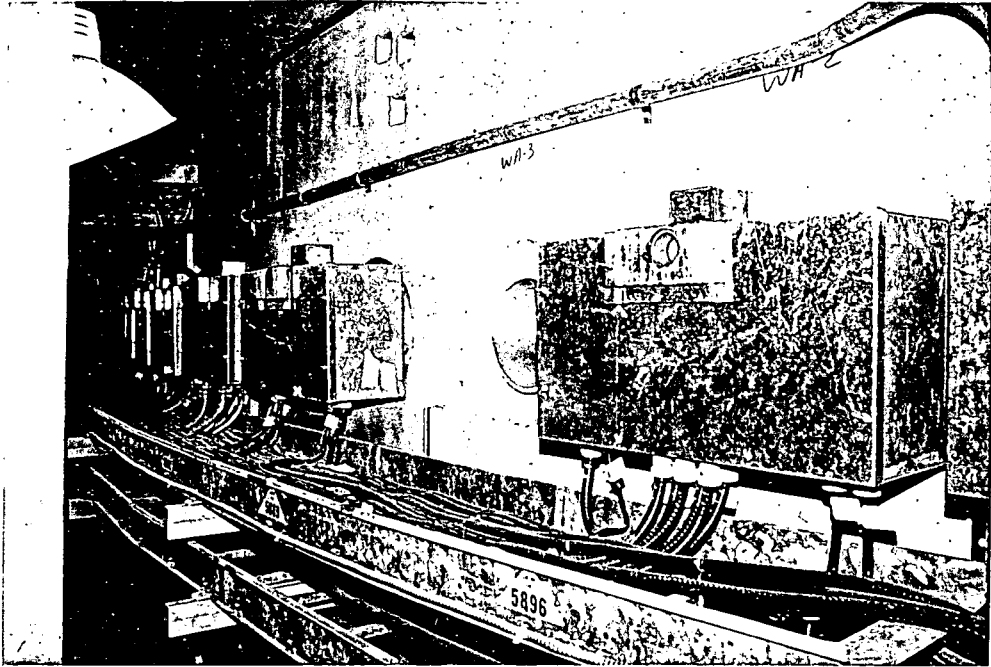
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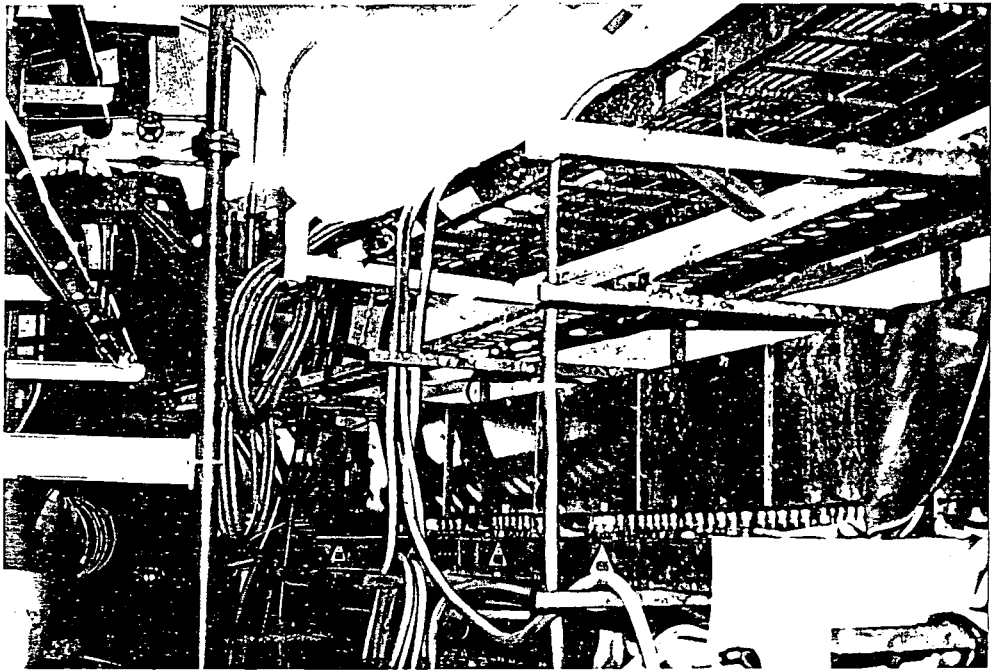
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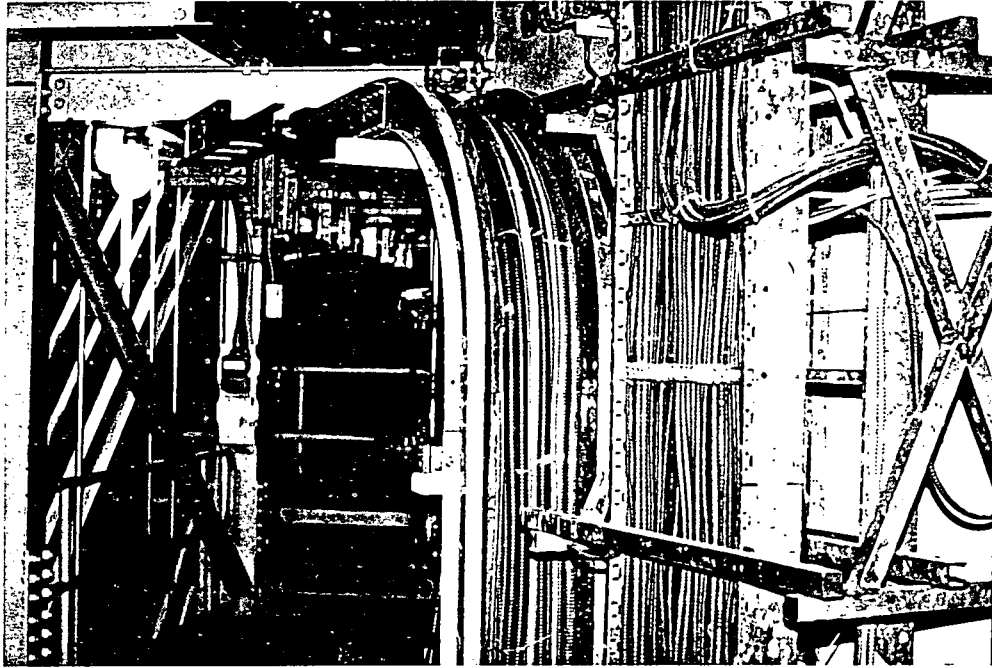
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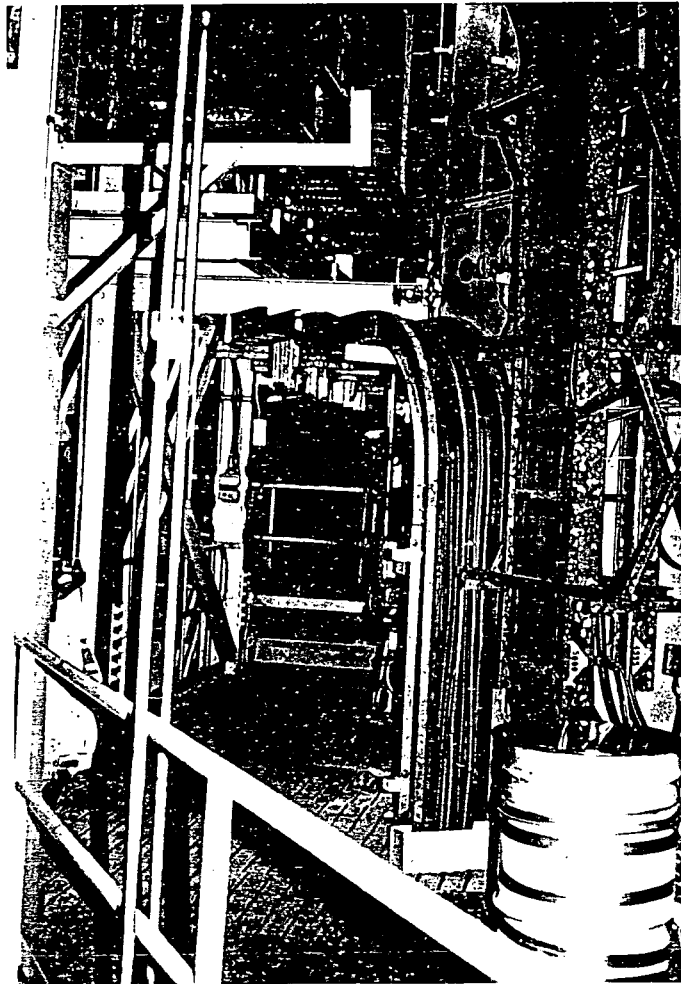
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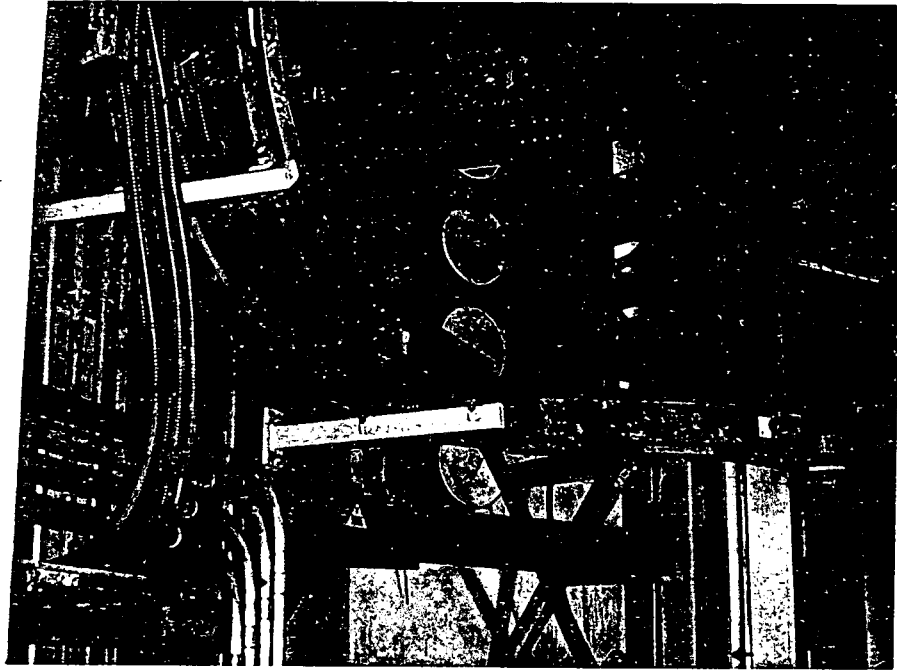
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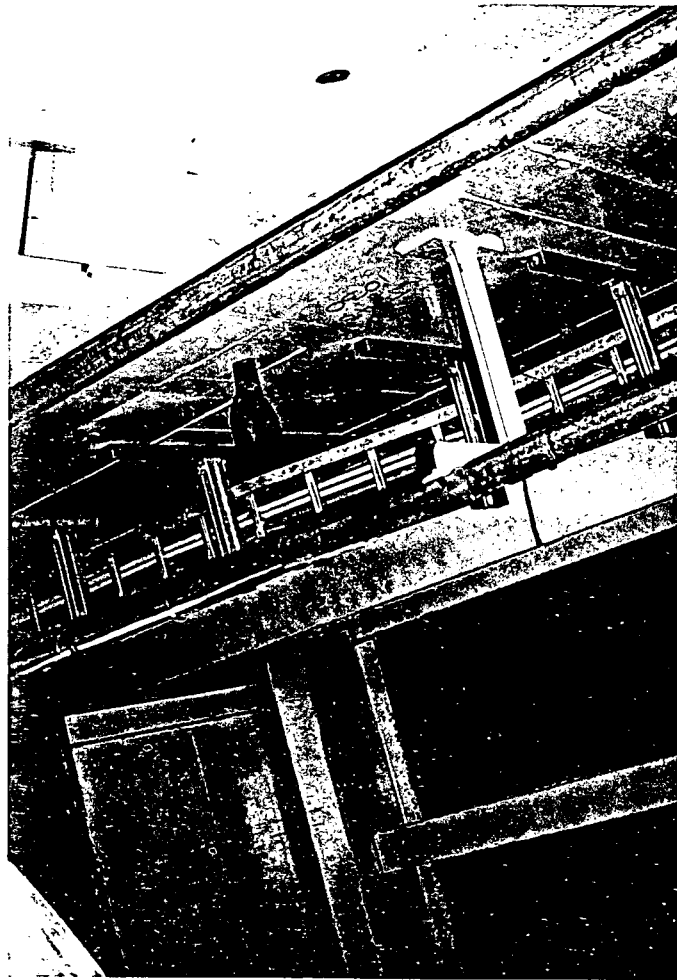
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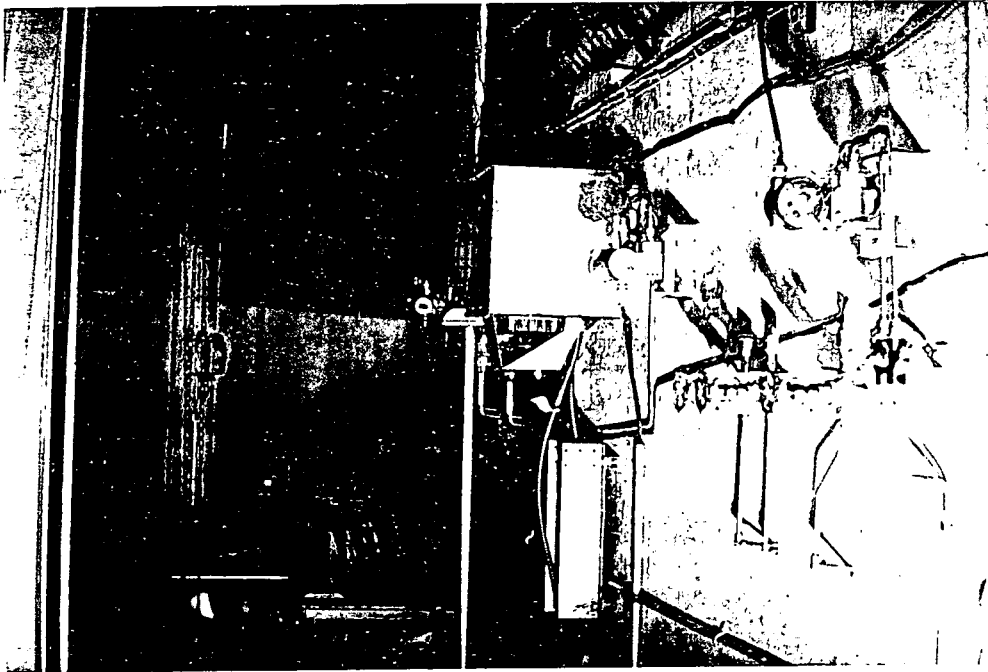
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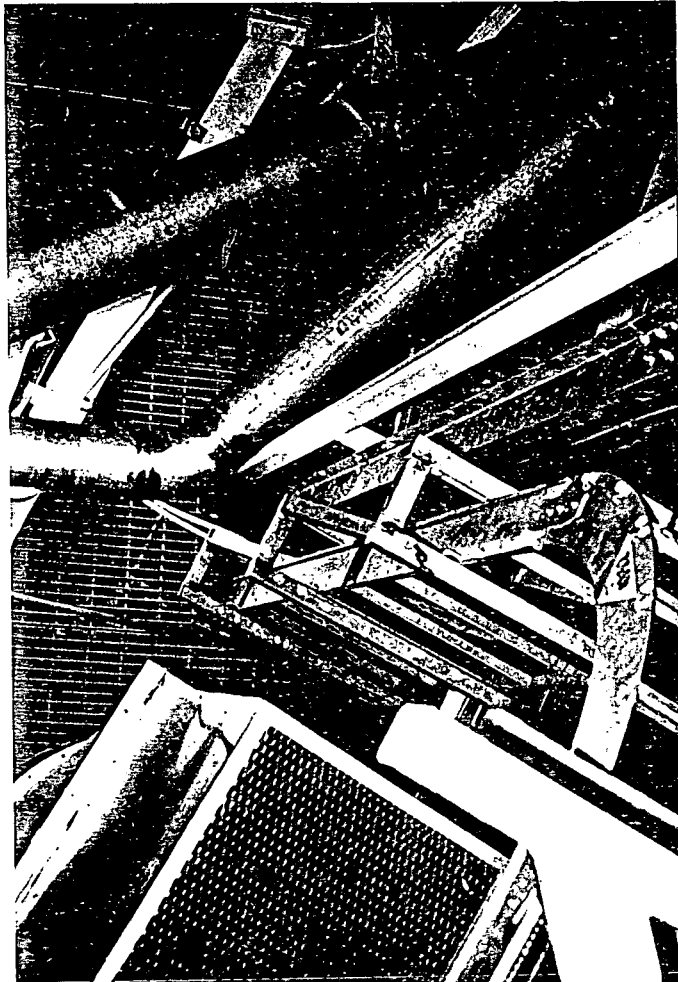
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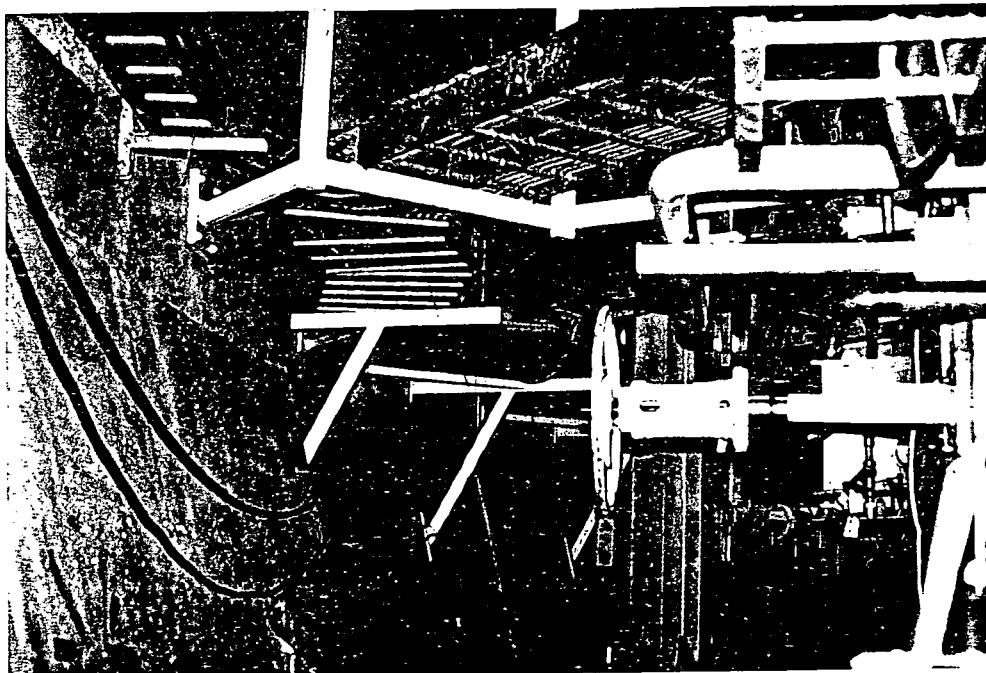
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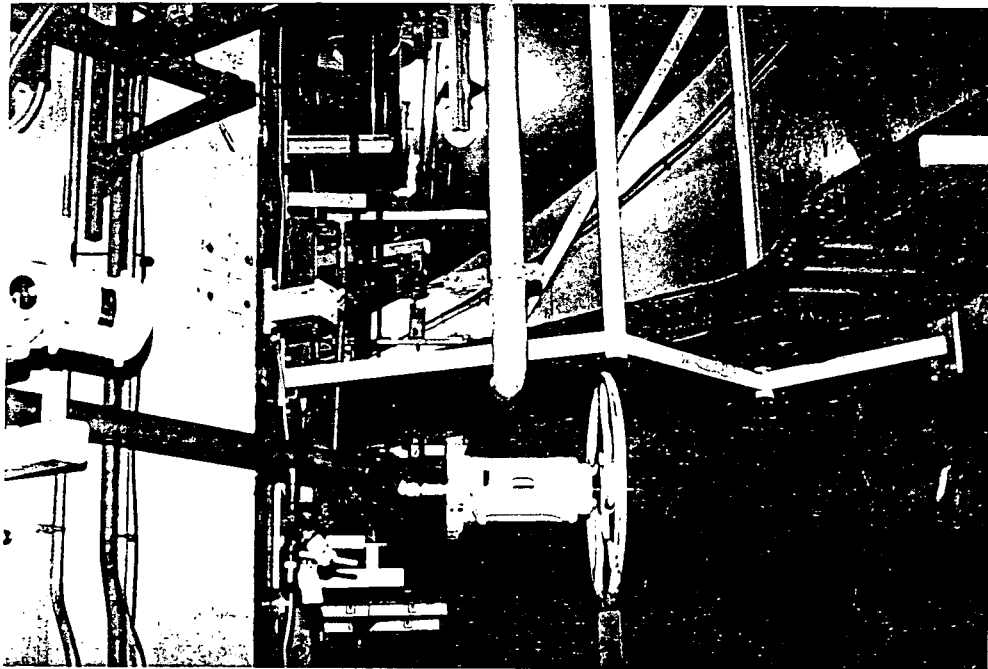
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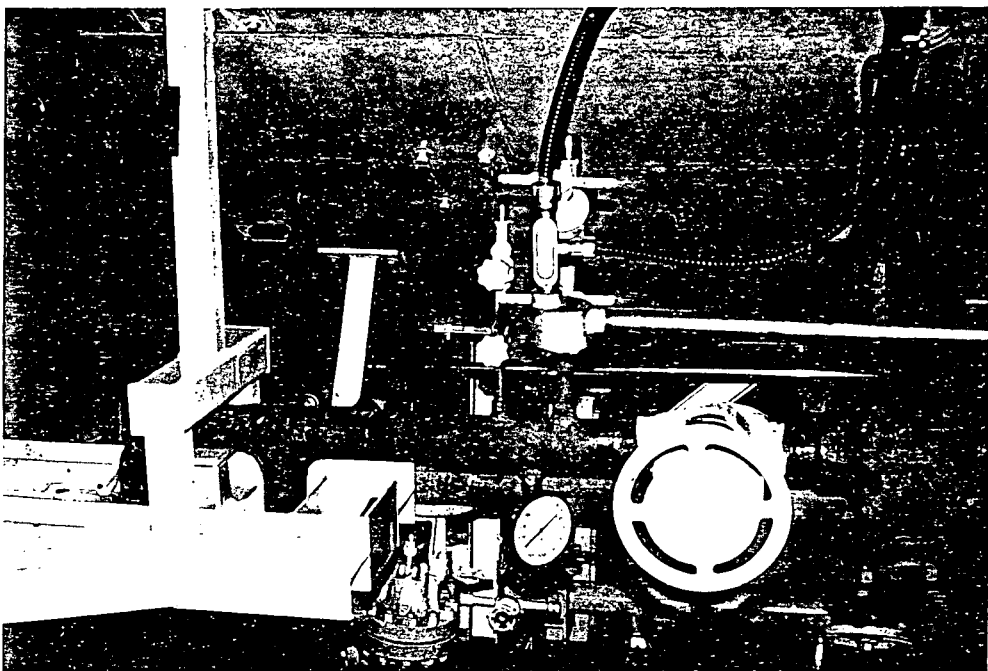
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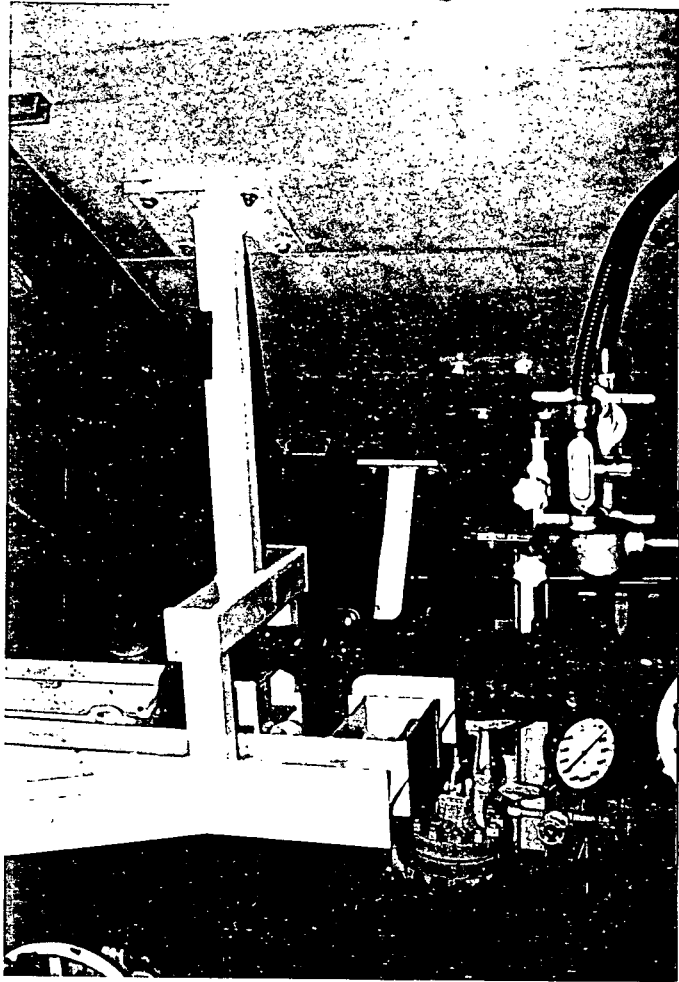
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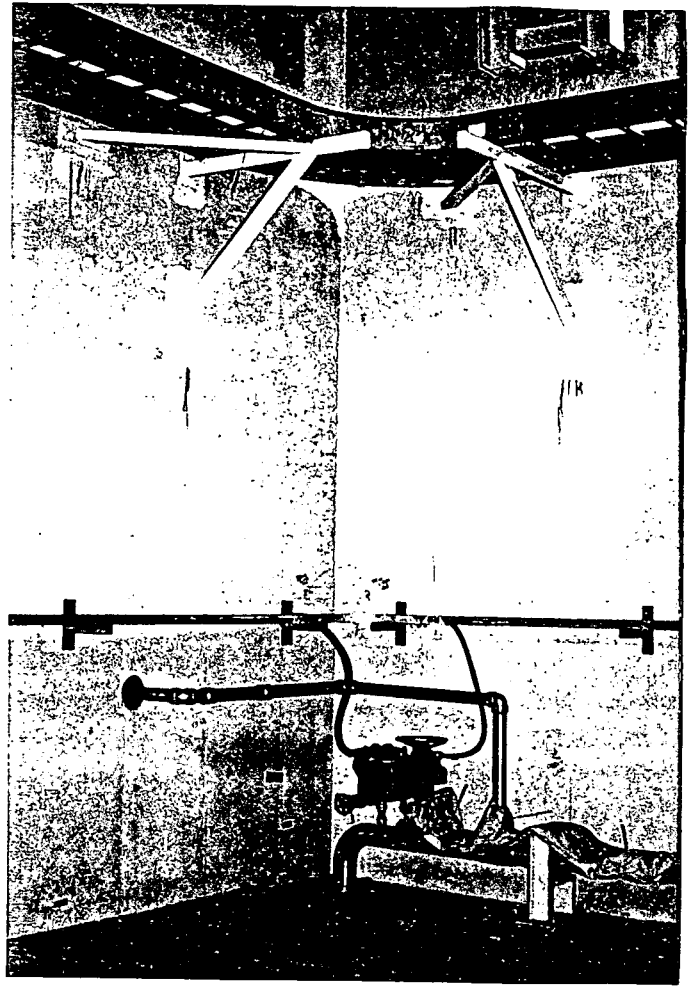
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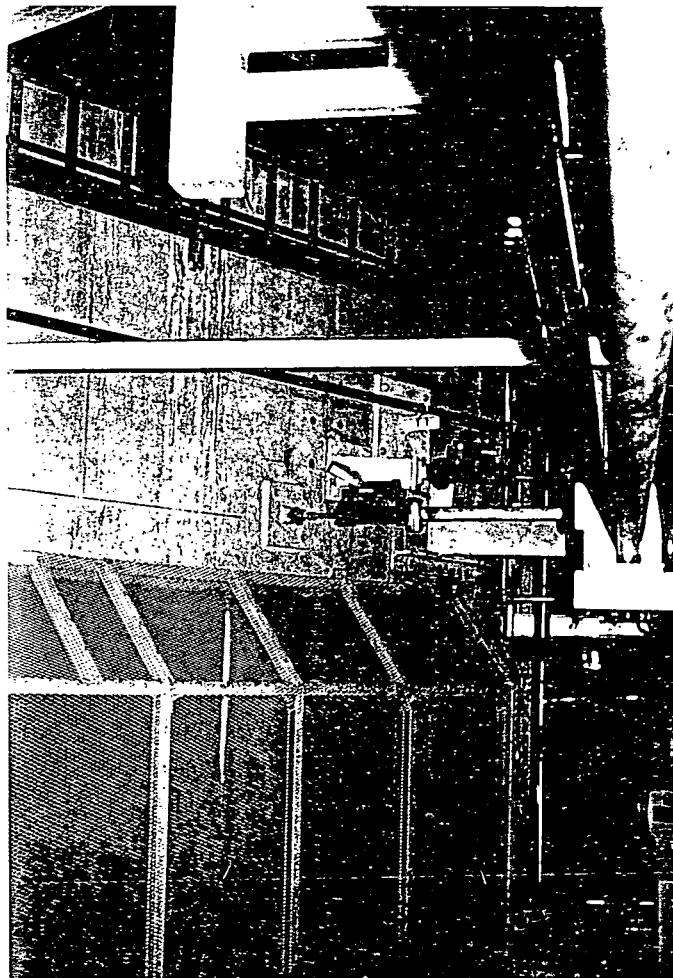


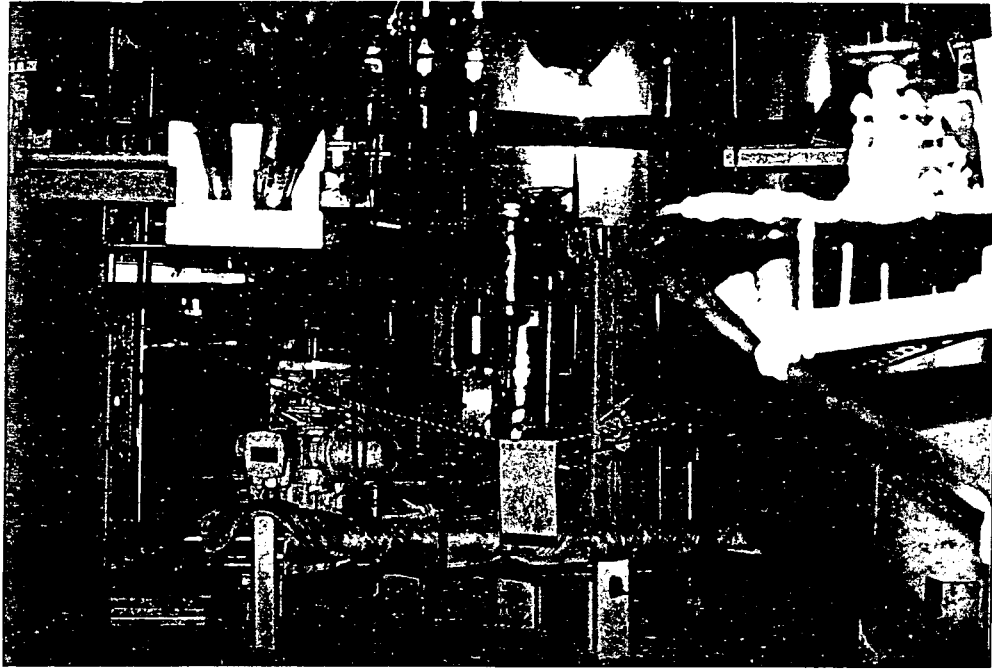
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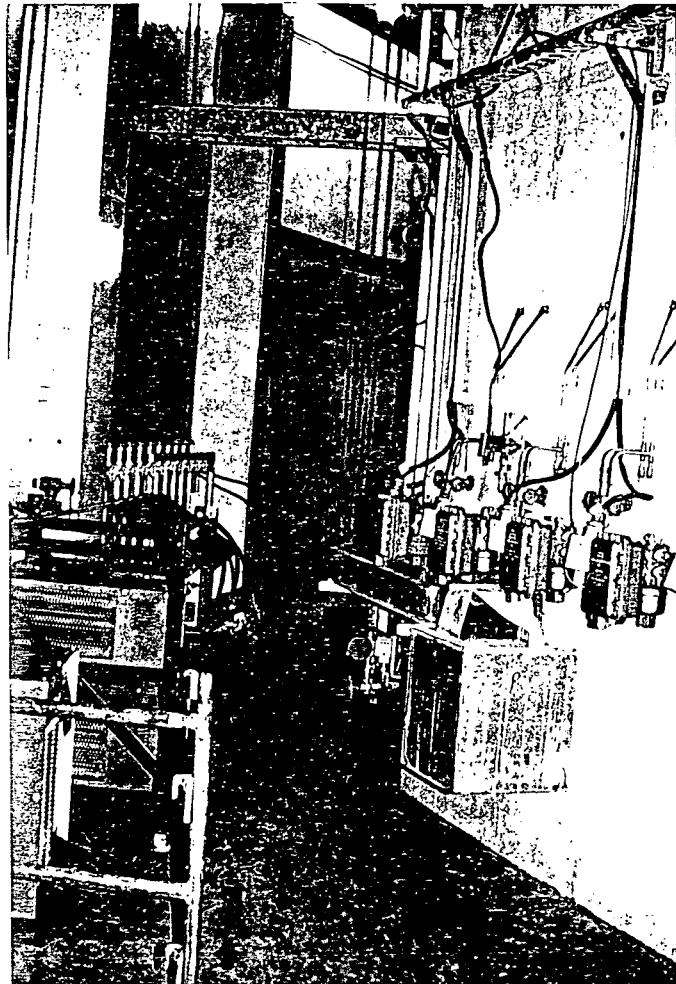
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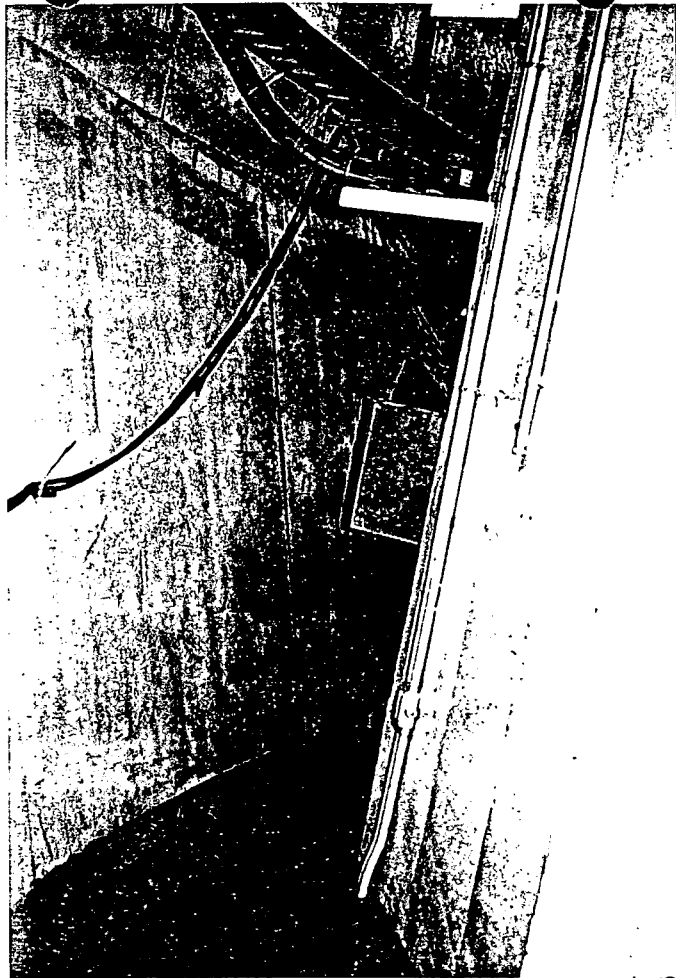




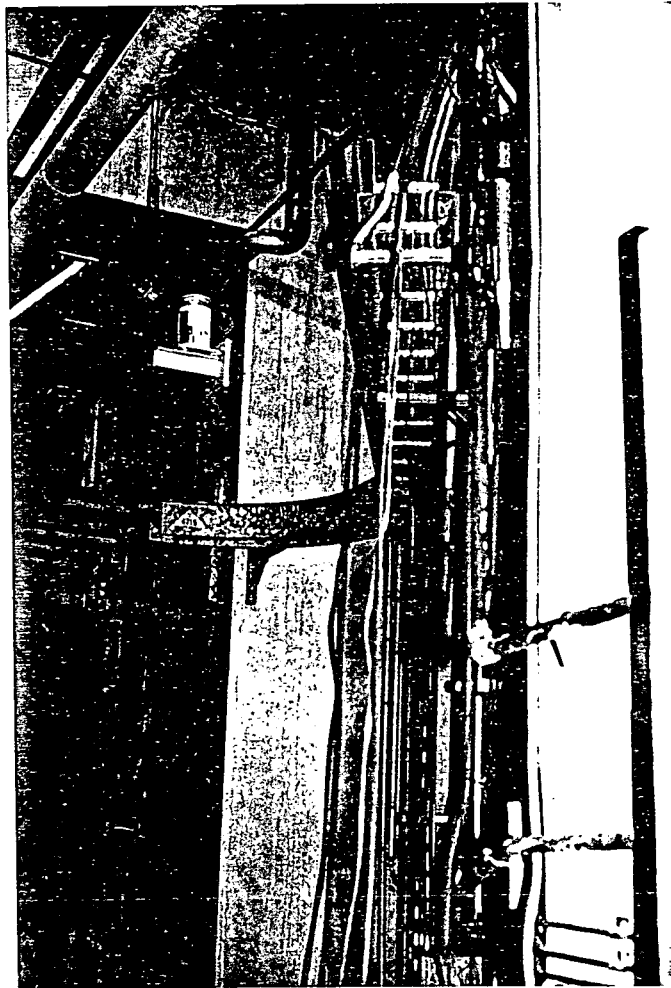
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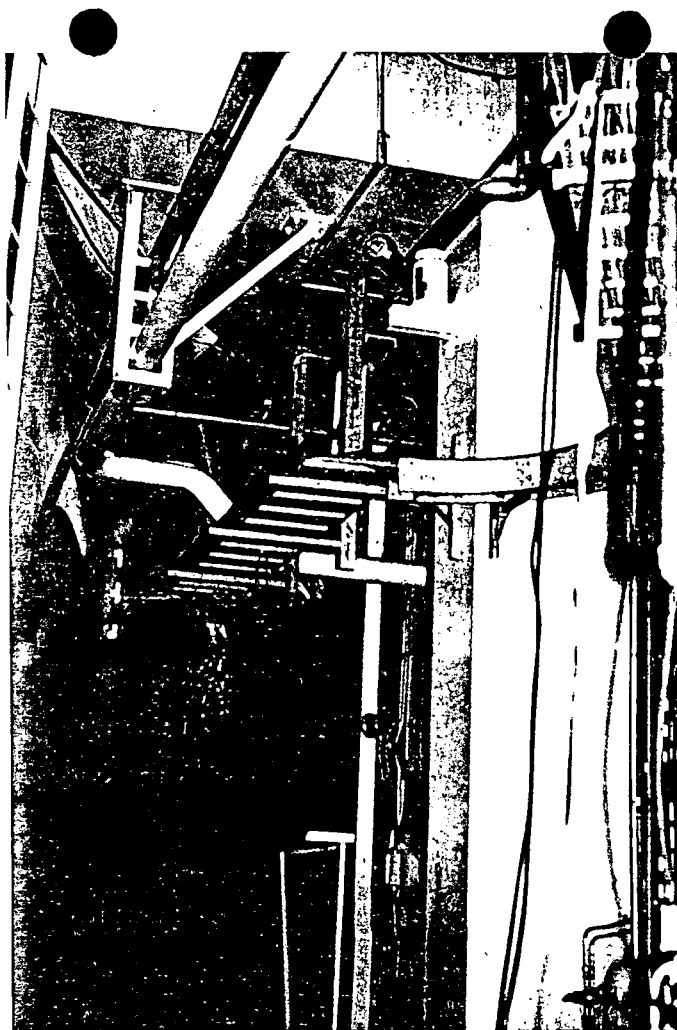
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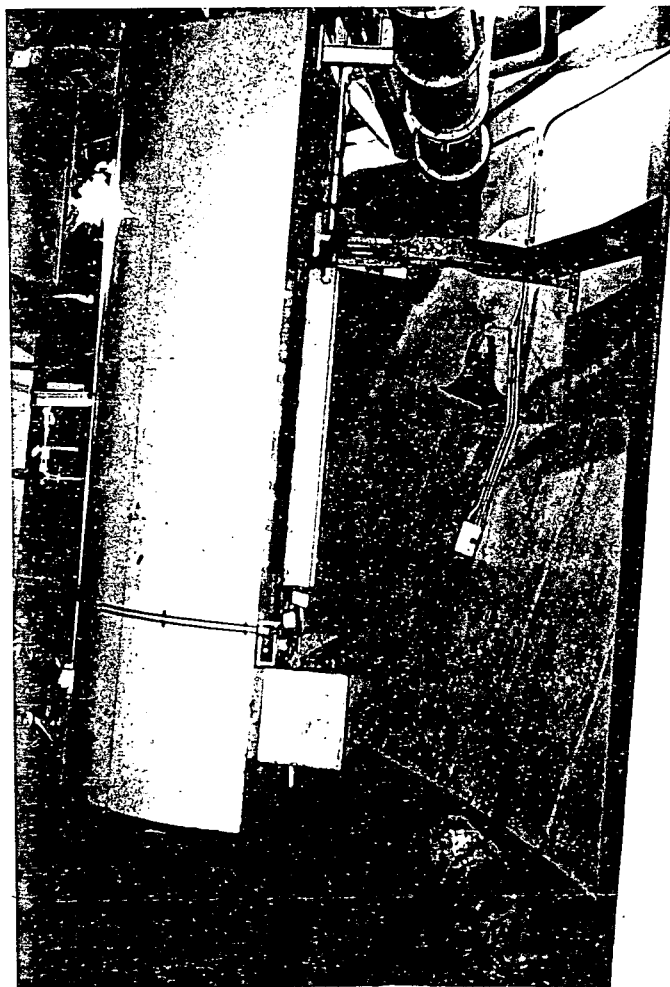
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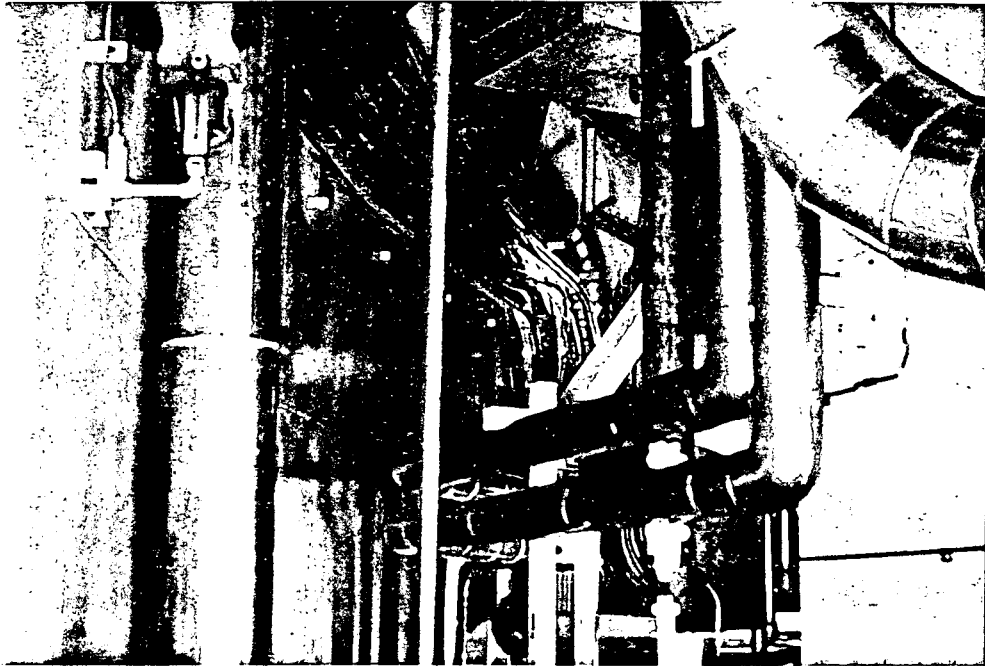
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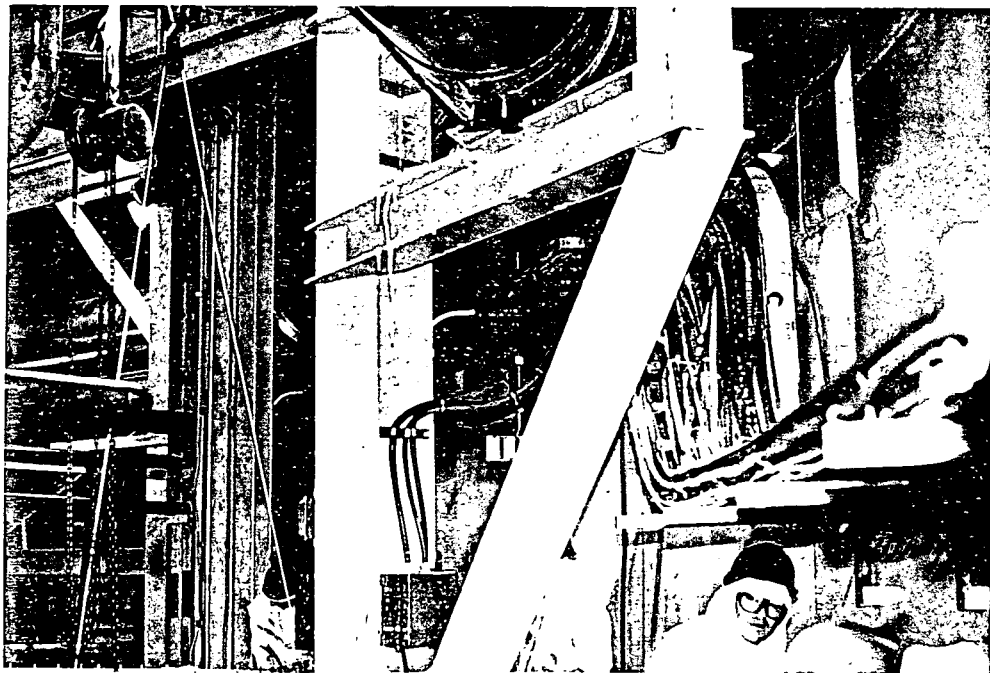
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36



Attachment 3
to
Enclosure 1

ATTACHMENT 3

Drawing No.: 0-950

Slide No.

- 1 and 2 At Unit 1 Reactor Building looking south at the SSF.
3 View inside the Cable Trench.
4 Branch trench at Unit 2 (Cables to the Penetration Room).
-

Drawing No.: 0-2913, 0-2913B

- 5 and 6 Penetration and WD-1 and 2, WD-2 used for SSF.
7 and 8 WA-10 and 11
9 and 10 WA-3
-

Drawing No.: 0-2886

- 11 SSF cables for Instrumentation Valves, RC Makeup Pump.
12 and 13 Cables for Pressurizer Heater, Valves, Instrumentation.
-

Drawing No.: 0-2885

- 14, 15,
16 Six inch tray - carries instrumentation cables around to the
 East Side for A-Generator.
17 Incore Instrumentation Tank
18 3PT-225 RC Loop A-Pressure Transmitter [Plant Shutdown -
 3PT-18P (0-2886)]
-

Drawing No.: 02884

- 19 Tray into the basement of Containment.
20 and 21 View looking towards the Normal Sump Area.
22 Looking out from the Normal Sump where SSF tray turns thru the
 Secondary Shield Wall.

Slide No.

Drawing No.: 02884 (cont.)

- 23 and 24 Tray
- 25 Tray around the Emergency Sump
- 26 Tray over the Incore Instrumentation Cable Chase.
- 27 RC Makeup Pump.
- 28 3LT-67 = Steam Generator B Level Transmitter (Normal Plant -
3LT-81 for B Generator)
- [For A Generator Shutdown = 3LT-80 or 3LT-66 for the SSF]
- 29 3LT-224 and 3LT-72 = Pressurizer Level Transmitters [Normal
Plant Shutdown - 3LT-4P1 - from East Penetrations, (0-2885)
also 3LT-4P2 and 3LT-4P3]
- 30 and 31 Trays on the East Side.
- 32 3FT-157 = RC Makeup Pump Flow Transmitter .
-

Drawing No.: 0-2887

- 33 and 34 Operating Floor, El. 844' + 6", 1-Tray in Dome Area.
- 35 Looking up towards Dome.
- 36 Looking up towards Dome.