

Written Report on the
Reportable Deficiency
Concerning
Unconsolidated Concrete
in the
Fuel Handling Building

SOUTH TEXAS PROJECT
April, 1978

8005280359

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SUMMARY

Following removal of the forms, some under-consolidated concrete areas were identified in the bottom surface of the 6 ft. thick concrete slab at El. +21'-11" in the STP Unit 1 Fuel Handling Building. A deficiency report citing this condition was prepared by the site Brown & Root Quality Assurance Department. Further investigation of these areas by concrete chipping revealed voids with exposed reinforcing steel bundles. An analysis of this deficiency concluded that, since the structural integrity of the slab was in question, (1) it could have affected adversely the safety of operations of the plant if it were to have remained uncorrected, and (2) extensive repairs would be required to re-establish the adequacy of the structural slab to perform its intended safety function. On March 15, 1978, Houston Lighting & Power Company (HL&P) notified the Nuclear Regulatory Commission (NRC) that this condition existed and was reportable as required by 10 CFR 50.55(e). Subsequent to this notification, an extensive evaluation has been done to identify the cause and extent of the deficiency, to analyze the condition of the structure and safety implications, to determine the methods for repair and to develop a corrective action program.

Briefly, the cause is the extensive congested reinforcing steel that exists in the bottom of the slab, combined with inadequate use of vibrators. Corrective actions involve more pre-planning of these complex concrete pours.

1

2

4

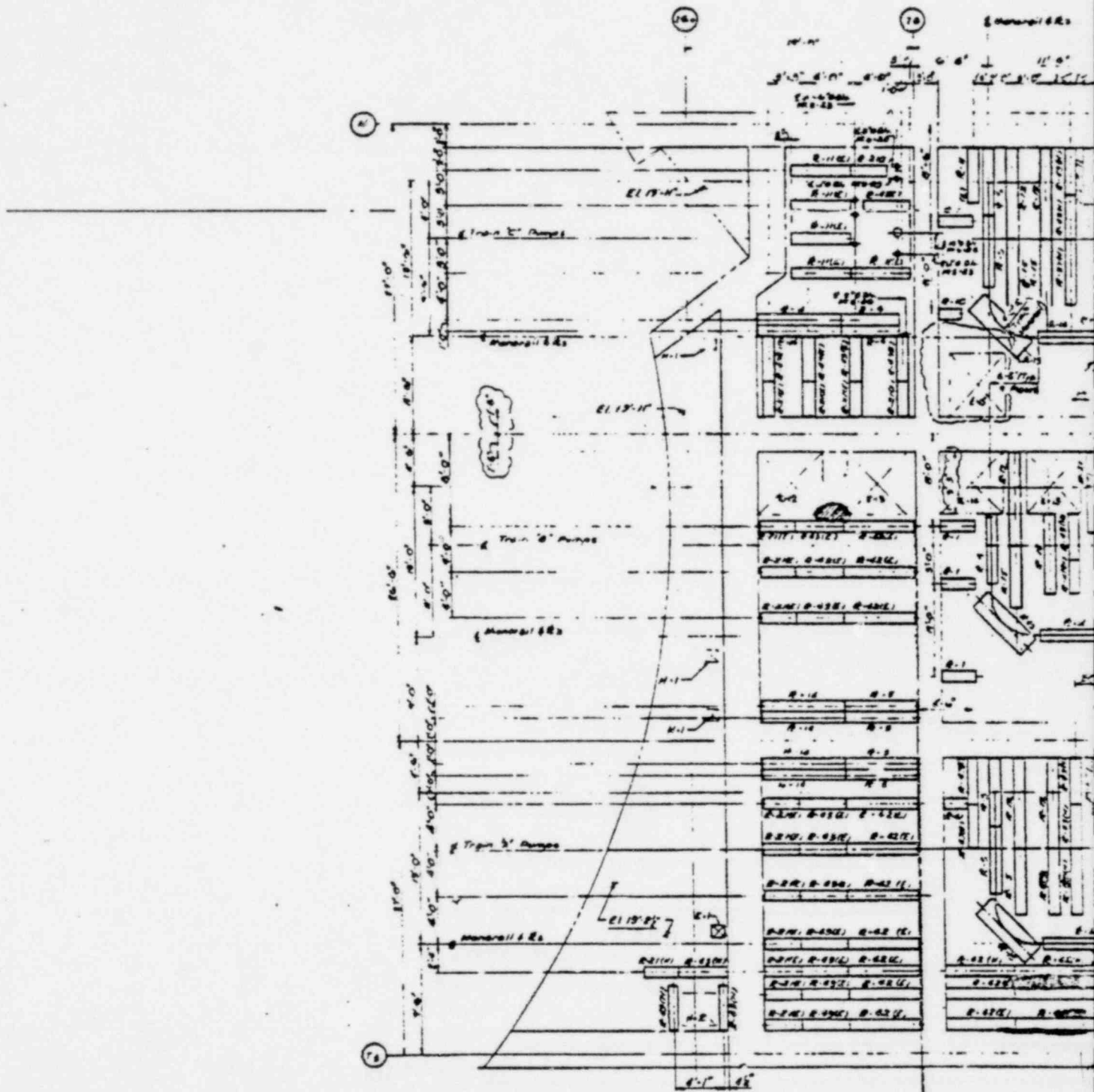
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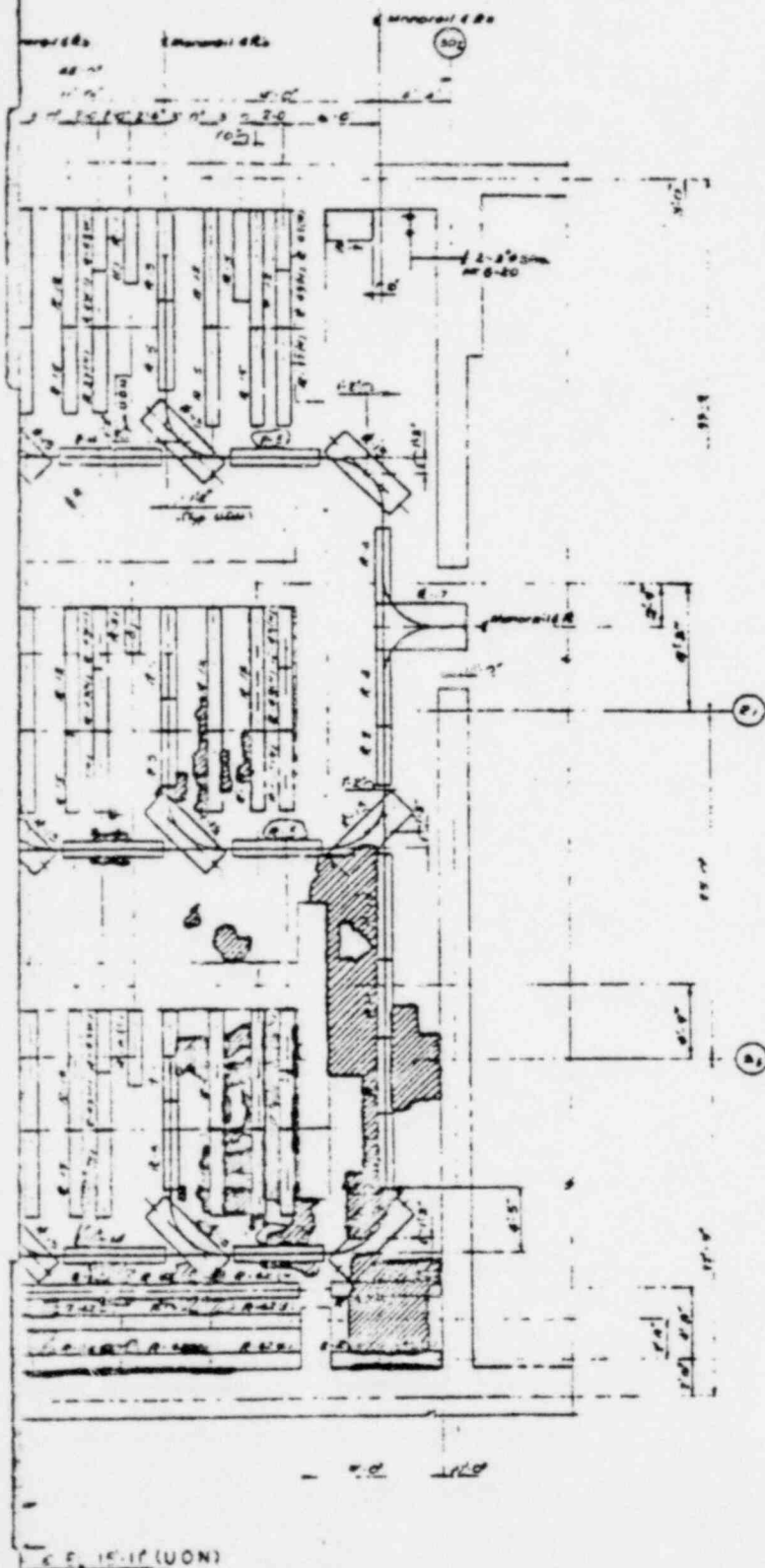
B

A



EMBED
REFLECTED CELL

1 A



18

ECCS PUMP CUBICLES
 CONCRETE DEFECT MAPPING

FIGURE 2
 DWG. NO. 1-C-3105-2

1

2

3

4

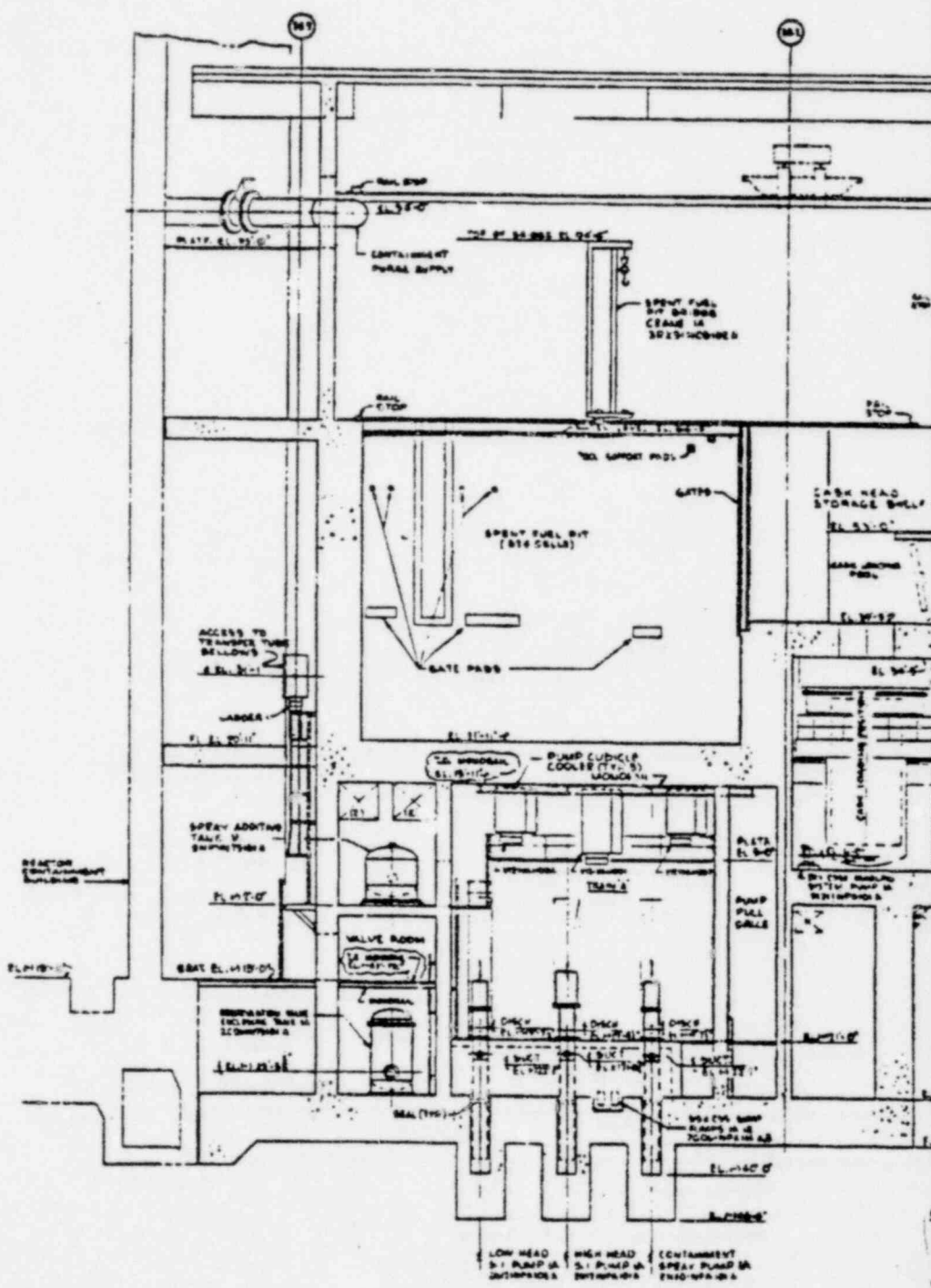
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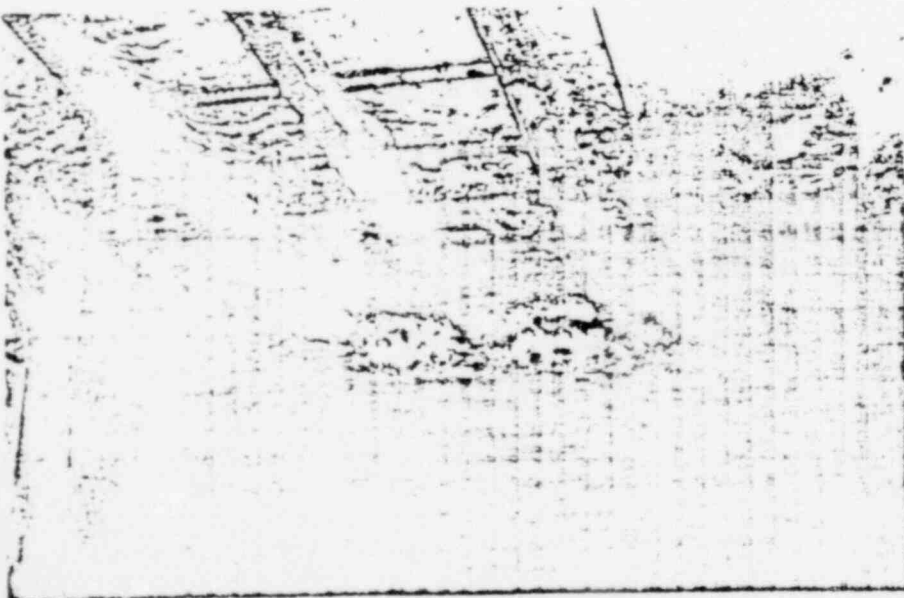
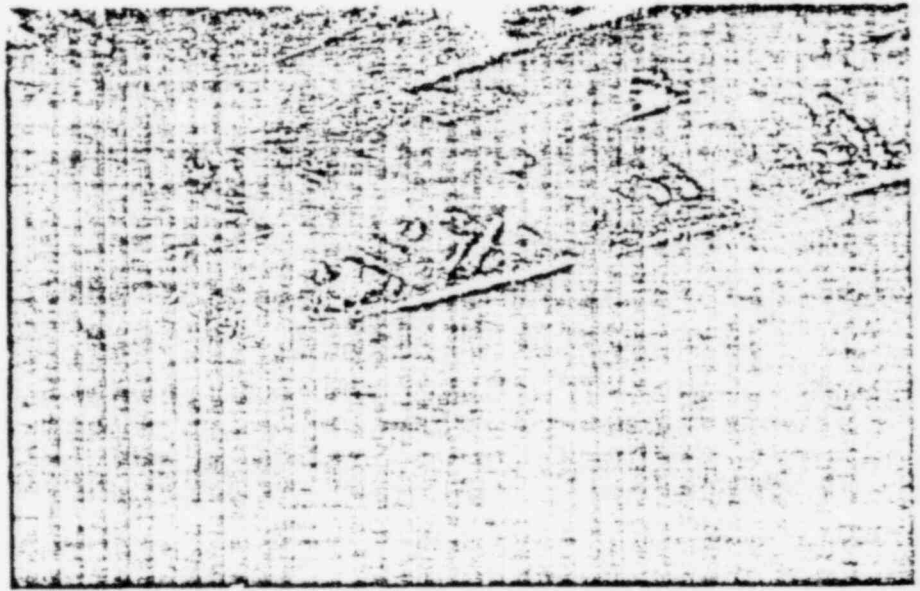
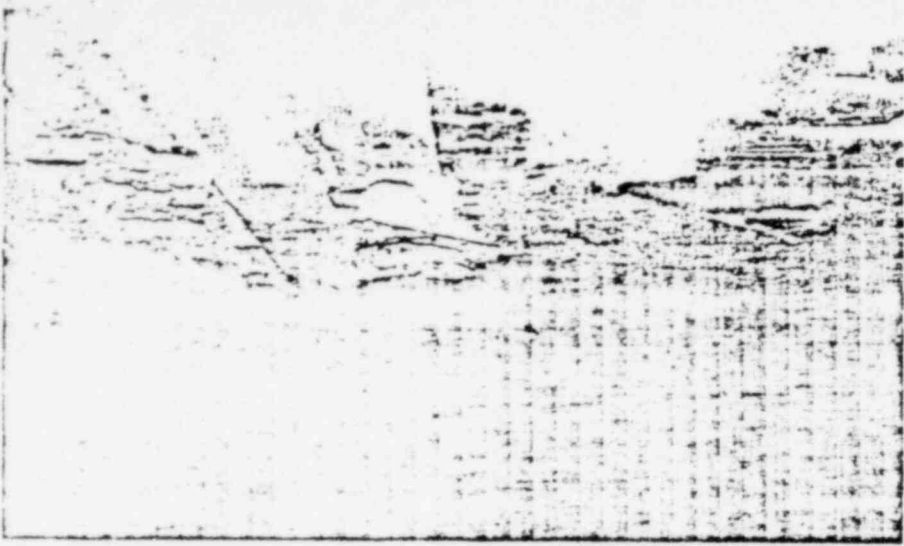
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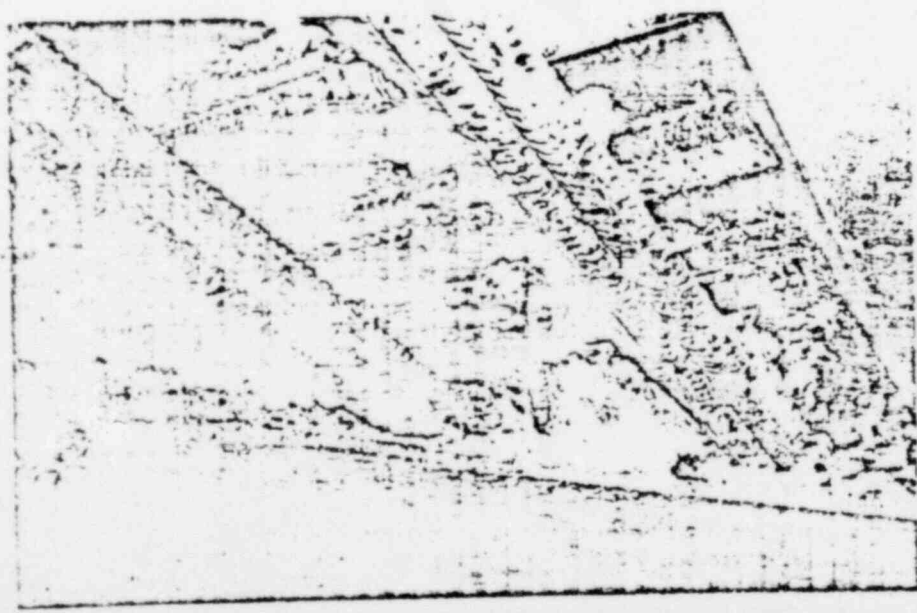
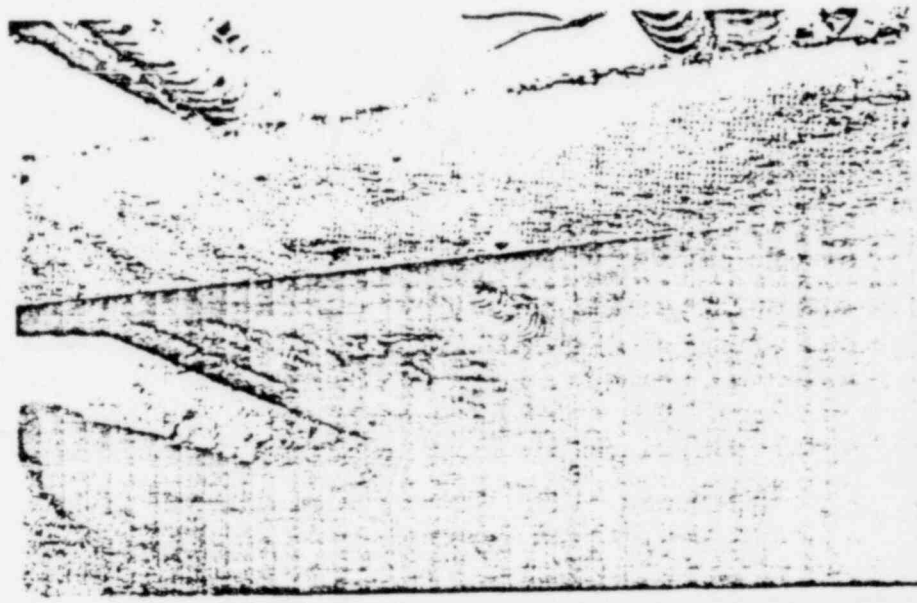
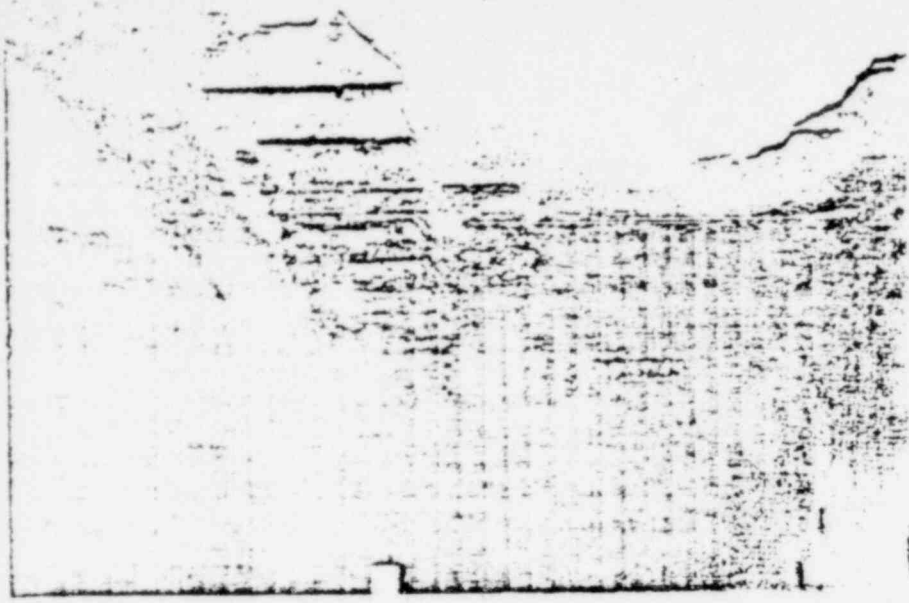
SECTION 'A-A'
 REF. DWS. 1-N-5057
 1-N-5058
 1-N-5059
 1-N-5060

2.A



REPRESENTATIVE DEFECT AREAS

FIGURE 3



REPRESENTATIVE DEFECT AREAS

FIGURE 4