Date:

Serial No.: IE:RCI: 78-05

TRANSFER OF LEAD RESPONSIBILITY

TO: D. B. Vassallo, Assistant Director for Light Water Reactors, Division of Project Management, NRR

SUBJECT: SETTLEMENT OF DIESEL GENERATOR BUILDING FOUNDATIONS AT MIDLAND PLANT, UNITS 1 AND 2

RESPONSIBLE ASSISTANT DIRECTOR: G. W. Reinmuth

DESCRIPTION OF ITEM REQUIRING RESOLUTION:

As a result of a recent inspection during the period of October 24-27, 1978 at which time Region III inspectors examined details related to reported settlement, it has become apparent that the magnitude of differential settlement observed by the licensee may be significant.

Information related to the subject of settlement of the diesel generator building foundations was first reported to Region III on September 7, 1978 as a 10 CFR 50.55(e) item. On September 29, 1978 an interim report was submitted. The inspection followed this item the next month.

The FSAR in Table 2.5-14 specifies "controlled compacted cohesive soil" be used as the supporting soils for the Diesel Generator Building, portions of the Auxiliary Building, Borated Water Storage Tank foundation, Diesel Fuel Oil Tank foundation, Radwaste Building and other structures. However, the supporting soil actually used for these structures was random fill material (Zone 2), which is defined as any material free of humus, organic or other deleterious material (Table 2.5-10). The material included sand, silts, clay and lean concrete.

The applicable specifications, procedures and drawings contained conflicting requirements, were at variance with FSAR requirements and/or did not implement recommendations of the architect-engineer's consultant in such areas as: percent compaction requirements, lift thickness, required number of passes with specified equipment and type of fill material.

CONTACT: R. E. Shewmaker, RCI
49-27551

The licensee's architect-engineer engaged the services of an additional consultant in the geotechnical engineering area to perform laboratory tests on soil samples obtained during a soil boring program which began on August 25, 1978.

The final results of the investigative soils test program and the recommended alternatives and actions concerning the resolution of this problem were scheduled to be presented to the licensee during the week of November 6, 1978.

While other structures mentioned previously are being monitored and are experiencing settlement, the licensee has characterized these settlements to be not as severe as that of the diesel generator Building.

RECOMMENDATIONS AND PROPOSED COURSE OF ACTION:

1. NRR will evaluate the situation based on current facts to determine whether additional information is needed to assess the acceptability of the plan the licensee intends to execute.

2. NRR will determine the acceptability of the proposed corrective action, if any and advise IE.

3. IE will provide assistance as necessary and will assure compliance with any new or revised requirements

CONCURRENCE:

for R. E. Shewmaker
G. W. Reinmuth, Assistant Director
Division of Reactor Construction
Inspection, IE

11/17/78
Date

D. B. Vassallo
D. B. Vassallo, Assistant Director
for Light Water Reactors, DPM, NRR

11-17-78
Date

Enclosures:
1. Initial QA Report on Deficiency
2. Interim Report dtd 9/22/78
3. Transmittal ltr, Howell to Keppler, dtd 9/29/78

cc: w/encls.
R. S. Boyd, NRR
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