Copy given in deposition documents

8/136

[illegible] 9:30 am

[illegible] Settlement Monitoring Program :

60 days - during construction [illegible] /77 [illegible]

90 days - after [illegible] 1978

Results from last 14 [illegible] :

Reactor - 1/8 1/8 from 77 - [illegible] [illegible]

Power - Block Fill

Diesel Generator Building : 10/77 footings poured

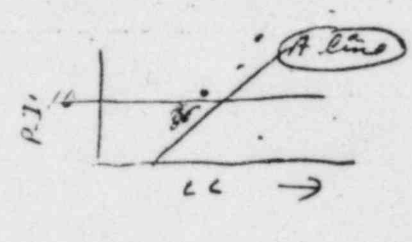
3-4 inches of settlement since pour.

s_u = 200 - 2000 psf. (unconfined and torvane lab tests)

Classification of Fines

CL fill : all above A

ML fill :



LL = 20 - 30 %

PI = 10 - 20 %

Soft Material Maybe ~~[illegible]~~ 15 - 20% of Volume.

[illegible] < 200 in 100% to 90% in sample :

Ferris:

How did fill fit to condition - don't know:

/

Peck

Fill: Placed after stockpiling - some sand in it.

Loose Zones or denser: Quite variable - or higher than in fill as placed in places.

Problem:

Plan to remove sand in July 1979.

Plan is to check collapse of CL materials in consolidometer.

Compactor: Vibratory Sheepsfoot Roller (opinion in 614 & 634)

Instrumentation:

∴ To assure job is being done.

∴ Cracks will be monitored. (Structural)

A visual crack width monitoring (feeler gages or visual) has been done 4 gages - 2 on end wall 2 on ~~intern~~ ~~all~~ interior wall on east bay.

Soil Instruments:

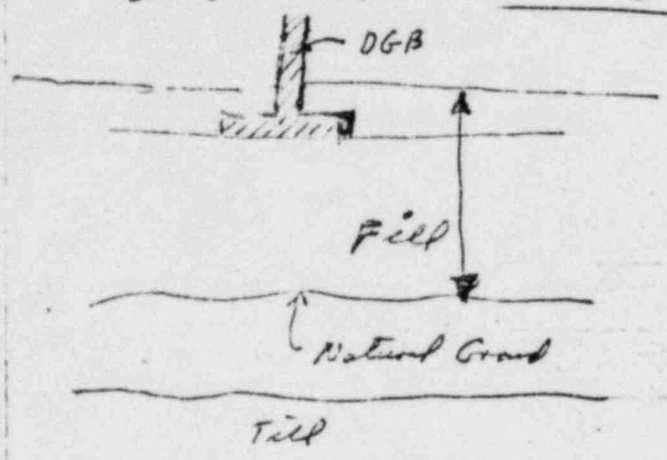
60 Boris [Anchors] / settlement probes: 7 for comparison - away from surcharge. Groups of anchors placed in a small area.

Piezometers: log time is a matter of a few hours for 10^{-6} material.

Top of fill expects to settle 6-18 inches:

→ "Natural" Ground was just stripped under DGB. No excavation to Till was done.

Condensate Pipes are encased in a larger pipe then encased in concrete.



Caps beneath Footings - will fill

Reanalysis:

Plant FSAR conformance: "will change FSAR".

Schedule on DGB: 3 month float on CPath

Stress in walls "was due to torsion" per Bechtel structural representative.

→ Hence NRC has no choice but to use PSAR criteria in evaluating with FSAR in terms of commitments [illegible]

SER is due in June for this plant. ([illegible])

SUBJECT: CPCo Midland Plant Units 1 & 2
Diesel Generator Building

Meeting with NRC at Midland

DATE: December 4, 1978

AGENDA

I. Introduction by CPCo

II. History by Bechtel (N. Swanberg)

a. Plant description
b. Settlement monitoring program
c. Brief history of site fill placement
d. Settlement of Category 1 structure
e. Settlement of diesel generator building and pedestals
f. Review settlement data and drawings (SK-C-620/623)
g. Consultants

III. Soil Exploration by Bechtel (S. Afifi)

a. Soil borings
b. Dutch cone penetrations
c. Laboratory tests
d. Possible causes

IV. Consultant's Recommendation by Dr. R.B. Peck and C.J. Dunnicliff

a. Preload
b. Instrumentation

V. Status report by Bechtel (B.C. McConnell)

a. Activities completed
b. Activities in progress Monitor settlements
c. Activities planned for future Backfill Pond;
   1) Corrective action
   2) FSAR conformance

VI. Schedule by Bechtel (P. Martinez)

a. Overall project
b. Impact on project schedule
c. Schedule for remedial measures

VII. Responses to open items in NRC Inspector's report dated 11/17/78 by Bechtel (B. Dhar)

a. Responses to Gallaghar's concerns:

1) Conflict between FSAR Table 2.5-14 and Table 2.5-10 regarding fill material description — Random Fill will be designated in FSAR
2) Conflict between FSAR Table 2.5-21 and Specification C-210 regarding required number of passes for compaction — just for Diben.
3) FSAR Section 3.8.5.5 - expected settlement — They will just change it.
4) Conflict between FSAR Figure 2.5-47 and project drawing regarding foundation elevation
5) Conflict in Specification C-210 regarding compactive effort in test method
6) Conflict between consultant's recommendation and Specification C-210 regarding lift thickness — 8" vs 12"
7) ± 2% tolerance in moisture content permitted in Specification C-210
8) Cracks in the building structure — will repair if necessary i.e. if > 0.013" wide

b. FSAR Question 362.2 (Section 2.5.4.5.1)

VIII. Closing Comments by CPCo

Table 2.5-9 is for structural backfill.

PSAR

Structural Fill (w/in 3 ft of building outline) area

Plant Fill (Roads, etc)

Area (Open Area)

FSAR

Core Backfill Criteria (95% Bechtel) used, on Random Fill. {Maybe}

There is a record of backfills on the Random Material showing procedures that would get to

what is γ_d in ST samples

Dec 4 Mtg - Soils

NAME	ORGANIZATION
P.A. Martinez	Bechtel
KARL WIEDNER	BECHTEL
S. S. AFIFI	Bechtel
R. B. PECK	Bechtel Consultant
W.R. FERRIS	BECHTEL
MO ROTHWELL	BECHTEL
DB Miller	CPCO - Project
T. C. Cooke	CPCO - PROJECT
J. Betts	Bechtel
W.L. BARCLAY	BECHTEL
G.L. Richardson	Bechtel
A. J. BOOS	"
D. E. HORN	CPCo - QA
W. R Bird	" "
R.M. Wheeler	CPCO - PMO
G. A. Hunt	CPCO - Engrg Services
D.E. Sibbald	CPCO Project
JOHN DUNNICLIFF	Bechtel Consultant
Austin MARSHALL	BECHTEL - GEOTECH
Y.K. Lin	" "
B.C. McConnel	"
B. Dunn	"
N. Swanberg	Bechtel

12/4/78

Name	Organization	12/4/78	12/7/78
Darl Hood	NRC/DPM	✓	✓
Gene Gallagher	NRC Region III (IE)	✓	
Daniel Gilden	NRC/NRR Geosciences	✓	✓
Lyman Heller	" " "	✓	✓
Ronald Cook	NRC Resident Inspector	✓	✓

Consumers Exhibit # 2 (Kane) 8/86 6/18/80
1 of 1
J. Kane

Subject: Midland, Units 1 & 2
Questions on NRC Review Policy of Cooling Ponds (Cat. II)

General Comments

1. COE request for addt'l explorations in cooling pond dike system (Refer to Jun. 13, 1980 Memo, Knight to Tedesco)
COE has indicated the following reasons for request:
1. Concern for dike stability & pond seepage & emergency access
2. The fill that constitutes pond dikes is same type & probably received same compaction effort as plant fill now experiencing the settlement problem (Concern for dike adequacy & chance to increase knowledge on problem plant fill)

2. Because of position of Cat. I pipeline at toe of dike, a portion of Cooling Pond Embankment System & its stability would likely result in determination that dikes in this portion are also Cat. I

3. Although stated to be Cat. II, the Applicant has presented a detailed stability analysis of the cooling pond dike system. Does NRC in our review, ignore the information that is presented in the FSAR?

4. Concern of public & intervenor's conception of NRC in restricting review efforts of independent reviewers & consultant's work. Indicate NRC modification of bo

CONSUMERS
EXHIBIT #6 - (KANE)

7/25/80
8/06

MIDLAND -- Understanding of NRC Position (In Anticipation of Report)

Establish the following:

- The problems which have developed at the Midland site were not caused by NRC actions.
- These problems now require a more intense scrutiny by the NRC staff than is normally covered in our reviews. This increased level of staff review is needed to permit the staff to FULLY understand the proposed solutions and to be in a position where we can either defend acceptance of the solutions or CLEARLY identify our concerns so that they may be addressed & resolved.
- We suggest CPCo carefully consider the intent of our questions and request for information. If the information being requested is the type of information that CPCo's consultants or contractors must have originated and evaluated to come to a conclusion on adequacy or margin of safety, then there is no reasonable basis for CPCo to object to the staff's request for this information