UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY B65 '86 0801 001

: Paul Wade, Director of Fossil & Hydro Power, LP 3S 58K-C

FROM: W. M. Bivens, Manager of Power Engineering, 12-113 SB-K

DATE

AUG 0 4 1986

SUBJECT: KINGSTON STEAM PLANT - DREDGE CELL DIKE

STABILITY ANALYSIS - RESULTS

Reference your memorandum to me dated July 21, 1986 (M61 860714 986).

In accordance with your request, we have completed the stability analysis of the proposed typical dredge cell dike cross-section (see Attachment A) transmitted with the referenced memorandum. Our analysis indicates the factor of safety against failure exceeds 1.5 for all design cases with the assumption there will be no long-term ponding within this cell. In the event a long-term ponding condition did exist, the factor of safety would be less than 1.5.

Please note that normal operational procedures using dredge ponds recommend dewatering as soon as practical to avoid prolonged freestanding water. In addition, all ash/soil parameters were assumed utilizing historical soil investigation logs within ash pond sites and ash properties typically used for the various TVA fossil plants. Our analysis reflects these conditions.

Original Signed By W. M. Bivens

W. M. Bivens

OPT:DRG:HLL
Attachment
cc (Attachment):

RIMS, SL 26 C-K

O. P. Thornton, W3 D224 C-K

This was principally prepared by D. R. Galloway, (extension 4359.



S76211.05

790

780

770

760

750

740

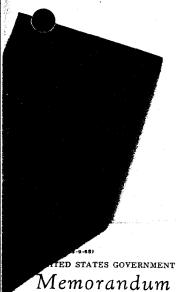
730

720

700

210

P ADDRESS R ADDRESS R ADDRESS M ADDRESS	a day	O.P. Thornton JAS OPT:JEB:HLL Attachment		TW 45D (05-9-80) INTERDIFICE MAILING SLIP
NAME W. M. Bivens PAUG (1 1986 ADDRESS ADDRESS NAME ADDRESS ADDRESS ADDRESS ADDRESS M. S. ADDRESS ADDRESS M. S. ADDRESS M. S. M. S.	At this time we think it best not to include any statements in the memorandum regarding PE doing all engineering on future projects of this type. We understand that the working level engineers were only following their middle-management directives to "get it done".	I believe central office is starting to "come around" to PE performing all engineering for Power. In fact, the F&H PR coordinator for the KIF dike work has in the past two weeks verbally requested ± 30% PE&C estimates for the following projects: 1. PAF - ASH DREDGE POND 2. PAF - AIR PREHEATER WASTE (CHEMICAL) TREATMENT POND 3. KIF - DRY FLY ASH FACILITY	Central office is preparing a formal request to you from Paul Wade to followup the verbal requests. PE will be providing scope, preliminary engineering, and the + 30% level cost estimate in FY86. A request for the budgeting (+ 10%) level estimates to be done in FY87 (OctDec. timeframe) will be forthcoming also. These projects are currently planned for FY88	TW 450 (05-9-80) INTEROFFICE MAILING SLIP



TENNESSEE VALLEY AUTHORITY

M61 -3.60714 986

...

W. M. Bivens, Manager of Power Engineering, 12-113 SB-K

FROM

Paul Wade, Director of Fossil and Hydro Power, LP 3S 58K-C

DATE

JUL 21 1986

SUBJECT:

KINGSTON FOSSIL PLANT - DREDGE CELL DIKE

We are preparing the dredge cell at Kingston to hold an additional 350,000 yd³. This requires the dikes to be raised to elevation 785, and the plant is in the process of raising those dikes now. Attached is a typical cross-section of the dike. The existing slopes (as measured) are shown in solid lines, and the intended slopes are shown in hashed lines. Please evaluate the dikes for stability using the slopes shown in hashed lines. We prefer that soil conditions be estimated because of time constraints. Should the cross-section shown have an inadequate factor of safety, please provide your recommendations as soon as possible so we can make corrections before the contractor begins work. As discussed with John Branch, of your staff, we will approve a service contract for this work in the amount of \$6,000 upon receipt. If you have any questions, please contact John Albright, extension 3505 in Chattanooga.

Charles Manager

CND:JTT:JGA:CDR
Attachment
cc (Attachment):
 RIMS, LP 3S 127H-C
 H. F. Clayton, Kingston

7/22/86 - WMB:TB cc: 0. P. Thornton, W3 D224 C-K*

*w/original attachment. Please prepare response for my signature by August 4, 1986.



JUL 22 36
FOWER High wallard
11
500 4 9
vei
T I Irra tan
Borist
<u></u>

DATE
hon 15,109
Chatta M. S.
Knax Nor.
EXTENSION
3510
Chatta M. S.
Knox Nor.
Lingeton

