## Stammler, Theodor B

From: Smith, Daniel R [Daniel.R.Smith@parsons.com]

**Sent:** Monday, March 31, 2003 7:42 AM

To: 'Toney, Calvin'

Cc: 'Stammler, Ted'; 'Petty, H. L.'

Subject: Cost estimate (conceptual level) for KIF Scrubber Gypsum Stack Concepts PR-0637

TVA has requested that I prepare quantities and send these to you for cost estimating. Attached is a zip file with drawings and an XL spreadsheet listing quantities for Gypsum Stack options 1A and 1B. These proposed options are located at the peninsula area east of the plant. This is a greenfield area. Although not listed in the quantities, I would estimate about 15% of the area will require tree removal for Option 1A, and 10% removal for Option 1B. Unfortunately, the topo background used for the dwgs does not depict the treeline, so these are my best guesses based on field observation.

There are numerous drawings attached. There are 2 basic dike layouts. The dwgs depict several options for the cap, which ultimately affect the gypsum volume. These aren't really important to the estimate, but I included them anyway. The disposal facilities are typical TVA – type installations. An earthen dike will be constructed. I've tried to detail all cut and fill volumes. Option 1A will spoil material for future final cover installation, but will require additional earthen material at closure. Option 1B will need much less additional earthen material at final closure, because it has a shorter earthen dike and is located primarily in the cut area, whereas 1A is located in the lower topographic area, and requires more initial fill for the dike than 1B.

At this point, the dwgs are not very detailed. I will probably add more detail later. Most of the quantities are based on my past experience in designing these types of disposal facilities, and from observations of TVA dwgs.

The ponds (stilling basins) are shown as rectangular areas. Basically, they would be constructed with earthen dikes (volumes are estimated), and water would flow from the pond area to the ponds. Quantities are estimated for pond features.

I am out of the office for the next 2 days (trips to KIF), but you can reach me either on my cell phone (below), or at (865) 220-4528 if you have any questions.

I will (hopefully one week from now) email you dwgs and quantities for Options 2A and 2B. These will occupy the existing dredge pond at KIF ash disposal facility. These will involve much less site development, since this area is already developed.

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