Barry Sims

From: <George.Munger.Jr@sce.com>
To: "Mike S. Williams" <mswilliams@energysolutions.com>
Cc: "Barry Sims" <barrysims@msn.com>; "Jeff Martin" <jmartin@energysolutions.com>; <John.Manso@sce.com>; "Terry Vesely" <terrence.vesely@cbi.com>
Sent: Monday, January 27, 2014 12:34 PM
Attach: Drawing 40028 GA for NIA.pdf; Proposed ISFSI Layout.docx
Subject: Re: Spent Fuel Related information

Mike,
Here is the information you requested I have available to date: See below in color for comments.
Robert Munger
(949) 368-6135

From: "Mike S. Williams" <mswilliams@energysolutions.com>
To: "george.munger.jr@sce.com" <george.munger.jr@sce.com>,
Cc: "John.Manso@sce.com" <John.Manso@sce.com>, Barry Sims <barrysims@msn.com>, Jeff Martin <jmartin@energysolutions.com>, Terry Vesely <terrence.vesely@cbi.com>
Date: 01/24/2014 03:15 PM
Subject: Spent Fuel Related information

Robert
We have not been formally introduced but I plan to rectify that next week. I am Mike Williams the Energy Solutions / CB&I Decommissioning Cost Estimate project manager. We provided a listing of information and data needs at the Kick off meeting for the DCE project. John Manso has indicated to me that you are the proper contact from which to obtain spent fuel related information needed to complete the cost estimate. I have included the below the items relating to spent fuel from the master listing. We are in a position that requires us to get this information into the cost estimating software very soon. I would appreciate your assistance to get this stuff rounded up as quickly as practical. I can be reached at PAX86818 if you have any questions
Thanks for your assistance and hope to meet you very soon – Regards Mike

Spent Fuel Information

A. Current inventory of spent fuel assemblies and activated hardware stored in each spent fuel pool. Weight, volume and approximate waste classification of activated hardware will also be required to estimate disposition costs.
2668 Fuel assemblies total. (1318 in U2 and 1350 in U3). There are approximately 526 CEA's (263 per unit) that are activated and located in the 2 spent fuel pools.
There are also 35 known/suspect damaged fuel assemblies/rod storage baskets/trash cans with fuel particulate. The weight is assumed at 800 lbs each, and the material is all expected to be greater than class C so it will need to be stored on the ISFSI pad. The volume of each trash can is equal to a fuel assembly so 16 x 16 x 176 inches. There is some material that is expected to be Class B/C that has been proposed for storage on the ISFSI. This would be waste generated from the processing of the CEA's, particularly the CEA hubs. The estimated volume is one canisters per pool which includes the CEA hubs and any additional trash in the trash cans determined to be class B/C.

B. Current inventory of spent fuel in the Independent Spent Fuel Storage Installation (ISFSI).
There are 1187 fuel assemblies located on the ISFSI pad in 50 canisters and 1 canisters full of Greater than Class C waste. 408 FA's from U2, 384 from U3, and 395 from Unit 1 (canisters have some empty cells)

C. Number, size and weight of spent fuel racks in each spent fuel pool.

The racks weight approximately 66,000 lbs each. I have 8 per unit. They are approximately 10.5 ft x 11 ft each.

D. Currently available plans and projected costs, if any, for transfer of spent fuel into dry storage.

The current plan would be to perform ISFSI expansion construction starting in mid 2015 and complete by early 2016. Fuel can then be moved to the ISFSI pad starting 2nd quarter of 2016 and ending 1st quarter of 2018. The cost to move to storage includes not only the cost of the canisters and modules, but other activities such as inspection of fuel, characterization of fuel and trash, development of loading plans, processing of CEA's for storage in the canisters. The current estimated costs for this scope of work is bounded by $265,000,000 based upon vendor proposals.

E. Construction drawings of the existing ISFSI. Currently available plans and associated costs, if any, for expansion of the existing ISFSI required for spent fuel transfer to dry storage.

The PDF drawing is the current ISFSI and the word document shows one of the proposed layouts for expansion. The estimated cost for the design and construction of the ISFSI to include a new hardened security post meeting the anticipated changes to NRC rules for ISFSI security and additional security requirements is bounded by $35,000,000 based upon vendor proposal.

F. Spent fuel schedules for transfers to dry storage and projections of annual shipments to the DOE repository for all scenarios to be analyzed.

See item D above for the schedule of moving fuel. I don't have any particular information on projected annual shipments to the DOS repository. It is not currently part of the scope of this project.

Note the $300,000,000 between items D and E above are based upon proposals supplied by dry fuel storage vendors and bounds the cost for a turn key project where the vendor is responsible for the entire scope of work and SONGS only provides Edison oversight.

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