BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of

REVIEW OF TAMPA ELECTRIC COMPANY'S 2004-2008 WATERBORNE TRANSPORTATION CONTRACT WITH TECO TRANSPORT AND ASSOCIATED BENCHMARK.

DOCKET NO. 031033-EI

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VOLUME 10

Pages 1163 through 1353

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN BRAULIO L. BAEZ COMMISSIONER J. TERRY DEASON COMMISSIONER LILA A. JABER COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER CHARLES M. DAVIDSON
DATE:	Thursday, June 10, 2004
TIME:	Commenced at 9:30 a.m. Concluded at 9:17 p.m.
PLACE:	Betty Easley Conference Center Hearing Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR Chief, Bureau of Reporting (850) 413-6732
APPEARANCE:	(As heretofore noted.)

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(Transcript follows in sequence from Volume 9.)

CHAIRMAN BAEZ: Mr. Wright, call your next witness.

MR. WRIGHT: Thanks. Mr. Chairman, CSX Transportation would call Mr. John B. Stamberg.

CHAIRMAN BAEZ: Before Mr. Stamberg takes the stand, I want to let the parties know, if you haven't figured out already, we will be finished tonight. So everybody buckle your seat belts.

Mr. Stamberg, you were sworn, sir?

THE WITNESS: Yes, that is correct.

CHAIRMAN BAEZ: Thank you.

MR. WRIGHT: In a way it's rather like a set change during the intermission at a play.

JOHN B. STAMBERG

was called as a witness on behalf of CSX Transportation, and having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WRIGHT:

Q Good afternoon, Mr. Stamberg.

A Good afternoon.

Q Are you the same John B. Stamberg who prepared and caused to be filed in this proceeding direct testimony consisting of 46 pages?

A Yes

Q Before we go on, would you please state your name and business address for the record?

A John B. Stamberg. I work for Energy Ventures Analysis at 1901 North Moore, Arlington, Virginia.

Q Thank you. Back to your testimony, do you have any changes or corrections to make to your testimony?

A No.

Q Thank you. And do you adopt this testimony as your sworn testimony today?

A Yes.

MR. WRIGHT: Mr. Chairman, if there are no objections, I would request that Mr. Stamberg's testimony be entered into the record as though read.

CHAIRMAN BAEZ: Without objection show the testimony of John Stamberg entered into the record as though read. And --

BY MR. WRIGHT:

Q Mr. Stamberg --

MR. WRIGHT: Did I interrupt you?

BY MR. WRIGHT:

Q Mr. Stamberg, did you also prepare and/or assemble and cause to be filed in this proceeding a number of exhibits that were attached to your testimony that were there designated as JBS-1 through JBS-10?

A Yes.

MR. WRIGHT: Mr. Chairman, I believe those exhibits have been marked as Exhibits 42 through 51 in the staff's exhibit list, Exhibit 1.

CHAIRMAN BAEZ: They are.

MR. WRIGHT: Thank you.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY OF JOHN B. STAMBERG, P.E.

Q. Please state your name, address, occupation and employer.

A. My name is John B. Stamberg. I am employed as Vice President of Energy Ventures Analysis, Inc. ("EVA"), 1901 North Moore Street, Suite 1200, Arlington, Virginia 22209.

BACKGROUND AND QUALIFICATIONS

Q. Please provide a brief outline of your educational background and work experience.

A. I received a Bachelor of Science Degree in Civil Engineering from the University of Maryland in 1966 and a Master of Science Degree in Sanitary Civil Engineering from Stanford University in 1967. I worked at the United States Environmental Protection Agency, primarily in the areas of water pollution control and solid waste management and handling, from 1967 to 1974. From 1974 to 1981, I worked as a Director for Energy and Environmental Analysis, Inc., in water pollution, boiler conversions, and coal unloading, storage, handling, and reclaiming. Since 1981, I have been with EVA, where I have had primary responsibility for directing EVA's engineering studies and where I have worked with electrical power plants, industrial boilers, mining engineering, and materials handling. I hold patents pending in wastewater treatment system and mineral processing applications. A copy of my resumé is attached as Exhibit ___ (JBS-1).

Q. Are you a registered professional engineer?

A. Yes. I am a registered professional engineer in the State of Louisiana.

Q. Are you a member of any professional organizations?

A. Yes. I am a member of the Water Pollution Control Federation and the Federal Water Quality Association.

PURPOSE OF TESTIMONY

Q. Please state the purpose of your testimony.

A. I am testifying on behalf of CSX Transportation ("CSXT"), an intervenor party in this proceeding before the Florida Public Service Commission ("PSC" or "Commission"). The purpose of my testimony is to present my independent evaluation, analyses, and opinions regarding the following:

a. CSXT's conceptual design and capital cost estimates for the construction of rail infrastructure that would be needed to accommodate rail deliveries of coal to Tampa Electric Company's ("TECO") Big Bend Generating Station and Polk Power Station;

b. the estimates of the capital costs for rail infrastructure prepared by Sargent & Lundy ("S&L") at the request of TECO;

c. the estimates, prepared by Sargent & Lundy at TECO's request, of the operating and maintenance ("O&M") costs associated with the rail delivery system proposed by CSXT; and

d. the capability of the proposed coal handling facilities at Big Bend Station to provide blending for solid fuels (different types of coals and petroleum coke) used by TECO at its Big Bend and Polk Stations.

Q. What is the scope of your analysis and testimony?

A. The scope of my analysis is essentially coextensive with the purposes above. I have reviewed and analyzed, independently and using independent sources for input data and factors, the cost estimates prepared by CSXT for the rail delivery infrastructure needed to accommodate rail delivery of coal at TECO's Big Bend and Polk Generating Stations.

I have also analyzed S&L's September 18, 2003 report entitled CSX Transportation – Alternative Method of Coal Delivery, Report No. SL-008160. The purpose of the S&L report was allegedly to validate the capital cost for each option proposed and to provide assessments of assumptions that qualify the bid. S&L also provided operating cost estimates. This work was done on behalf of TECO and with TECO's inputs. I obtained access to this S&L report upon signing an "Endorsement to Non-Disclosure Agreement" signed and dated February 25, 2004. TECO has classified this document as confidential.

Finally, as a result of gathering certain information and having approximately 4 hours to visit the Big Bend site, I feel that there is another engineering design solution for rail delivery of coal to Big Bend that enjoys lower capital costs, lower operating costs, quicker construction time, and less implementation difficulties than either the initial CSXT design concept or S&L's concept. Accordingly, I believe that this solution is worth evaluating. This solution would have likely been envisioned if TECO had cooperated with CSXT in attempting to identify and design a workable coal-by-rail delivery system for the Big Bend site; therefore, I refer to this new alternative as a "cooperative" design concept.

Q. Are you sponsoring any exhibits to your testimony?

A. Yes. I am sponsoring the following exhibits:

Exhibit ____(JBS-1): Resumé of John B. Stamberg, P.E.;

Exhibit ____(JBS-2): Excerpts from RS Means Heavy Construction Cost Data, 13th Edition, 1999, RS Means Square Foot Costs, 24th Annual Edition, and Dodge Unit Cost Book, 1999;

Exhibit ____(JBS-3): Conveyor Estimate Based on Cubic Storage Systems Budget Quote;

Exhibit ____(JBS-4): Conveyor Estimate Based on FMC Budget Quote;

Exhibit ____(JBS-5): Conveyor Estimate Based on Continental Conveyors Budget Quote;

Exhibit ____(JBS-6): **Rapid Discharge Pit and Conveyor – EVA Estimate;**

Exhibit ____(JBS-7): Conceptual Diagram – Cooperative Rail Delivery System;

Exhibit ____(JBS-8): **Overview of Rail Delivery Options to Big Bend;**

Exhibit ____(JBS-9): Sargent & Lundy LLC, Tampa Electric Company Big Bend and Polk Generating Stations, CSX Transportation Alternate Method of Coal Delivery, SL-008160, September 18, 2003; and

Exhibit ____(JBS-10): Sargent & Lundy LLC, Tampa Electric Company Big Bend and Polk Generating Stations, CSX Transportation Alternate Method of Coal Delivery, SL-008160, **DRAFT** September 4, 2003.

SUMMARY OF TESTIMONY

Q. Please summarize your testimony.

A. CSXT prepared capital cost estimates for two rail delivery infrastructure systems at TECO's Big Bend Station and two systems at Polk Station. CSXT proposed to pay for what CSXT estimated, based on preliminary engineering analyses, to be the reasonable costs of all necessary infrastructure improvements to accommodate rail deliveries of coal to both Big Bend and Polk. Despite significant constraints, imposed by TECO, on CSXT's ability to adequately view the Big Bend site and existing facilities, CSXT's estimates were entirely reasonable. My estimates, presented in this testimony, indicate that the actual costs will probably be somewhat higher than estimated by CSXT but still below the total amount that CSXT offered to pay for the needed facilities.

TECO hired S&L on August 27, 2003 to prepare a study of the capital and operating and maintenance costs associated with a rail delivery system for coal at Big Bend and Polk. S&L's study is not based on standard engineering estimating techniques or information sources, is not based on normal data inputs, and produced severely overstated cost estimates for the capital costs associated with CSXT's proposed rail delivery facilities at Big Bend (and Polk). The total overstatement is approximately $20 million to $40 million, depending on which S&L value one takes as the reference point.

Not surprisingly, S&L's estimates of O&M costs are also severely overstated. My estimates, presented in this testimony, indicate that S&L's O&M estimates are overstated by a factor of about four times the correct cost.

In addition, the coal handling facilities at Big Bend Station will continue to have excellent blending capabilities following the installation of the proposed CSXT rail delivery systems.

EVALUATION OF CSXT'S CONCEPTUAL DESIGN AND COST ESTIMATES FOR RAIL DELIVERY INFRASTRUCTURE TO SUPPLY COAL TO BIG BEND AND POLK

Q. Have you reviewed CSXT's July 2003 bid?

A. Yes.

Q. Do you understand how the cost estimates were made by CSXT?

A. Yes.

Q. How did you come to understand CSXT's cost estimating procedure?

A. I met with Bob White and Mike Bullock of CSXT, and Richard Schumann of RAS Engineering Plus, Inc., on February 20, 2004 at CSXT's headquarters in Jacksonville, Florida for the purpose of learning how Mr. Schumann, Mr. White, and the other CSXT engineering personnel prepared their design and their cost estimates.

Q. Who developed CSXT's cost estimates?

A. Bob White of CSXT, with assistance from CSXT's internal engineering sections, and Richard (Dick) Schumann of RAS Engineering Plus, Inc. prepared CSXT's design concept and cost estimates for the rail delivery systems identified in CSXT's proposals (bids) presented to TECO in 2002 and 2003.

Q. What information did Mr. White and Mr. Schumann use to develop the cost estimates?

A. In August 2002, TECO provided CSXT an out-of-date macro-scale plot plan. In addition, TECO allowed Mr. White and Mr. Schumann to have a 30-minute "drive

through" visit to the Big Bend Station, escorted by Mr. Martin Duff of TECO, in which Mr. White and Mr. Schumann were not allowed to get out of their car, not allowed to take pictures, and not allowed to ask technical questions of Mr. Duff.

Q. Why was the out-of-date macro-scale plot plan a problem?

A. There were four major misleading problems with the out-of-date plot plan that made determining a possible rail delivery system difficult: (1) The Polk truck loading system was not shown on this plot plan. The current load out for Polk is in the northern most blend silo. It was not shown. Mr. Duff identified a unit that was about 1,000 feet south of the current Polk truck load out. (2) The area on the out of date plot plan had a single area marked G4, which is and was then divided into a slag pond and a dead coal storage area. (3) The two main radial stackers were not shown on the out-of-date macro-scale plot plan. (4) The out-of-date plot plan showed two parallel tracks on the south side of the station, one of which was in the process of being dug up to accommodate piping that was being installed in association with a new water desalinization plant being installed adjacent to the Big Bend plant site. Mr. Duff orally stated that this second track would be restored, when in fact it was not.

Q. How did the out-of-date plot plan handicap CSXT's efforts to propose and cost out rail delivery systems and Polk shuttle reloading systems?

A. First, the misinformation increased the length of the Polk reloading conveyor. Second, the incorrect area-G4 information did not allow Mr. White and Mr. Schumann to select the best location for the new proposed radial stacker to be placed such that the Big Bend's radial stacker could reach more of the rail delivered coal in the 1.0 to 2.0

MMTPY system. Finally, the fact that CSXT was told that certain missing or removed tracks would be restored, but which were not restored, directly impacted the needed trackage for rail coal unloading and reloading systems.

Q. Would a 30-minute, "no pictures," "stay in your car," drive through visit or "tour" of Big Bend Station, or any other power plant, be sufficient to select an optimum rail delivery system?

A. No.

Q. Why not?

A. The Big Bend coal yard has 69 transfer points identified in its air permit and is a large flexible blending facility with numerous pieces of equipment. Many items cannot be seen from the car. Any new conveyor, the most widely used piece of equipment in a coal yard, must be in a straight line. Checking lines of sight cannot be done from a car nor is 30 minutes a sufficient time to identify or examine various alternatives.

Q. Did Mr. White and Mr. Schumann talk to anyone from Big Bend that could describe how the equipment was used?

A. No. TECO did not give Mr. White and Mr. Schumann access to any Big Bend engineering or operating personnel.

Q. What type of information would be readily available to engineers or railroad personnel if they wanted to propose a possible coal-by-rail delivery system?

A. Under normal circumstances, there are several easily available sources of information: accurate, detailed site plans with all significant equipment and facilities identified; access to coal yard operators, plant engineers, or supervisors who know how the coal yard is operated; utility drawings for electric power, water, drainage, and other systems; air permits; and reasonable time to walk, view, and understand the coal yard.

Q. Given the handicaps that you just identified, how were Mr. White and Mr. Schumann able to propose and estimate the cost of a rail unloading system?

A. They have sufficient experience that they could -- and did -- propose a reasonable solution, which may not be the lowest cost or the only viable solution. With their knowledge and experience, a reasonable solution could be proposed and costs estimated for purposes of evaluating the viability of potential business opportunities. If more site information or access were provided or obtained, a lower cost solution would only make CSXT's bid more attractive.

Q. Can you describe the reasonable solution proposed by CSXT?

A. Yes. The design concept proposed by CSXT had the following key features.

1. The coal would be brought into the plant in 90-car unit trains via new trackage on and within the west side fence in 45 car-segments.
2. The coal would be dumped into a pit either newly built or using the existing rail unloading pit for limestone.
3. Then the coal would be transported by conveyor to the coal barge system transfer house either (a) via two straight line conveyors or (b) via a long west-moving conveyor connecting to a northwest-moving conveyor to the coal barge transfer

house. (The alternative for lower volumes of coal deliveries would only move westward then directly north).

4. The Polk shuttle coal would be picked up at the truck loading source and conveyed to a 250-ton silo which would load the coal into the Polk shuttle cars.

Q. Is this a workable concept?

A. Yes.

Q. Have you visited the Big Bend site?

A. Yes. I drove around the site and surrounding area during March 8-11, 2004. I obtained information from the Hillsborough County Property Appraiser. I also visited the Environmental Protection Commission of Hillsborough County to review air permit files and wetland locations. At this time, it was uncertain whether TECO would allow me to visit the site. On March 18, 2004, I was able to visit Big Bend. I was able to get out of the car and view equipment. I was there for about four hours and there was no time limit on my visit, and TECO personnel were generally able to answer my questions. I was allowed to make linear measurements, but TECO did not allow me to take pictures or measure noise levels.

Q. Were the options proposed by CSXT viable and adequate engineering concepts?

A. Yes.

Q. What, if any, adjustments in CSXT's concept do you feel are needed or appropriate?

A. Four specific adjustments are needed, as follows.

1. Because the right-of-way for the second track was not restored, and because desalinization pump motors on-site are vertical and a pump control house (about 16 feet high) is now in this right-of-way, the long conveyor proposed by CSXT has to be elevated to about 18 feet to clear the existing equipment.

2. The limestone conveyor goes slightly north by about 12 feet. The proposed elevated conveyor needed a 12-foot southern orientation. This means that if the limestone conveyor is used, a 24-foot conveyor and another transfer house is needed.

3. The limestone rail pit and conveyor do not have a magnetic separator.

4. The existing limestone pit has a baghouse to control dust. A surfactant dust suppression system might be a better approach. This type of dust suppression is used at the dock unloading system.

Q. Would those adjustments result in added costs, above those initially estimated by Mr. White and Mr. Schumann?

A. Yes.

Q. Can you estimate the resulting increase in cost of making these adjustments?

A. Yes.

1. The elevation of the long conveyor would add about $50,000 in foundation cost, $25,000 for ladders, $265,000 for step supports, and $330,000 for walkways for a total increase of $670,000.

2. The dust suppression equipment cost would be $85,000 to $95,000 delivered and about $10,000 to install, for a mid-range total of $100,000. This is identical equipment (Dust Buster) from the same supplier (Midwest Supply) as the dust suppression equipment used for the Big Bend barge unloading system.

3. A stationary electromagnetic metal separator would cost $18,600 for the magnet and 10 KW rectifier to convert AC current to DC current, plus an estimated cost of $7,400 to install. This totals to $26,000.

4. An additional 24-foot conveyor and transfer house would cost about $350,000. This 24-foot conveyor would only be needed in the [redacted]system.

Q. What is the total cost that would be needed to add to CSXT's bids in your opinion?

A. For the large system [redacted] it would be $796,000 ($670,000 + $100,000 + $26,000). For the small system it would be about $896,000 ($420,000 pro rated elevated conveyor length + $100,000 + $26,000 + $350,000).

Q. Do you know how Mr. White and Mr. Schumann prepared their estimates?

A. Yes. The coal handling system cost estimates were provided by Mr. Schumann; CSXT personnel provided the cost estimates for rail and heavy equipment. No formal report was made by Mr. Schumann. Vendor information was obtained orally by Mr. Schumann, and Mr. Schumann's estimated costs for Big Bend were then verbally transferred to Bob White of CSXT. The systems at Polk to unload coal had some written estimates for the Polk scenarios.

Mr. Schumann used a variety of approaches to prepare his cost estimates, including specifically: obtaining verbal up-to-date costs from various vendors

(particularly for the conveyor systems) and estimating the pit costs based on similar equipment (adjusted to 2003 dollars). In some cases, Mr. Schumann proposed a surrogate design and used various factors to estimate the costs. The estimates were determined to be appropriate by Mr. Schumann when comparing the estimates to his previous work. The specifics were as follows.

A. [redacted] Bid at ± 1,500 tons per hour ("TPH").

1. **Modified Limestone Pit -- [redacted] by Schumann.** The existing limestone pit or under-car loading system was designed for rail car bottom loading. It is covered with a bag house to control dust. Only truck-delivered limestone is being delivered or predicted to be delivered per TECO. Thus, the pit is ideal for conventional coal rail car unloading at a rate of about 1,500 TPH. The details of the belt (size and rate) that were provided may need to be upgraded to meet the 1,500 TPH rate capability. The cost to upgrade the belt rates and use the limestone rail unloading pit for coal was estimated to be [redacted] based on Mr. Schumann's experience with similar projects. The coal would then be put on the long conveyor. Mr. Schumann felt that a new limestone truck unloading system was needed to prevent coal and limestone from being contaminated. (See No. 5 below.)

2. **Long Conveyor -- [redacted] by Schumann.** The conveyor taking the coal from the limestone pit conveyor would be a 54" wide conveyor running 2,100 feet west to a short conveyor running north. Mr. Schumann provided a cost estimate of a complete system, i.e., a system that was covered, fire protected, and provided with access walks, lights, and other

necessary appurtenances, complete with engineering and installation. He contacted several conveyor vendors to verify his cost estimate using the most current cost for idlers, frames, and other components. The 54" wide conveyor could handle 2,500 TPH. The estimated cost conformed to the range of cost experienced on other projects.

3. **Short Conveyor --[redacted] by Schumann.** The same approach as used for the long conveyor was used to estimate the cost of the short conveyor

4. **200 Foot Radial Stacker --[redacted] by Schumann.** The radial stacker cost was based on previous cost experience and escalated to 2003 dollars.

5. **New Track Dump and Conveyor --[redacted] by Schumann.** If the rail coal delivery system is to use the limestone pit system located under the railroad track, another limestone pit and conveyor would be desirable for the truck delivery of limestone. The new limestone pit was estimated by using approximate cost estimates and factors for materials, installation and overhead and profit, as well as engineering for a surrogate design of a pit and conveyor system. The new limestone pit and pit conveyor would feed the existing limestone transfer house. The costs were in the expected range of similar equipment installations.

B. [redacted] MMTPY Bid @ ±2,500 TPH.

1. **Rapid Discharge System --[redacted] by Schumann.** The rapid discharge system cost estimate was made in the same manner as the new limestone truck dump and conveyor system, i.e., a surrogate design and updated conveyor cost were used

2. **Long Conveyor at 3,300 ft. -- [redacted] by Schumann.** The long conveyor system was estimated in the same manner as the previous conveyors using updated conveyor component costs backed-up by Mr. Schumann's experience.

3. **Short Conveyor at 500 ft. -- [redacted]** Same method as above.

4. **Transfer Station -- [redacted] by Schumann.** The transfer station cost estimate was based on previous cost experience for equipment similar to that at Big Bend and roughly escalated to 2003 dollars.

5. **Three 45-Car Tracks -- [redacted] by CSXT.** The costs of upgrading and installing new trackage were identified by Mr. Schumann and Mr. White of CSXT and the cost estimated by CSXT engineers. The cost included restoring the track disturbed by the desalinization piping.

6. **Truck Dump and Conveyors -- [redacted] by Schumann.** Same as 1.0 to 2.0 MM Ton Bid.

C. Polk Shuttle Train Loading at Big Bend - [redacted]

1. **Conveyor and Transfer Station -- [redacted] by Schumann.** This estimate was based on updated conveyor cost and surrogate design. The transfer station was similarly estimated.

2. **250 to Batch Silo -- [redacted] by Schumann.** The batch silo was considered to be useful and was estimated by escalating similar systems to 2003 dollars.

3. **New Trackage -- [redacted] by CSXT.** The needed trackage was determined by Schumann and White of CSXT and the cost was estimated by CSXT transportation engineers.

Q. If Mr. Schumann based his estimate on a national average cost, should his estimates be adjusted for Big Bend?

A. Since Mr. Schumann based his estimates on national average costs for this mechanical work, it may be necessary to adjust his estimates to reflect local differences between Tampa-area costs and national average costs. Currently the "RS Means" (RS Means Heavy Construction Cost Data 13th Edition, 1999, and RS Means Square Foot Costs, 24th Annual Edition) indexes show the cost of construction in Tampa to be 80% of the national average for overall work (1.039 index for Tampa divided by 1.302 for the national average). See Exhibit ____(JBS-2).

Q. Since this work is heavily mechanical, is there a way to take into account that this proposed system is mechanical?

A. Yes. The Dodge Unit Cost Book subdivides its index by type of work. In 1999, mechanical/electrical work was 0.89 versus 0.86 for overall work. Thus, mechanical/ electrical work in Tampa is 3.5% more costly than overall work in Tampa.

Q. From the above sources, can you determine whether and how to adjust Mr. Schumann's estimates to Big Bend?

A. Yes. The correct adjustment is made by multiplying the RS Means index value of 0.80 (80%) by the Dodge indicator of increased cost for mechanical/electrical work of 1.035. This indicates that mechanical/electrical work at Big Bend should be approximately 83% of the national average.

Q. Using this information, was there a cost overstatement or implied contingency built into Mr. Schumann's estimates?

A. Yes. Mr. Schumann added 5% contingency to his estimates based on national averages. This coupled with the above lower cost in Tampa of 17% results in 21% contingency in Mr. Schumann's estimates.

Q. Did CSXT include in its proposals (bids) an offer to pay up to [redacted] of Mr. Schumann's estimated costs for the rail delivery infrastructure?

A. Yes.

Q. Did CSXT have a contingency built into its estimate for rail trackage?

A. No.

Q. Can you estimate the contingency in the CSXT bid?

A. Yes. CSXT's estimated cost of [redacted] for track has no internal contingency, and the remaining [redacted] in rail infrastructure costs has a 21% estimated internal contingency for a total of [redacted] implied contingency. With a [redacted] estimate, the implied internal contingency is thus approximately 17.5%.

Q. Since CSXT was willing to pay [redacted] above their estimate, what is the approximate total contingency inherent in CSXT's proposal?

A. Since CSXT was willing to pay up to [redacted] percent of [redacted] for the rail delivery improvements at Big Bend, the total "built in" contingency in CSXT's bid was, or is, approximately 45 percent. This is calculated by dividing the difference between (a) what

CSXT was willing to pay [redacted] and (b) what the project cost was excluding any contingency [redacted] implied contingency = [redacted], this calculation indicates that CSXT was willing to pay 45.4 percent more than the no-contingency cost estimate for the rail delivery facilities at Big Bend.

Q. Have you made an independent estimate of the cost in CSXT's bids?

A. Yes.

Q. What was your estimated rail track cost?

A. I used 1999 RS Means factors for rail, grading to level with purchased fill material, spreading and compaction of the fill material. I also estimated the cost of bumpers, switches, switch timber, road crossings, signage and one signal. I then escalated the cost to 2003 by the RS Means escalation factor and adjusted this to reflect engineering and indirect cost. My estimate is $1,231,284 versus CSXT's [redacted] estimate.

Q. What is your estimate for conveyors?

A. I obtained a budget quote for a covered 2,500 ton per hour ("TPH") @ 750 FPM 54" conveyor from Cubic Storage Systems, Inc., a local (Tampa area) conveyor supplier. Beginning with Cubic Storage Systems, Inc.'s budget quote, I added in my cost estimates for foundations, walkways, lights and fire protection to estimate the installed cost based on Cubic Storage Systems, Inc.'s quote. This yielded about $3,873,467 for 3,800 feet. This is about $1,020/LF, which equates to $3,366,000 for the long conveyor as compared to the [redacted] estimate by CSXT. This also equates to $550,150 for the short conveyor as compared to [redacted] estimated by CSXT. See Exhibit ____(JBS-3).

Q. Is there another independent basis for estimating the costs of the needed conveyors?

A. Yes. It is based on FMC, another well-known conveyor supplier, supplying a covered or hooded conveyor with cover lights and walkway. With 30 feet on center supports, FMC estimates the cost will be $1,083/LF. The long conveyor would thus cost about $3,573,900. CSXT estimated the cost at [redacted] Using this approach, I estimated the short conveyor to cost $541,500. CSXT estimated the short conveyor cost to be [redacted] See Exhibit ____(JBS-4).

Q. Did you estimate the cost using the same manufacturer of conveyors as used at Big Bend?

A. Yes. Big Bend coal yard uses Continental Conveyors, and Continental Conveyors quoted $2,733,060 for the long conveyor as compared to CSXT's [redacted] estimate and $414,100 for the short conveyor as compared to CSXT's [redacted] See Exhibit ____(JBS-5).

Q. Do you have an independent calculation of the cost of the transfer house?

A. I made some rough calculations and concluded that the [redacted] is within the reasonable range of costs for such a structure with hoppers.

Q. Do you have an independent calculation of a new truck limestone pit and conveyor?

A. Yes. My estimate indicates that this may be about $400,000. CSXT estimated this new limestone pit and conveyor to cost [redacted]

Q. Do you have an independent estimate of the rapid discharge system?

A. Yes, using a surrogate design and RS Means factors, I estimated the cost including the pit conveyor at $1,590,391. See Exhibit ____(JBS-6).

Q. Do you have an independent summary of the CSXT system cost estimates?

A. Yes. The estimates using the three different methodologies (CSXT, Cubic Storage/EVA, Continental Conveyor, and FMC/EVA) are shown below based on three vendor quotes and EVA calculations. My estimates are between 3.3% and 5.9% higher than the CSXT estimate. However, after having access to the site that Mr. Schumann and Mr. White did not have, my best estimate after including adjustments for an elevated conveyor adjustment, dust suppression, and an electromagnetic separator, is 15.5% to 17.1% higher than CSXT's estimate. My estimates are still below CSXT's willingness to pay amount of [redacted] Thus, I conclude that CSXT's estimates are basically correct and accurate. The problem is that CSXT was denied the necessary access and information to include all the necessary items.

	CSXT's Estimate	EVA'S Estimate Cubic Storage	EVA's Estimate FMC
I. Original Conceptual Design			
Rapid Dump System	[redacted]	$ 1,590,391	$ 1,590,391
Long Conveyor	[redacted]	3,366,000	3,527,700
Short Conveyor	[redacted]	550,150	574,560
Transfer Station	[redacted]	230,000	230,000
Rail	[redacted]	1,231,284	1,231,284
Limestone Truck Dump	[redacted]	400,000	400,000
Subtotal	[redacted]	$ 7,367,825	$ 7,553.935
Percentage Difference		[redacted]	[redacted]
Elevated Long Conveyor		$ 670,000	$ 670,000
Dust Suppression		100,000	100,000
Electromagnetic		26,000	26,000
Subtotal		$ 796,000	$ 796,000
Total		**$ 8,163,825**	**$ 8,349,935**
Percentage		[redacted]	[redacted]

Q. At this stage of development, what is the accuracy of the engineering estimates?

A. The cost estimates are ± 20% at this point. A project that has had the design completed and well-written specifications will be bid within 3-5% of competitive bidders.

EVA Alternate "Cooperative" Rail Delivery Concept

Q. From your observations and information gathered during your site visits and with the information you now have, are there any other potential conceptual approaches for delivering coal to Big Bend with lower cost?

A. Yes. Because this concept should have been readily identified by a cooperative effort between TECO and CSXT, rather than by TECO's limiting CSXT's information regarding and access to the Big Bend site, I call this a "cooperative" approach.

Q. Can you describe the system?

A. Yes. The east side of the Big Bend site is congested with limestone and gypsum system equipment as well as other maintenance and warehouse facilities. The south side where the current limestone pit is located and where a new rapid rail discharge system would be located is congested with FGD piping north of the remaining rail line. The corridor to the south where the second track was envisioned and was to be restored is now congested with the desalinization piping and pumps. This would require raising the proposed CSXT conveyor up 20 feet or so. An alternative concept is to put the new rapid discharge system, pit and conveyor, near the tracks and near the east end of the slag pond. This would allow the coal unloading equipment to be located on the western part of the Big Bend plant site, thus avoiding further congestion at the east end of the plant. It would, however, require the 90-car unit trains to be split into three 30-car segments rather than two 45-car segments. See Exhibit ____(JBS-7).

Q. Would this "cooperative" approach result in any capital cost savings?

A. Yes. Even if all-new equipment were used to implement and install this design concept, I estimate that the total cost would be slightly less than $5 million, as opposed to the [redacted] million estimated by CSXT. If salvageable coal-handling equipment from TECO's Gannon Station were used, the total capital costs would be on the order of $3.6 million.

Q. Please provide the estimated capital costs for this system, both with and without the use of Gannon equipment.

A. See the table below.

	EVA Estimate Cooperative Concept New Equipment	EVA Estimate Cooperative Concept Used Gannon Equipment	Remarks
Rapid Discharge System	$ 1,590,391	$ 1,379,391	The new unit would be unchanged. Two Gannon rail car hoppers are usable ($115,000). A Gannon transfer station saves $96,000.
Long Conveyor	1,346,400	1,346,400	The long conveyor would only be 1,300 ft long and cost was proportional to the long conveyor
Short Conveyor	550,150	275,075	Use of two Gannon 1,600 tph conveyors would save new conveyor purchase (50% or $275,075).
Transfer Station	230,000	115,000	Use Gannon unit with stacker reclaimers would work out fine (50% or $115,000 savings)
Rail	1,231,284	1,231,284	Unchanged.
Limestone Truck Dump	400,000	400,000	
Elevation of Conveyor	N/A	N/A	
Dust Suppression	100,000	100,000	
Electromagnetic	26,000	26,000	
Total	**$ 4,979,225**	**$ 3,641,866**	$1,337,359 savings using abandoned Gannon Equipment

Q. Can you summarize the capital cost, operating capacities, train unloading time and construction time for the various alternatives to unload coal at Big Bend such as CSXT's original bid, your adjustments of CSXT's original bid and the above system with three 30-car segments?

A. Yes. This information is presented in Exhibit ____(JBS-8).

Q. Have you also prepared an estimate of the O&M costs for your "cooperative" 3-30 car unit train segment approach?

A. The table below summarizes my O&M estimates for the cooperative system.

EVA Estimate of O&M Cost for a 3-30 Car Train Segment Approach

	Minimum Estimate	Maximum Estimate
Variable		
Power	($17,000)	($32,000)
Surfactant	0	0
Labor	0	157,440
Fixed		
Labor (less belt length)	$150,654	$150,654
Maintenance	149,100	149,100
Taxes	2,169	2,169
Insurance	2,237	2,237
Total	**$287,160**	**$429,600**

EVALUATION OF SARGENT & LUNDY'S CAPITAL COST ESTIMATES

Q. Did you review the estimated capital costs in the S&L report, and if so, what were your conclusions regarding S&L's capital cost estimates?

A. Yes, I reviewed the S&L study. A copy of this study is included as Exhibit ____(JBS-9) to my testimony. My major conclusions are as follows:

1. The S&L report was hastily put together between August 27, 2003 until the draft was presented September 4, 2003. (A copy of this draft report is included as Exhibit ____(JBS-10) to my testimony.) Labor Day weekend was in the middle of this period (August 30 to September 1). There is no reference to any S&L site visit or vendor quotes made or used in the S&L report. The final S&L report was

submitted on September 18, 2003 with no evidence of site visits or vendor information.

2. The two most expensive items in the CSXT proposed [redacted] ton project, the conveyor systems and the construction of the rapid discharge system, are overpriced in the September 4, 2003 draft report based on my contact with three conveyor vendors (one being Continental Conveyor that is the dominate supplier of Big Bend's conveyors) and based on using nationally recognized standard unit price factors for the construction for a pit similar but longer than the existing limestone pit. Other components were also overpriced.

3 Between the September 4, 2003 draft and the September 18, 2003 final report, the conveyor cost were unexplainably doubled, and the cost for the coffer dam and dewatering associated with the rapid discharge pit also doubled for a [redacted] increase in construction cost, which with engineering and indirect cost factors resulted in a total [redacted] increase. Also, S&L included a category "Other Cost and Adjustments" at [redacted] without explanation. Thus, these unexplained increases or "other cost and adjustments" alone are [redacted] and total more than CSXT's estimate of [redacted] for the entire project for the [redacted] ton bid.

4. There are numerous redundant items that are subcomponents of other equipment such as conveyor fireproofing or lighting, or unnecessary items such as HVAC (air conditioning at [redacted] for the track hopper and the transfer house. With an open structured transfer house with conveyors feeding hoppers, I do not know why air conditioning is needed. Also, I cannot figure out why a [redacted] temporary coffer dam is needed.

5. In S&L's Exhibit 2A-2, there is [redacted] that compose the equipment to unload trains at 2500 TPH and to load shuttle trains. Fully [redacted] of the [redacted] items are exact multiples of the magic [redacted] in S&L's proprietary model and [redacted] of the [redacted] items have construction and erection cost at [redacted] **of total equipment or material** cost. This is a strong indication that little detailed engineering effort was put into the numbers that were plugged into the proprietary model.

6. If a proprietary model was used by S&L it is likely that model was used as a mere calculation tool for plug in numbers and not for making engineering equipment selections or calculating estimated costs.

7 There was no effort to make cost savings or cost-effective choices. S&L failed to consider the use of coal handling equipment at Gannon or to explore ways to minimize construction of trackage; these are the most obvious cost saving opportunities. The coal fired Gannon plant, which is about a dozen miles away, was being phased out in the same time frame as the CSXT bid was being developed. Also TECO owns land on both sides of Pembroke Road, north and east of the Big Bend plant, with three tracks long enough to hold at least 45 rail cars. Two of the tracks are used by IMC that cross TECO's land. IMC has a locomotive and handles 90 car trains that cross TECO land. Also, National Gypsum has track on this same TECO parcel. No effort was made to coordinate rail movements on TECO's own land or share the locomotive.

Q. What was the schedule for the S&L report development?

A. The work was initiated on Wednesday August 27, 2003 with scope of work and schedule in "Revision O" (p. 435-436 of docket).

Q. What was the proposed schedule?

A. Per "Revision O" the S&L and TE Schedule was:

- 8/27/03 Kickoff (Wednesday)
- 8/29/03 Conference Call (Friday)
- 8/30/03-9/01/03 Labor Day Weekend
- 9/02/03 Conference Call (Tuesday)
- 9/03/03 Conference Call (Wednesday)
- 9/04/03 Conference Call and Preliminary Report (Thursday)
- 9/05/03 Conference Call and Final Report (Friday)

Q. Did S&L meet this schedule?

A. S&L met the schedule to provide a preliminary draft dated September 4, 2003. However a final report was late and it was completed and submitted on September 18, 2003, as S&L Report Number SL-008160.

Q. Was the schedule adequate to evaluate CSXT's proposal?

A. No.

Q. Why do you believe the schedule was not adequate?

A. The proposed schedule did not permit time for S&L engineers to visit the Big Bend and Polk sites or obtain vendor quotes on key equipment, especially with the Labor Day weekend in the middle of the schedule.

Q. Why is a site visit necessary?

A. One of the key steps in initially evaluating the CSXT proposal was to visit the site in order to understand the location of the proposed equipment, access to electricity, access to fire protection water, horizontal or vertical interferences, the type of foundations used as a basis to estimate future foundation designs, the type and style of equipment actually used; to determine if any potential wetlands or other site or permit conditions that might impact the proposed CSXT proposed design.

Q. Is there any evidence that any of the S&L engineers visited the site during the scheduled work period?

A. No.

Q. How did S&L get information to do its study?

A. TECO provided some site information, operating cost estimates, and wetland quantities (but not location).

Q. What site information was provided to S&L by TECO?

A. TECO's Dennis Barrette, Senior Engineer-Civil Structure/Generation Engineering provided a series of drawings to S&L's Paula Guletsky on August 29, 2003.

Q. Were the Big Bend site drawings sufficient to evaluate the proposed rail locations for the CSXT proposals for Big Bend?

A. No. The site plans were of poor quality and were not clear as to the existence of the second southern track that is now blocked by the desalinization plant piping. This lack of

detail made it difficult for S&L to locate the new rail that would be needed. Also, vertical interfaces or the lack of vertical interfaces could not be determined.

Q. Was there adequate information to estimate foundation needs?

A. Some information was useful. The drawing entitled "Foundation-Plans and Sections-Limestone Unloading Facilities" was sufficient to use as a basis for a surrogate design for estimating the cost of a new rapid unloading pit using the current rail limestone pit, as an example. Also, the drawings on the limestone pit conveyors (Conveyor-LB, pages 254 and 255) and the new truck loadout facility (p. 251) show that "hooded" or "covered" conveyors were used and newly used at Big Bend. S&L added excessive cost for foundations and much more expensive conveyors than those used or required at Big Bend.

Q. Was there adequate information on the type and style of conveyors to be used as part of the CSXT proposed system?

A. The drawings supplied by Dennis Barrette showed hooded or covered conveyors in the limestone unloading system (Conveyor LB, docket page 25) and hooded or covered conveyors in the new truck load out conveyor (docket pages 254 and 255). However, TECO's Jimmy Konstas had told TECO's Ralph Painter (docket page 923) that more costly fully enclosed conveyors were necessary. The September 18, 2003 S&L states that the hooded conveyors were assumed and using enclosed conveyors would be [redacted] more. Thus, the conveyor should have been correctly estimated. The excess cost for conveyors is not explained.

Q. Were vendor budget quotes obtained or used by S&L to develop their cost estimate?

A. The record shows no evidence of vendor contacts.

Q. How did S&L get its key cost information?

A. The assumptions or basis used to develop the cost in S&L cost items has been requested. It has not been provided.

Q. What are the approximate costs for the long and short conveyors in the S&L study?

A. The conveyor costs by category from the S&L study are shown in the following table.

TABLE REDACTED

Q. What did your vendor budget quotes show?

A. The vendor budget quotes show the following:

1. Continental Conveyor estimate was for $2,733,000 / 3,300 LF or $828/LF and would compare with S&L cost of [redacted] LF for equipment, construction and direct add ons. S&L estimate is [redacted] of Continental Conveyor's estimated cost.
2. FMC bid was presented incorrectly with two belts tied together. FMC's bid did not include foundations, and electrical lines. S&L also added a transfer house. The quote was for [redacted] (± 15% to ±20%). Adjusting this by subtracting S&L estimate for a transfer house at [redacted], the quote would be $5,571,000 for 5,400 LF or about $1,032/LF (±15% to ±20%) plus the cost of foundation and electrical lines and engineering. Subtracting S&L foundation cost ([redacted]), electric line cost ([redacted]) and EPC cost ([redacted]) would indicate that a comparable cost would be about [redacted]. S&L's estimate is [redacted] of FMC's estimate
3. Cubic Storage's estimate after adjustment by EVA was about $1,020/LF for an engineered system less foundation and electrical lines. Even after removing S&L's estimates for foundations [redacted]) and electric lines [redacted], S&L's cost for conveyors would still be [redacted] or [redacted] of the estimate based on Cubic Storage System's budget quote.

Q. What was the rapid discharge cost by category from the S&L study?

A. The rapid discharge system costs by category from the S&L study are:

TABLE
REDACTED

Q. What is your estimate for the rapid discharge system?

A. I estimate the cost would be $1,590,391 including engineering. S&L's estimate is [redacted] of my estimate, including the coffer dam and dewatering costs. If the coffer dam and dewatering are unrelated to rapid discharge system, S&L's estimate would be [redacted] or [redacted] of my estimate.

Q. Do you have any idea why S&L's costs are substantially higher than your estimates or CSXT's estimate?

A. It is my opinion that S&L included unnecessary items such as the coffer dam and dewatering, and redundant items such as lighting, fire protection, foundations, belt

feeders, hoists, and trolleys that were possibly included in the already overpriced conveyor estimate. S&L may have estimated the cost for the wrong type of conveyors.

Q. What are the types of conveyors that might have been incorrectly estimated by S&L?

A. The types of conveyors incorrectly estimated by S&L are:

1. **Open Conveyors.** Open to the atmosphere, with no cover or enclosure. These are the lowest cost conveyors.
2. **Covered Conveyors.** Also known as hooded conveyors or enclosed conveyors, these conveyors are covered on the top but not on the bottom and are slightly more expensive than open conveyors.
3. **Enclosed Conveyors** to prevent spillage into traffic, people, passing underneath. Enclosed conveyors are more expensive than covered conveyors.

Q. What are the types of conveyors required?

A. The original and new conveyors are covered or hooded. TECO's old and current air permit calls the existing conveyor "enclosed."

Q. Could S&L have been confused?

A. It is unlikely because in the final report, S&L stated that they assumed the conveyors were hooded and that if enclosed the cost estimate would be increased another [redacted] (page 4 of S&L's report).

Q. Would increasing the belt from 54 inches that was proposed by CSXT to the 60-inch wide conveyor that S&L used for estimating purpose account for the increased cost?

A. No. This would increase cost 8% over a 54" belt not [redacted] or more. Also, all three vendors selected a 54-inch belt for the 2,500 TPH systems. Further, Big Bend has a 54-inch belt in its coal yard rated at 4000 TPH (belt No. 1-Conveyor per Table C-4A WL50 Conveyor Physical Data in their coal yard manual). S&L's 60-inch belt size is unusual.

Q. Are you familiar with any proprietary model that S&L may have used?

A. Yes. S&L developed software (SOAPP)^{TM} standing for State of the Art Power Plant under sponsorship of EPRI (Electric Power Research Institute). This model is described in a paper entitled "Using the SOAPP Workstation^{TM} for Planning and Conceptual Design" presented at the International Symposium on Improved Technology for Fossil Power Plants (March 1-3, 1993).

Q. Was this model used?

A. I do not know. The categories are similar to the above paper but no evidence that any improved efficiency, enhanced availability, or cost-effectiveness efforts were made. S&L may have plugged in numbers and used their model format to print out the assumptions that were externally made. The fact that so many of the results were exact multipliers of [redacted] and used [redacted] stallation factors is an unlikely result of the above model and more likely resulted from external inputs bypassing the modeling capability of the software.

Q. Did the above model round off cost?

A. No. The sample calculation presented in the EPRI paper carried calculations to 3 to 6 significant digits.

Q. Would you rely on the S&L cost estimates?

A. No, the S&L cost estimates are too high relative to vendor supplied and recognized cost estimating guidelines. The S&L estimates appear not to have been based on site visits or vendor quotes. The bases for the cost estimates are unexplained.

Q. Should TECO have questioned this document?

A. Yes. A major utility with over 2 miles of conveyors at Big Bend (some recently built) for coal, limestone and gypsum should have sufficient expertise to evaluate and question the S&L cost estimates. TECO's engineering department should have been able to do the estimate of CSXT's proposal and evaluate S&L's cost estimates.

Q. Did TECO review the S&L study?

A. It appears that Ralph Painter was the individual to oversee the report. There is no record that he critiqued the report.

EVALUATION OF SARGENT & LUNDY'S O&M COST ESTIMATES

Q. Did CSX Transportation prepare an estimate of operation and maintenance ("O&M") cost, property tax increases and insurance increases associated with its proposed rail unloading systems at Big Bend?

A. No.

Q. Did S&L prepare an estimate of O&M costs, property taxes, and insurance cost increases in its September 18, 2003 report number SL-008160 for Big Bend?

A. Yes.

Q. Have you reviewed S&L's O&M, tax, and insurance cost estimates for the rail delivery system at Big Bend?

A. Yes.

Q. Do you agree with S&L's findings in Exhibit 2A-3 titled "Operating Cost Estimate [redacted] Ton Rail Delivery of Coal Big Bend"?

A. No. For the reasons set forth below, I believe that S&L overstated O&M costs.

Q. Do you disagree with S&L's variable cost for power in Exhibit 2A-3?

A. Yes, I disagree.

Q. Why do you disagree?

A. The stated additional power cost estimated by S&L is between [redacted] and [redacted] The details of how this was calculated were not provided. However, S&L failed to deduct the power savings resulting from not using the coal dock unloading system.

Q. Is the savings more or less than the power used by the proposed CSXT rail system?

A. The savings resulting from using the proposed CSXT rail system would be more than the power used to unload coal from barges. The CSXT system would reduce power usage for coal handling, not increase it.

Q. Explain why the CSXT rail coal delivery would save power during unloading.

A. There are two main reasons. First, the current dock unloading system is designed for 4,000 TPH to accommodate the barge bucket elevator. The clamshell normally operates at an average of between 2,000 TPH and 2,500 TPH, and electricity is less efficiently used when oversized equipment is used. Second, the power to lift coal on conveyors is more than level conveyor transport. The dock lifts the coal up about 40 feet above the dock with the clamshell and 60 feet with the bucket elevator. Added to this lift is the initial lift from the barge to the dock level, which is about another 15 feet. Thus, the lift for the dock equipment is 55 to 75 feet. The coal is then dropped down to the dock level and conveyed horizontally. Then the coal is lifted again about 35 feet to the coal yard transfer house. Therefore coal is lifted 90 to 110 feet in the dock operation. The CSXT system would drop coal from the rail car about 20 feet to a below ground hopper. Then the coal would be conveyed to the surface to the same coal yard transfer house up another 35 to 40 feet to the coal yard transfer house. Thus the rail systems would lift the coal 55 to 60 feet. Consequently, rail-delivered coal needs to be lifted to heights about 55 to 60% of the total lifting height required by the current barge-dock system.

Q. How much power would be saved by the rail system?

A. Around 25% less power would be required. At the same cost values used by S&L, there would be a net savings of about $17,000 to $32,000, instead of an increased cost of [redacted]. This would reduce S&L's estimated O&M cost by [redacted] per year.

Q. Do you agree with S&L's variable cost increase for surfactant in Exhibit 2A-3?

A. No.

Q. Why do you disagree?

A. The use of surfactant is a function of the volume of coal delivery. The total amount of coal used at Big Bend would be the same whether or not the coal is delivered by barge or rail. Thus, the amount of surfactant used and the cost of surfactant would not increase. There would be no variable cost increase for surfactant at Big Bend for a rail system. There is, however, a need to invest in another dust suppression system, which uses the surfactant; this cost is recognized in my capital cost estimates above.

Q. Do you agree with S&L's variable labor cost for CSXT's proposed system at Big Bend in S&L's Exhibit 2A-3?

A. No. First, the labor costs were not derived by S&L's analysis. The costs were given to S&L by TECO in Ralph Painter's [redacted] Painter's estimate is [redacted] additional people, [redacted] process specialists and [redacted] laborers. This is excessive.

Q. What do you think the variable labor cost should be?

A. Since both a barge and train cannot be unloaded simultaneously and since the current unloading staff must be available around the clock, it is possible that no additional staff will be needed. However, an individual manning the security gates for the train and process specialist manning the equipment could be needed.

Q. What do you believe the variable operating labor cost should be?

A. It should be between no increase and $157,440; that being based on TECO's cost for a process specialist and a laborer.

Q. Do you agree with the fixed labor cost estimate in S&L Exhibit 2A-3?

A. Yes. There is now about 11,000 to 12,000 feet of conveyor at Big Bend in the coal yard, limestone systems, and gypsum systems. If CSXT's proposal adds 3,800 feet of conveyor, this represents around a 33% increase and up to five people may be needed as proposed by TECO and S&L.

Q. Do you agree with S&L's fixed maintenance cost of [redacted] of installed cost?

A. No. The [redacted] factor is in the correct range; however, the installed cost of the rail delivery system is more properly estimated at [redacted] for the Big Bend system to unload coal. Thus, the fixed maintenance cost should be about $213,000 per year, not [redacted]

Q. How is the [redacted] in the S&L Exhibit 2A-3 split between taxes and insurance?

A. Based on TECO's Ralph Painter's September 3, 2003 memo to S&L, [redacted] is projected insurance cost and [redacted] is for taxes.

Q. Are the projected taxes on property correct?

A. No.

Q. Why?

A. The property upon which Big Bend was built is Folio Number 051461-000, PIN Number PU-09-31-19-ZZZ-000001-73650.0 per Hillsborough County records. It has an appraised "building value" of $31,328,418 and a "land value" of $16,433,413 with an "extra feature value" of $2,822,877. Thus total "taxable value" is $50,584,708. Subtracting the "land value", the "taxable value" is $34,151,295. Last year TECO paid $1,330,888.27 or 2.63% of appraised value. A rough estimate of actual value of the capital cost for Big Bend is ± $1,000/kw of capacity multiplied by 2,080,000 kW (2,080 MW) of capacity. Thus the capital cost of Big Bend is about $2,080,000,000 ($2.08 billion). The tax appraisal, less the land, is $34,151,295 or 1.64% of the above rough capital cost. Treated the same way by the tax assessor the taxable value of [redacted] is [redacted] The estimated tax increase would be 2.63% of [redacted] or [redacted]

Q. Have you spoken to a Hillsborough County Appraiser?

A. Yes.

Q. What was his response?

A. Jim Gibson, of the South County office of the Hillsborough County Property Appraiser's Office, felt that a [redacted] conveyor system was a tangible asset and would not materially increase the property value and the tax impact would be negligible. He referred me to TECO's David Keene. Mr. Keene did not comment and referred me back to Mr. Gibson.

Q. Do you agree with TECO's insurance rate of 0.04500% of capital cost?

A. The rate seems reasonable. However, since CSXT's proposed rail unloading system is expected to cost [redacted], the actual cost is likely to be about [redacted] per year, not [redacted] as stated in the S&L Exhibit 2A-3.

Q. Based on the above answer, what would your estimate be of the operating cost of CSXT's rail coal delivery system as compared to the estimate made by S&L?

A. See my table below.

	EVA Estimate		S&L Estimate per Exhibit 2A-3	
Variable				
Power	($17,000)	($32,000)	[redacted]	[redacted]
Surfactant	0	0	[redacted]	[redacted]
Labor	0	157,440	[redacted]	[redacted]
Fixed				
Labor	$301,308	$301,308	[redacted]	[redacted]
Maintenance	213,000	213,000	[redacted]	[redacted]
Taxes	3,066	3,066	[redacted]	[redacted]
Insurance	3,195	3,195	[redacted]	[redacted]
Total	**$503,569**	**$646,009**	[redacted]	[redacted]

Q. Have you reviewed similar operating costs for the [redacted] ton per year CSXT case, the Polk shuttle train option, and the Polk unloading system?

A. Yes. They are similarly overstated, except for the power cost.

Q. Why are there no power cost savings at Polk?

A. The Polk shuttle loading at Big Bend and Polk unloading systems will have an increase in electrical use at each location, as these are new systems.

EVALUATION OF SOLID FUEL BLENDING CAPABILITY AT BIG BEND STATION

Q. Can different coals or pet coke be blended at Big Bend?

A. Yes. The Big Bend coal handling system was designed for blending and has a versatile system for blending coal.

Q. Can you briefly describe the coal handling system at Big Bend?

A. Yes. Currently the coal is unloaded by barge then lifted by a bucket elevator or a clamshell, or less frequently by barge self-unloaders. It then is lowered or discharged to a south moving dock conveyor and is lifted to a dock transfer house and lowered a second time. The coal is lifted and conveyed eastward, at right angles to the dock, to a second transfer house. At this second transfer house, the coal can be directed to one of two main conveyors. This second transfer house is where three CSXT, S&L and three-30-car train segment systems all would deliver coal. From this point, the coal pathway through the yard would be the same for barge source or rail source coal. From this second transfer house the southern main east-moving conveyor is fed. A shorter north-moving conveyor feeds the northern main east-moving belt.

Both main east-moving belts feed one of two stacker-reclaimers serving each main belt. Both of these stacker-reclaimers can move east or west along the two respective main belts, both can place the coal on either the northern coal storage area or the southern coal storage area, and both can out-stack coal into the center coal area. Additionally there is a dead storage yard south of the south storage area. These coal storage yards can hold about 1,078,000 tons (at 45° stacking, 54#/ft^3, 40 feet high). There is an overflow storage capacity in the south and west area of the coal yard. It requires a

bulldozer, loader, or scraper (pan) to move the coal to this area and a bulldozer, loader, or scraper (pan) to move the coal back into the area reachable by the south stacker-reclaimer.

Retrieving or reclaiming the coal is equally flexible as out-stacking. Both stacker-reclaimers can be positioned on these two main belts and reclaim coal by placing it back on either of the main belts. Both stacker reclaimers can simultaneously retrieve coal. Big Bend also has two mobile conveyors that can be placed anywhere in the yard and fed with a loader. Thus up to four coal or pet coke types can be blended at any one time. The selected coals are fed by both main conveyors to two shorter conveyors to a blending tower.

The blending tower feeds two belts to six 2,000-ton silos for a total of 12,000 tons of capacity and six possible different blends of coal. Under the six silos are two bottom hoppers each that can feed the two belts. Thus two different coal blends can be again blended or re-blended and sent to the crusher house. The coals leave the crusher house northward via two belts that feed northward to another transfer house that feeds the boiler day bins with two belts.

In summary, many types of coal can be placed in the coal yard and up to 4 coals can be blended at any one time and sent to 6 different blend silos. The 6 different blending silos can be re-blended because they have double bottom hoppers to feed two independent belts. The coal storage yard and blend silos have a total capacity of about 1,090,000 tons.

Q. Does TECO agree with this description?

A. Yes. TECO's document "Tampa Electric: Big Bend Station: Coalyard Operator Training Manual" which is 245 pages long goes into every detail of the above summary.

Q. Do any documents indicate how many types of coals are available for blending?

A. Yes, the diagram labeled "Coal Field General Arrangement 2004 – Current Yard" shows eight different fuel types, seven different coals and a pet coke area.

Q. You estimated that the coal yard could hold 1,028,000 tons. Has Big Bend ever had anywhere near that capacity?

A. Yes, TECO's document "Tampa Electric Company, Big Bend Station, Fuel Inventory, April 1999" shows that 1,041,730 tons with 10 different coals or pet coke fuels.

Q. Will the [redacted] CSXT system impact Big Bend's blending capabilities?

A. No, the CSXT [redacted] er year system will feed the second transfer house that is presently fed by the dock area. From there, coal can be blended just as it is at present.

Q. Will the [redacted] CSXT system impact Big Bend's blending capabilities?

A. Yes. The CSXT [redacted] system would put the coal in reach of the southern main belt reclaimer and in the dead storage area in the south and west area of the coal yard. The result would be that the coal yard would then have less flexibility than at present. Even so, the coal handling facilities at Big Bend Station will continue to have excellent blending capabilities following the installation of either of the proposed CSXT rail delivery systems.

Q. Does this conclude your direct testimony?

A. Yes.

BY MR. WRIGHT:

Q Mr. Stamberg, have you prepared a summary of your testimony for the Commission?

A Yes.

Q Will you please deliver it at this time?

A Yes.

Q Thank you.

A My scope of work was basically to evaluate the conceptual approach and the costs prepared by CSX. Also, I was to look at the capital cost estimate and O&M estimate that was prepared by Sargent and Lundy. And then the third piece was to take a look at the Big Bend coal blending capability and to see if the CSX proposal impacted that blending capability.

First, as to rail service, Big Bend is served by three rail spurs. One spur serves the limestone pit, and it had two parallel tracks, one of which has been removed for the desalinization piping that has been put in place of it. A second spur had gone into the boiler area, and is now truncated by the limestone storage area. Then the third spur goes north of the plant to the combustion turbines. Big Bend's air permit now allows rail delivery of limestone and rail reloading of coal or solid fuels onto railcars, presumably for Polk. Big Bend's spur is served by a branch line that serves Big Bend, IMC and National Gyp (phonetic). This spur line is on property that is owned by --

MR. FONS: Mr. Chairman.

CHAIRMAN BAEZ: Hold on, Mr. Stamberg.

MR. FONS: Mr. Chairman, I will need to object at this point. I don't see anywhere in Mr. Stamberg's testimony where he has set forth this information. This is not a summary of his testimony. I believe he is giving new testimony.

CHAIRMAN BAEZ: Specifically, which part of his -- at what point did he drift off, Mr. Fons?

MR. FONS: Pardon me?

CHAIRMAN BAEZ: What portion exactly --

MR. FONS: Oh, the portion when he started talking about the air permits and about the rail spurs and the three different locations.

CHAIRMAN BAEZ: Mr. Stamberg, either you show -- if you don't believe that that is not part of your testimony, you are going to have to show me where it is. Otherwise, you are going to move on, please.

MR. WRIGHT: Mr. Stamberg, the Chairman's instruction is this. If you can direct us in your testimony where the material regarding the spurs I think that you were just describing is to be found, then you may proceed. Otherwise, you are going to have to restrict yourself to the specific content of your prefiled direct testimony.

CHAIRMAN BAEZ: Okay. That is what I meant to say.

THE WITNESS: The relocation and realignment of the

rail system is part of the cost estimate made by CSX, as well as Sargent and Lundy. And I didn't raise it this way, and so I will go on.

The major portion is that the rail coal delivery only requires modifications on-site and to the air permit, okay.

Blending. Big Bend has one of the best coal blending systems of any coal-fired power plant that I am aware of. It can store and reclaim eight to nine different solid fuels. The Big Bend facility can reclaim and blend three to four types of coal at any one time, and it has six different silos to store these materials. The CSX proposal for the two and a half to 5 million system will not impact this excellent blending capability at all. And what I did is for the system, I did an independent analysis of the capital costs provided by CSX. I used a different approach. And I was able to get access to the site for about four hours which resulted in me having to add a few additional items. The big item was the desalinization piping took out one of the rail spurs and made it -- they have vertical pumps that make you have to put the conveyor about 18 feet into the air. That adds about $670,000 to the cost because that rail spur was turned over or allowed to be used by the desalinization plant. I also felt that it was a good idea to put dust suppressant at the coal unloading facility and an electromagnet. And I called the same vendors that supplied the equipment to Big Bend's existing site and got quotes on

parallel equipment. My estimate for the coal unloading and delivery system was 8.4 million, marginally more than the CSX proposal for the similar effort and within the 20 percent CSX willingness to pay.

My approach was, as I stated before, for the equipment like the electromagnet and the dust suppression is to use the same equipment supplier or a similar supplier and get site-specific bids. I got bids for completely engineered and installed equipment. Engineering, construction, installation.

For the pit I developed a surrogate design that I thought would work for the system specific to that site and used standard published bid estimating criteria to fill in where there weren't vendor quotes.

One of the vendor quotes that I got was from Continental Conveyor. They are the supplier of most of the conveyors in the coal yard at Big Bend. They knew what the general specifications were, and their quote was for about $830 for an engineered installed system, as identified in the CSX approach.

The other company I approached was FMC Technology. They do not have conveyers on the site, but they used the Conveyor Equipment Manufacturers Association criteria for the quote, and spelled out those things in detail. Their quote was for about $1,070 per linear foot. The CSX conveyor estimate, which I can't speak to, was between these two quotes.

As for the rapid discharge pit, I looked specifically at Big Bend. I think the best place to put the pit is adjacent or attached to the existing rail limestone pit. It has access stairway for O&M, ventilation, dust collection, and an existing tunnel for the unloaded coal to come out to the transfer point. This configuration allows the pit to be less deep. It can piggyback on the auxilliary equipment already available to the pit, and it only needs to be slightly wider than the railcar.

And then there was another thing that I did, even though this approach was well thought out by CSX, and I think Sargent and Lundy agrees with that in their report, I looked at some other alternatives that looked possible. One was to move the rapid discharge pit from the front, which is the east part of the property, to the back side close to the coal yard. The beauty of this is it shortens substantially the length of conveyor, which is the most expensive piece of equipment in this whole approach. It cuts that down to nearly half. It uses a three 30-car segment train movement rather than a two 45-car segment. Using this approach, my estimate, if you used all new equipment, would be about $5 million. This could be reduced to 3.6 million if used equipment at Gannon that was running, you know, as little as a couple of years ago, the hoppers, conveyors, stacker reclaimers, the nozzles and fire protection equipment could be used. So that approach is something that if the two groups were to be cooperating might

have surfaced as an idea. Where the tracks would go for the storage of one of the legs of the third 30-car train would go right under the current Polk coal loading conveyor that loads trucks. And they could also load without any extra cost the trains. They already have the air permit to do so.

With respect to S&L's capital cost, I have some criticism of that. They made no site visit for the preparation of the report. They essentially did the draft in seven days over Memorial weekend. They had no site-specific vendor quotes. The conveyor costs were inappropriately based on conveyors unlike those built or required at Big Bend. S&L used conveyor installation costs on the large conveyors that were twice that recommended by conveyor manufacturers or used in other places s in Sargent and Lundy's study. They took the big items and put and excessive installation cost in that. The large conveyors are the easiest of the conveyors to go by to build. They have road access on one side and rail on the other. And you couldn't find a more ideal installation situation. This resulted in the S&L estimate for conveyors to be over many times. I won't mention the percentage because that might give away confidentiality.

The rapid unloading pit was excessively large, excessively deep, and used an unnecessary difficult construction approach which might be related to a lack of knowledge of site conditions or soil conditions. This resulted

in a similarly multiple-fold increase in the pit cost over my estimate. S&L also used redundant, unnecessary, or overpriced estimates in their report. In fact, 22 or 38 items were exact multiples of the same number and there were no vendor quotes or backup to these numbers provided to us.

Further, on the S&L operation and maintenance costs, they were not independently developed by Sargent and Lundy. They were based on TECO-supplied information. One of the big problems in the O&M cost provided by S&L is they failed to deduct the power used to unload coal at the dock. They assume everything is done at the rail unloading. In fact, the power used to unload railcars is less than unloading the barge. And I can go into that in some detail.

So, actually, there is a net savings as you bring coal in by rail. It is already lifted up, if you would. Also, they add a fairly high number for surfactant use for dust suppression, and it doesn't make any difference if you are going to suppress the dust from coal whether it comes in to the station by rail. It has a suppression in there and goes through a covered conveyor as opposed to suppressing it at the dock on an open uncovered conveyor. So there is really zero increase. The surfactant you've got to spend is proportional to the coal not what method.

And, also, I checked with the Hillsborough County tax appraiser and the Big Bend tax history on the Internet, and

their projected taxes were completely unrealistic.

And, again, when I made all of those adjustments, EBA's O&M costs are less than -- are only a fraction of the O&M costs, and I won't give that fraction.

BY MR. WRIGHT:

Q Does that conclude your summary?

A Yes.

MR. WRIGHT: Thank you. Mr. Stamberg is tendered for cross.

CHAIRMAN BAEZ: Thank you, Mr. Wright.

Mr. Vandiver.

MR. VANDIVER: No questions.

CHAIRMAN BAEZ: Ms. Kaufman.

MS. KAUFMAN: No questions. Mr. Twomey.

CHAIRMAN BAEZ: Mr. Twomey, I see you strolling up.

MR. TWOMEY: I am not even going to kid you by saying a couple of hours. I have no questions.

CHAIRMAN BAEZ: Ms. Rodan.

MS. RODAN: I have just a few questions.

CROSS EXAMINATION

BY MS. RODAN:

Q Mr. Stamberg, on Page 13 of your testimony, Lines 3 through 5.

A Excuse me, what page?

Q Page 13, Lines 3 through 5. You indicate that

Mr. Schumann prepared his estimate and then compared it to his previous work, is that correct?

A Yes.

Q And then on Page 14, Lines 17 through 18, you state that Mr. Schumann compared his estimates to the range of costs experienced on similar equipment installations, is that correct?

A Yes.

Q Is the reference you made to Mr. Schumann's previous work a reference to his cost estimates of the various equipment and facilities related to other projects or the actual costs of installation of the various equipment and facilities in question?

A Yes. He used his prior knowledge and adjusted as best he could to the Big Bend situation.

Q Was the reference to his cost estimates or the actual costs?

A Mr. Schumann did not use FMC Technologies for his estimate.

Q Thank you. Please refer to Page 21 of your testimony, and my questions refer to the table shown on that page. Specifically, EVA's estimates using the cubic storage and FMC methodologies.

A Yes.

Q If rail facilities were installed to match the

specifications of the facilities you believe are appropriate for the retrofit of Big Bend and Polk --

A Could you repeat that?

Q Sure. If rail facilities were installed to match the specifications of the facilities you believe are appropriate for the retrofit of Big Bend and Polk for rail delivery as you reference in testimony?

A Yes, this refers to Big Bend and the CSXT's where appropriate.

Q Okay. Could such equipment and facilities have a significant value in reuse or in salvage, assuming Tampa Electric stopped using coal at Big Bend in 2007 through 2010?

A If they stopped using them, they abandon them in place. They could have a secondary market, but I am not sure what that would be.

MS. RODAN: Okay. Thank you. That is all the questions I have.

CHAIRMAN BAEZ: Commissioners, no questions?

Mr. Fons.

MR. FONS: Thank you, Mr. Chairman.

CROSS EXAMINATION

BY MR. FONS:

Q Good afternoon, Mr. Stamberg.

A Good afternoon.

Q My name is John Fons, and I am going to be

questioning you this afternoon on behalf of Tampa Electric.

Am I correct, Mr. Stamberg, that you have worked for Energy Venture Analysis for 20 years?

A Yes.

Q And you have worked for Dr. Sansom since 1971, beginning at Energy and Environmental Analysis, Inc.?

A Yes.

Q While you have worked for -- and let's just call them EVA and EEA, is that acceptable?

A Yes.

Q While you have worked for these two firms, has either of these firms ever held itself out to clients or potential clients as being a construction design or plant engineering firm?

A We have done some of that, but it is a minor portion of what we do.

Q Has EVA or EEA ever designed or overseen the design of a coal-fired power plant?

A We have not designed a coal-fired power plant, but we have done a lot of work in the preliminary stages of coal-fired power plants.

Q How many?

A For the Department of Energy, FEA group, we did site visits at 32 power plants that were switched from coal to oil or natural gas and were needing to switch back to coal. And we

did technical and environmental impact reviews of those power plants. We also, for the Environmental Protection Agency, evaluated the relative cost of putting in FGD, flue gas desulfurizations for the top 100 power plants that were built by coal. Big Bend and Gannon were in those groups.

Also, we looked at, for the EPRI, which is the Electric Power Research Institute, we did a financially driven review of low cost power plants. We identified recently built power plants and then categorized them and found which ones were low priced and followed up on the reasons why they were, and that one included Big Bend Unit 4.

Q Did any of this work involve the rail delivery of coal and the unloading facilities associated therewith?

A The 32 power plants did. The 100 flue gas desulfurization was a limestone delivery issue, and the financially driven pulverized coal study we did for EPRI did include the cost of the coal yard as well as the rest of the facility.

Q Have you ever designed or overseen the design of a coal-fired power plant coal unloading and distribution system?

A No.

Q Have you, as an engineer, during the last 20 years seen any construction project through to its commercial operation?

A Yes.

Q And what was that?

A We designed the West Monroe Wastewater Treatment Plant.

Q So it was a water treatment plant?

A What?

Q A water treatment plant?

A Wastewater treatment plant.

Q Right. That did not involve either a coal-fired plant or the delivery of coal, did it?

A No, but it did require the delivery of a special aggregate from Kentucky by barge down the Mississippi, up the Wachita (phonetic), unloading that, conveying it, screening it.

Q Have you, as an engineer, ever seen through to its commercial operation any construction project involving a coal-fired power plant or a coal-fired power plant coal unloading and coal distribution system?

A No.

Q Are you familiar with the engineering firm of Sargent and Lundy?

A Yes.

Q And would you agree, subject to check, that Sargent and Lundy's design and engineering work is solely related to the electric power business?

A I don't know that for a fact, but I know they are active in that area.

Q Would you accept subject to check?

A I would have to check. I don't know how I would approach finding out everything that they do.

Q Well, let me suggest that you could check by going to wwwslchicago.com and you would be able to check. So would you accept subject to check what I've just said?

A I will check when I get back to the office.

Q Would you also agree, subject to check, that Sargent and Lundy has been providing engineering and consulting services to the electric power business for more than 100 years?

A I don't know how long they have been doing it, but I know they are active in that arena.

Q Do you know how many coal-fired operating power plants have been engineered, designed, and constructed by Sargent and Lundy?

A No.

Q Would you accept, subject to check, over 1,400 fossil fuel units?

A I would still have to check.

Q But would you accept subject to check?

A I guess so.

Q Do you know how many electric power clients Sargent and Lundy has served over the last 100 years?

A I don't have that number on the top of my tongue.

Q Would you agree, subject to check, over 1,200 electric power clients?

A Subject to check.

Q Is it your belief, Mr. Stamberg, that the cost estimate prepared by Sargent and Lundy for Tampa Electric in September 2003, and which is attached to your testimony as Exhibit JBS-9, is the first such cost estimate for a rail coal delivery system ever prepared by Sargent and Lundy in its one-hundred-year history?

A I don't know how many they have done.

Q But you would agree with me that your cost estimate prepared for CSXT is the first such cost estimate for a coal unloading and delivery system that you or EVA has ever prepared for as long as you have been an engineer, isn't that correct?

A We prepared that kind of material --

MR. FONS: Mr. Chairman, may I? I think that was a yes or no. Would you agree with me?

CHAIRMAN BAEZ: Mr. Stamberg, the -- and I can't -- I guess I can't repeat it enough. Start with a yes or no answer, and you can elaborate as much as you want and couch your answer or throw as many caveats as you have to.

THE WITNESS: Could you go back over that again?

BY MR. FONS:

Q Yes. Would you agree with me, that your cost estimate prepared on behalf of CSXT is the first such cost

estimate for a coal unloading and delivery system that you or EVA has ever prepared for as long as you have been an engineer?

A No.

Q How many others have you done where it has been a coal unloading and delivery system?

A We looked at power plants at Lee, Cliftside, Marshall River Bend, and looked at alternate rail, rail/truck unloading, intermodal and interplant truck transfer of coal.

Q How about for a rail coal unloading system, is this the first cost estimate you have ever done for a rail coal delivery system?

A The answer was no, and I was going over the list.

Q All right.

A We also worked at White Bluff and looked at alternate rail route and cost, and we also looked at alternative barge concepts which eventually was implemented. We also did due diligence review of the coal unloading systems at Oak Union (phonetic) and Coletto Creek (phonetic), both in Texas.

Q And were you the project engineer on that?

A We were responsible for those aspects of it as the prime engineer.

Q As the what?

A As the lead engineer on those team efforts.

Q Did you prepare the cost estimate?

A Yes.

Q You personally prepared the cost estimates?

A Yes.

Q You are certainly not contending that Sargent and Lundy does not know what it takes in terms of equipment, material, and labor to construct a rail delivered coal unloading and distribution facility, are you?

A State that -- are we talking about Sargent and Lundy or this particular study?

Q No, we are talking -- yes, about this particular study or -- yes, this particular study. You are not contending, are you, that Sargent and Lundy does not know what it takes in terms of equipment, materials, and labor to construct a rail delivered coal unloading and distribution facility?

MR. WRIGHT: Mr. Chairman, I object to the form of that question. There are just too many negatives in it.

CHAIRMAN BAEZ: Mr. Fons --

MR. FONS: I'll restate it.

BY MR. FONS:

Q Are you saying that Sargent and Lundy does not know what it takes in terms of equipment, material, and labor to construct a rail delivered coal unloading and distribution facility?

A In my summary I provided the shortcomings of this particular study.

Q Do you believe that Sargent and Lundy could reign as an industry leader in its field for over 100 years if its cost estimates were three or four times the necessary costs for projects they have worked on?

MR. WRIGHT: I object to the form. It assumes a fact not in evidence. I don't think he's established --

CHAIRMAN BAEZ: I have to agree, Mr. Fons, it's -- you know, this whole thing about reigning and -- no, the other raining, I guess -- maybe it is raining, I don't know.

BY MR. FONS:

Q Mr. Stamberg, what makes you think that Sargent and Lundy would take cost estimating shortcuts or add unnecessary equipment on a routine project like this and risk its reputation as an industry leader in its field?

A One of the things is Sargent and Lundy developed for EPRI a state of the art power plant cost estimating model that was peer grouped and reviewed by the Electric Power Research Institute, and some of the approaches in this particular study are inconsistent with some of the things that were available in that state of the art power plant modeling project that they had.

Q Would you turn to Page 1 of your Exhibit JBS-9?

A Page what?

Q One.

MR. WRIGHT: Excuse me, Mr. Chairman. If I could

just direct the witness. Mr. Fons was asking you about Page 1 of your Exhibit JBS-9, not Page 1 of your testimony.

BY MR. FONS:

Q And it is actually Page 3 of 44, which is identified as Page 1 of the study. Do you have your Exhibit JBS-9?

A Is this the Sargent and Lundy study?

Q Yes, it is.

A That is the September 8th version, not the draft.

Q It is the September 18th version.

A Right. Okay.

Q Would you agree that on the bottom of that page there is what I would call a chart that compares the CSXT estimate with the S&L estimate?

A Yes.

Q And would you agree with me that the dollar amounts of the CSXT and Sargent and Lundy cost estimates are significantly different?

A Yes.

Q All right. Now, let me --

COMMISSIONER JABER: Mr. Fons, I'm sorry to interrupt. What page of 44 did you say?

MR. FONS: Page 3 of 44.

BY MR. FONS:

Q Now, Mr. Stamberg, under the CSXT proposal, who was going to build the coal unloading facilities?

A My understanding was CSX was going to pay for it. It is not clear who was going to be in charge of building it. I am certain that it would probably require input from both the utility and CSX.

Q Who would be ultimately responsible for that particular facility function in the manner in which it was intended?

A Probably it would be a mutual decision on what needed to be done.

Q Well, where in the proposal does it indicate, the proposal from CSXT, that CSXT would have any part in the building of the facility?

A I think if you listened to CSX, Mr. White's testimony today, he said that the differences would be negotiated or ironed out.

Q I'm not asking about differences. I am asking about the responsibility for building the facility. Can you point to me where in the CSXT proposal that CSXT would have any responsibility other than advancing the funds for building this plant?

A I am not aware of where that is stated in their bid.

Q But ultimately when the -- if this plant -- if this will facility was to be built, who would operate it?

A Big Bend.

Q It would be Tampa Electric, isn't that correct?

A Yes.

Q And would that particular facility also have to be integrated into the other facilities that are already in existence at Big Bend?

A That is correct.

Q And who would have the responsibility for that?

A The design engineer and the constructor.

Q And what do you -- what I'm trying to find out is who has the ultimate responsibility for the operation of that facility?

A TECO, Big Bend.

Q All right. And to the extent that the costs that are set forth on this chart -- in this chart on Page 3 of 44 exceed the CSXT estimate, who bears those costs?

A I think Bob White addressed that.

Q Do you know? Just answer me do you know who bears those costs?

A From this morning testimony, I do not.

Q Are you familiar with the rail delivered cost -- coal unloading cost estimate prepared by CSXT and included in its October 2002 proposal to Tampa Electric?

A 2002?

Q Yes.

A I am only familiar with the latest one.

Q You are not familiar with the original proposal in

October of 2002?

A No.

Q So EVA or you did not have any involvement in the development of that proposal?

A No, sir.

Q Have you ever seen a cost estimate from CSXT with regard to this 2002 proposal?

A Could you state that again?

Q Have you ever seen the estimate prepared by CSXT as part of the 2002 proposal to Tampa Electric?

A I don't believe I do.

Q So you don't know who prepared the cost estimate?

A My understanding was it was a combined effort between Mr. Schumann of RAS Engineering and CSX.

Q Anytime since October 2002 have you seen the cost estimate prepared by CSXT that was included as part of its proposal to Tampa Electric in October of 2002?

A Yes.

Q And when did you first see that?

A Late February of 2004.

Q And that was after CSXT had not only made the 2002 proposal, but also after CSXT had made the July 2003 proposals, is that correct?

A Correct.

Q And was the proposal that you saw -- the CSXT cost

estimate, I'm sorry, that you saw, was that for the delivery of two to five million tons of coal a year or one to two million tons of coal a year?

A They had estimates for both ranges of coal delivery.

Q And did the cost estimate that you saw include the same unloading facility for both of those coal tonnages?

A The two proposed cost estimates were differently constructed and differently based.

Q And was the unloading pit the same in both of those estimates?

A No.

Q And what were the differences in the unloading pit?

A The one to two-something million delivery used the existing limestone pit upgraded to handle coal deliveries by rail. The second larger system, between two and 5.5 million, was based on a newly configured rapid discharge pit.

Q And do you know the dimensions of the current limestone unloading pit that formed the basis for the first of the CSXT proposals?

A I have a rough estimate of that.

Q And what are those dimensions?

A The hoppers are about 12 feet wide.

Q No, I am talking about the size of the pit?

A The pit has two basic compartments. Which compartment are you looking at?

Q I am talking about the current limestone unloading pit.

A It has two compartments, and I can talk to each part of it.

Q Aren't the current dimensions of the pit 27 feet wide by 40 feet deep by 58 feet long?

A That would be very close to the configuration of both compartments.

Q And how many hoppers are in the limestone unloading pit?

A Two.

Q And they take up the entire 27 by 40 by 58?

A No. No.

Q Now, what modifications were going to be made to that limestone unloading pit to make it function as a coal unloading pit?

A The basic change would be to upgrade the size of the conveyor coming from the bottom up to the transfer house. That tunnel is nine feet wide and has a 36 or 42-inch belt. That conveyor would have to be removed and upgraded to something like a 54-inch conveyor belt.

Q Did you determine that that particular configuration designed by CSXT, Mr. White and Mr. Schumann, would work?

A Yes.

Q And would it work for both, for the one to two

million tons?

A It would work for the one to two million tons, yes.

Q And with two hoppers as a rapid discharge, is that correct?

A No, it is not a rapid discharge. Stop and dump, a conventional dump.

Q Are you talk about a rotary dump?

A No. No.

Q Each car would have to stop --

A Go ahead.

Q Each car would have to stop and be unloaded before the next car would be accepted?

A Yes.

Q Now, you designed a rapid discharge, did you not?

A I put a surrogate design for a rapid discharge pit similar to what was proposed by CSX.

Q And how many hoppers would be required for the rapid discharge?

A I proposed four.

Q Wouldn't you agree with me that your cost estimate only includes two hoppers?

A I think it is four.

Q Would you please turn to --

A Go to JBS-6, Page 5, where it says hoppers, and I've got four each.

Q But you only have them priced out for two of them, don't you?

A It looks like I started off with two, wrote over it and got four, and I used four.

Q But you only priced for two, didn't you?

A No, that price is for four.

Q I thought the price is at $48,000 apiece?

MR. WRIGHT: Mr. Chairman, can I ask where we are? I have gotten lost.

MR. FONS: We are on Page 3 of his Exhibit JBS-6.

MR. WRIGHT: Thank you.

THE WITNESS: That would be correct.

BY MR. FONS:

Q Did you perform or rely on any engineering studies to establish the required dimensions for this rapid discharge coal unloading pit?

A State that again.

Q Did you perform or rely upon any engineering studies to establish the required dimensions for this rapid discharge coal unloading pit?

A No, I used wall thicknesses and made the dimension estimates myself.

Q And your estimates were how wide would the coal discharge pit be?

A It only needs to be about the width of the rail car,

which is 12 feet.

Q And do you require stairwell in a discharge pit?

A The existing limestone pit has one of the chambers that has the operation and maintenance access and stairways, and I would really abut or extend the rapid discharge pit adjacent to this pit and piggyback and use that infrastructure for stairway access, lighting, bag house and the other auxiliaries.

Q Well, isn't the current rapid -- or the limestone discharge pit 40 feet deep?

A Yes.

Q And how deep were you going to go with your discharge pit?

A 25.

Q Did you look at any other discharge pits engineered by anyone else to make a determination as to your pit size?

A Yes. I looked at the profile at Morgantown, and I am also familiar with the Mountaineer AEP plant that only has a 15-foot deep pit. It has ten hoppers ers and it runs conveyors out perpendicular to the rail and gets it out. So the trade-off between depth and the number of hoppers is a -- if you want to put one big hopper under two rail cars, you go deep. If you put in multiple hoppers, you can have a much shallower pit, and it's a trade-off of conveyors to get it up to the side and the number of pits versus depth.

Q Would you accept, subject to check, Mr. Stamberg, that the Morgantown plant that you relied upon, the dimensions are 35 feet wide, 120 feet long and 55 feet deep?

A I relied on the external dimensions, the length, which is -- I measured at about 120 feet.

Q You actually went on site?

A I talked to the people after I did the study.

Q After you did the study, is that because of your deposition?

A Yes.

Q Okay. But would you accept, subject to check, that the Morgantown plant actually is 35 feet wide, 120 feet long and 55 feet deep?

A It is a rotary dumper.

Q Well, nonetheless, whatever it is --

A I would accept that, yes.

Q Okay. With just the two-hopper system included in your estimate, won't the larger, deeper hoppers required for rapid discharge require a 40-foot deep unloading pit?

A The four-hopper system fits well within a 25-foot depth.

Q But you only costed out a two-hopper system, didn't you?

A It looks like that arithmetic should be -- two more hoppers should be added to the numbers.

Q Did you consult any power plant construction guidelines or power plant engineering studies to ascertain whether your width and depth assumptions were correct?

A No. I checked with other power plants to see whether their pits were of this type.

Q When did you make that check?

A Afterwards.

Q After when?

A After I prepared this testimony.

Q Okay. Would either the CSXT or your proposal require a new conveyor system to move the coal from the discharge pit to the coal piles?

A Yes, it would require a conveyor to lift it out to a transfer point. Then it would have to be moved by short conveyor south to get the alignment over the old second track, and then made a junction about where the old loading equipment -- unloading dock was. And then you would make a dogleg up to the dock transfer house where the coal unloaded at the barges enters into. And from there on it would be the same.

Q How many conveyor systems?

A How many what?

Q Conveyor systems. How many conveyors systems?

MR. WRIGHT: Mr. Chairman, how many conveyor systems what?

BY MR. FONS

Q How many conveyor systems did you determine were needed to move the coal from the unloading pit to the coal piles?

A One lifting it out of the pit, a second short one to get it in alignment, one long one, and the short one that lifts it up to the dock unloading transfer house.

COMMISSIONER JABER: How many would that be?

THE WITNESS: Four.

COMMISSIONER JABER: Thank you.

BY MR. FONS:

Q Am I correct in understanding your summary to say that you looked at the conveyor systems that are currently in existence at Tampa Electric and simply tried to replicate those systems for your coal unloading system?

A I went to the same supplier and that was --

Q Are you familiar --

A Go ahead.

Q And that was Continental Conveyor?

A Yes. Go ahead.

Q Did you provide Continental with written specification that included a design basis, code standards, or terms and conditions?

A No.

Q Do you know what the design basis, that is the tons

per hour capacity, is of the current conveyor system that you sought to replicate?

A I didn't seek to replicate all the numerous conveyors. There is 1,100 feet of conveyors at the Big Bend site, pretty close to that. They are of different sizes, different types, different angles.

Q Now, the one that you selected, the Continental conveyor, what were the dimensions in hauling capacity of the conveyor that you looked at?

A It's a 54-inch. They came up with a --

Q Who is "they?"

A Continental Conveyor recommended a 54-inch conveyor for 2,500-ton per hour capacity for the long and short conveyor, and I supplied them with the tons per hour and the lengths of the conveyors.

Q Did you provide them with the serial numbers of the conveyor that you saw out there?

A No.

Q Did you measure the conveyor that you saw out there?

A The existing conveyors' length aren't part of it. The length was taken off the plot plan, the same as CSX did.

Q How about the size of the conveyor belt, the 54 inches. Did you find any 54-inch conveyor belts at Tampa Electric Big Bend?

A They have several 54-inch conveyors.

Q And was that the kind of conveyor that you were trying to use for the rapid discharge pit?

A They have covered and uncovered conveyors.

Q They also have a --

A And we asked for a covered conveyor.

Q All right. And it was Continental that told you that you needed 2,500 tons per hour?

A No. We told them that the performance that we were after was a conveyor of this length, this height, to move 2,500 tons per hour.

Q Are you aware of any conveyor system at the Tampa Big Bend plant with 54-inch width conveyor belts that is rated at 2,500 tons per hour?

A Yes. The conveyor WL-50 is rated at 4,000 tons per hour.

Q And what is the width of the belt on that?

A Fifty-four inches.

Q Would you accept, subject to check, that it is 72 inches?

A If you give me a minute, I can find the conveyor description copy, and we can submit it into the record that it was in the operation training manual.

Page 238 of CSX's fifth request for POD, Docket Number 031033-EI, conveyor WL-50, 54-inch wide, speed is up to 950 feet per minute, and it has a capacity of 4,000 tons per

hour when operated with the electric motor. And when they go to an auxilliary diesel power, it is 3,000 tons her hour.

Q What is the length of that conveyor?

A 16 feet -- 16 and a half feet.

Q That is the length of it?

A Yes.

Q So it is only covering 16 feet. That is carrying coal for a distance of 16 feet, correct?

A Correct.

Q But you're designing a conveyor system that had upwards of 1,300 feet, isn't that correct?

MR. FONS: Mr. -- please.

MR. WRIGHT: I'm sorry.

THE WITNESS: That doesn't seem to be correct.

BY MR. FONS:

Q Well, and it is not correct because your attorney is shaking his head no, isn't that correct?

A No.

MR. WRIGHT: I apologize.

CHAIRMAN BAEZ: Hold on. Hold on. Mr. Wright.

MR. WRIGHT: Yes.

CHAIRMAN BAEZ: Go ahead. Ask your next question.

THE WITNESS: The conveyor lengths are about 3,200 and 500-and-something for the long lift, the two long conveyors.

BY MR. FONS:

Q But that is longer than 1,300 feet; 3,300 feet, isn't it.

A Yes.

Q So you are talking about a conveyor system that is 3,300 feet long?

A Correct.

Q All right. Does your cost estimate include the cost of additional electric hardware to run the conveyor system?

A The FMC Technology bids includes the switch gear starters and electric design for their system, and all you have to do is bring wire. And that is for a 480-volt motor. When you get down to brass tacks, Tampa Electric on the south side of their plant has a 4,100-volt electrical system that feeds their conveyors, and that would be a more efficient design. But that is included in FMC's design.

Q Doesn't the FMC budgetary quotation state that the customer to provide all electrical unless noted otherwise in the following bid?

A They supply the electric power wire, and then they take the power and do the necessary switch gear and starter motors for the motor.

Q And isn't the customer to provide the 460/60 line voltage to the system?

A Yes.

Q Does the CSXT cost estimate include the cost of the additional instrumentation and control logic necessary to operate the new unloading and conveyor system?

A Are you talking about the CSX or my --

Q Well, let's talk about yours.

A Okay.

Q **Let's just talk about yours.**

A Okay.

Q Does your cost estimate include the cost of the additional instrumentation and control logic necessary to operate --

A It has self-control logic programming, but it is not tied back to a central or remote control room.

Q Can you please identify where in the FMC quote I can find the instrumentation and control logic?

A It is -- they sent me an update and clarification, and it is on --

Q Are we -- are we privy to that update and clarification?

A Yes.

Q Where is it located in your testimony or your exhibit?

A It is not located in the exhibit. It is a clarification on that point.

Q Well, just a moment. I have never seen that

clarification. You have never supplied that to us, have you?

A No.

Q All right. And didn't you upgrade this clarification after you had filed your testimony?

A Yes.

Q And after Ms. Guletsky had filed her testimony, isn't that correct?

A Yes.

Q And did you seek this clarification based upon the concerns raised by Ms. Guletsky in her testimony?

A Yes.

MR. FONS: Mr. Chairman, this is the first time we have seen this. We would like the opportunity to review it. I will continue with my questions, but if --

CHAIRMAN BAEZ: How long do you think you are going to need to review it? Because I think -- I want to give the court reporter a break, and if a ten-minute break would be --

MR. FONS: We will just keep going.

CHAIRMAN BAEZ: All right. You are not making friends with Jane.

MR. FONS: Oh, I'm sorry, Joy.

CHAIRMAN BAEZ: That's okay.

MR. FONS: I've got Joy wrong, too. It's Jane. I really struck out.

COMMISSIONER JABER: Mr. Chairman, how long did

Mr. Fons have?

CHAIRMAN BAEZ: Mr. Fons, I don't know. We didn't get to discuss that. I don't know that -

MR. FONS: I've probably got about another 15 minutes.

CHAIRMAN BAEZ: Very well. Go ahead.

COMMISSIONER JABER: Well --

CHAIRMAN BAEZ: No, you know -- the Commissioner, defer to the Commissioner. Do you want a ten-minute break?

COMMISSIONER JABER: I'm ready for a ten-minute break

CHAIRMAN BAEZ: Okay. Let's take a ten-minute break. It will give you a chance to review your document, and then Jane will love us all.

(Brief recess.)

CHAIRMAN BAEZ: We will go back on the record

Mr. Fons, have you had a chance to look at the document?

MR. FONS: Yes, we have, Mr. Chairman. I'm not sure whether this is a confidential document or not. There are numbers in the document that are blacked out on pages -- and this is unnumbered, so it is called EVA Bid Clarifications 5-18. There are pricing, the item description, engineering structural/mechanical. The numbers are blacked out. I don't know what those number are, so we have no way of determining

what changes have been made. Although, I would point out that the document, the handwritten document from Randy Baird at MHS Systems Business Manager, FMC Technologies, does indicate that there is an additional price as a result of these additional items.

CHAIRMAN BAEZ: Mr. Fons, let's work on getting this clarified. There is a question put before Mr. Wright, is this a confidential document? I am assuming that this is an addendum to what is -- what is it? JBS-4.

MR. WRIGHT: Well, it's --

CHAIRMAN BAEZ: Go ahead. Go ahead.

MR. WRIGHT: I'm sorry, Mr. Chairman. It is not -- well, it is an update to JBS-4 that was, as Mr. Stamberg described, requested following further activities in this case. I intend to inquire of him on redirect about this document. It is not confidential. I have sufficient copies to pass out and I would propose to go ahead and do so at this time.

CHAIRMAN BAEZ: If you would, please, for our benefit.

Mr. Fons, does that answer your question?

MR. FONS: What are we going -- no, not entirely, because there are numbers that are blacked out.

MR. WRIGHT: Either you or I or anyone else can inquire about those. I think I know, but I don't think it is appropriate for me to say right now.

MR. FONS: When will it be appropriate for you to --

CHAIRMAN BAEZ: Mr. Fons, let's let Mr. Wright get back to the -- get back to the microphone, because we're -- I'll trip him as he goes by.

MR. FONS: No, because if you do that, he can't answer the questions, you see.

CHAIRMAN BAEZ: Mr. Wright, there do seem -- in this new handout, there do seem to be numbers that are blacked out. And you had given an explanation or some response to that. First of all, that I don't know if the court reporter caught, but more importantly, I'm not sure I understood. So if you could please clarify.

MR. WRIGHT: Actually, I think I did not give an explanation, because I -- while I said I believe that I know, I don't think it is probably the most appropriate thing for me to be the one to try to do that. I think Mr. Stamberg having been the one directly --

CHAIRMAN BAEZ: Well, let me ask you a question.

MR. WRIGHT: -- received the communication from Mr. Baird can do so, and if Mr. Fons doesn't ask him about it, I will.

CHAIRMAN BAEZ: Right. So I guess to clarify, Mr. Fons, I think Mr. Stamberg is going to be able to provide you with whatever information you require to complete the notion of this document, I think.

MR. FONS: May I inquire of you and Mr. Wright whether or not there is an unredacted version of this document in the building, in the hearing room?

MR. WRIGHT: Mr. Chairman, it is my belief that -- Mr. Stamberg can confirm this. But it is my belief that this is how this document was sent to Mr. Stamberg by Mr. Baird.

CHAIRMAN BAEZ: And Mr. Stamberg is confirming that, so I guess the answer to that sounds like a no to me, Mr. Fons.

MR. WRIGHT: The answer is no to that question.

MR. FONS: That is fine. Let's mark it as an exhibit, please.

CHAIRMAN BAEZ: Okay. **And I am showing** -- if you will bear with me for a moment. **I am showing the nex**t exhibit number is 106, and we will call it update to FMC bid.

(Exhibit 106 marked for identification.)

MR. FONS: May I proceed?

CHAIRMAN BAEZ: Go ahead, Mr. Fons.

BY MR. FONS:

Q Mr. Stamberg, this document, Exhibit 106, which you received from Randy Baird and is dated 5-18-04, which you describe and he describes as a clarification of a budgetary quote?

A It's clarifications, and the other purpose of this was to get a price estimate for the different things that Sargent and Lundy, Paula Guletsky, had criticized in her

testimony as to speed, spacing of the idlers, type of idlers and type of motors. And even though they are not needed, and the original quote meets the Conveyor Equipment Manufacturers Association criteria, we asked them to update that to respond to all of her -- what she described as shortcomings. And that adds 15 percent to the price of the original quote.

Q And that is found on handwritten Page 4, is that correct?

A Those are the six items and the notes, and that resulted in a 15 percent increase.

Q And there were eight items in this Exhibit 106, isn't that correct?

A Is there what?

Q There are eight items in this Exhibit 106?

A Yes.

Q And the quote only addresses one, two, three, four and five -- I'm sorry, one, two, three, four, five and six, is that correct?

A Yes.

Q And the original price for supply of Items 1, 2 and 3, is that correct? Let's go to the bottom of Page 2 of Exhibit 106.

A Yes.

Q It says, based upon our conversations of 5/16/04 and 5/17/04 --

A Yes.

Q -- less than a month ago, I am providing the attached bid clarifications and a price adder for the requested changes.

A That is correct.

Q And the budgetary quote now includes foundation -- number one, foundation engineering design and foundation construction. Would you agree with me that the original quote from FMC did not include these items?

A They did not include the foundation design.

Q The foundation engineering design or foundation construction, isn't that correct? Isn't that what it says here, foundation engineering design and foundation construction?

A Right.

Q And number two is added to this, all electrical engineering and scope supply of attached bid clarifications dated 5/18/04. Would you agree with me that the FMC quote did not include these items previously?

A That would be a clarification.

Q But my question is did it include these items previously?

A Yes.

Q It did? I thought it says at the bottom of Page 2 the budgetary quote now includes, and then it goes to 2, all engineering and scope supply of attached bid clarifications.

A Yes. These are two things, clarifications and additions.

Q And Number 3 is, designed to use CEMA D FMCT, idlers, 6-inch rolls?

A Yes.

Q And that says four on ten center design. What does that mean?

A That the original quote was to CEMA criteria, which included C idlers at 5-foot spacing, which is consistent with CEMA criteria and design. Ms. Guletsky thought that they should go to four-foot spacing and D idlers, which are not necessary, according to CEMA criteria. But if those are added that would make the price increase.

Q And all structural steel to be galvanized per scope of attached bid clarifications?

A That is a clarification.

Q And is there additional cost to it being galvanized?

A No.

Q What about Number 5, NEMA 4 electrical design. What does that mean?

A National Electric Manufacturers Association, Series 4, which is I believe a Class 2 type F motor.

Q And prior to that the FMC quote did not meet the NEMA 4 electrical design, is that correct?

A I believe so.

Q And Number 6 says includes head discharge chute boxes as required by appropriate design. What is the appropriate design reference there?

A They are throwing in the chutes and boxes which would be part of the transfer station now.

Q But they weren't previously?

A No.

Q And did that add a cost?

A Yes.

Q And then there is a note, we continue to quote a 54-inch -- is that CVI?

A Yes.

Q Conveyor per EVA specification. What written specifications did you provide to FMC?

A We provided performance needs, which was the 2,500 tons per hour, the length, and compliance with CEMA criteria and it be hooded.

Q Now, all of these result in an increase which is set forth in Page 4. There is another line under that, under the revised price to include Items 1 to 6 of this 5/18/04 addendum. There is a line that says range constrict due to recent specification clarification. And that increases from 6,631,133 to 7,747,366 (sic), is that correct?

A Yes.

Q So that the increase is to 7,747,336, is that

correct?

A Well, you have got to look at the range at 67 million to 7 or the median, you know, the center increase. You can't compare the top range with the previous average.

Q And this is still a budgetary pricing quote, is it not?

A Yes.

Q And isn't that set forth on Page 2 under Subparagraph 3, which says pricing provided as budgetary only. Exact pricing will require further scope development, specification review, and site analysis. Final pricing to occur prior to order acceptance, is that correct?

A You would -- before you purchased, you would review all of this and make any adjustments, particularly if you had to -- you would want to get the engineers involved at the Big Bend Power Station.

Q And who would do the specification review? Would that be FMC before they gave you a firm quote?

A Yes.

Q And that has not been done, has it?

A No.

MR. FONS: I have no further questions.

CHAIRMAN BAEZ: Thank you, Mr. Fons.

Mr. Wright.

MR. WRIGHT: Thank you, Mr. Chairman. Mr. Chairman,

I will be as quick as I can. There are some pages I am just going to have to find. I apologize for any delay.

REDIRECT EXAMINATION

BY MR. WRIGHT:

Q Mr. Stamberg, Mr. Fons asked you some questions regarding the number of hoppers shown in your hand calculations on Page 3 of 12 of your Exhibit JBS-6. Do you recall those questions?

A Yes.

Q And I believe he pointed out that your design calls for a four-hopper design, but that your cost estimate there includes only two hoppers, is that accurate so far?

A Correct.

Q What correction would you need to make to your cost number there to account for the four-hopper design that you contemplated?

A You would take the 96,000 and double it, and for the gates or the grates you would put in another 96,000, so you would add about 200,000.

Q And that would cause the number at the bottom of the page there to increase, by my arithmetic -- well, I will ask you to do it. I shouldn't lead. What would the new number be that is comparable to the 802,104, if you were to do that?

A It would increase to 1,700,090 by adding another 200,000

Q Will you repeat that, please?

A That would increase the number from 1,590,000 to 1,790,000.

Q Thank you. Where is the 1,590,000 number, Mr. Stamberg?

A That would be on Page 5.

Q Of what?

A Of JBS-6, Page 2 of 12.

Q Thank you. Are there any other flow-through changes that would result from increasing the number of hoppers and number of grates as you just described?

A No.

Q Thank you. If you know, would that still keep the estimate within the 120 percent of what CSXT was willing to fund?

A With that adjustment, it would still be under that.

Q Thank you. You were asked some questions by Mr. Fons regarding rapid discharge unloading pits for coal and any others that you might have looked at. My notes indicate that in response to that you mentioned Morgantown and AEP Mountaineer.

My question for you following on that, is are you aware of any other plants that have similar discharge pits to that contemplated by your proposed design?

A Yes. AEP has pits similar to this at the Amos

(phonetic) Power Plant in West Virginia.

Q Can you tell the Commission how similar it is?

A It is two stories, about two cars wide and has multiple pits.

Q And two stories equates to what in terms of overall depth?

A That is somewhere around the 20 to 25 feet range.

Q Any others?

A The Gannon pit, which is a stationery pit, is a shallow pit, also.

Q Do you mean --

A It is not a rapid discharge, but it is a single car unloading pit.

Q And that is the pit at Tampa Electric's Gannon Station?

A Yes.

Q Okay. Approximately how deep is that pit?

A It is about 20 to 25 feet.

Q Thank you. Mr. Fons asked you a question regarding the design specifications that you gave to Continental Conveyor. I just was not sure whether you were able to give a complete answer, and I wondered if you had anything to add to the answer that you gave?

A No. Basically, they were familiar with the type of conveyors that are at the Big Bend site, and I said give me an

update with this performance spec. So they -- the micro details they took and didn't spell out.

Q Did you -- did you ask -- did you specify a belt width for Continental or did Continental specify the belt width as a recommendation to you?

A Both Continental and FMC Technologies selected the 54-inch conveyor for the 2,500 tons per hour system.

Q Thank you. In your testimony in response to Mr. Fons, you mentioned an entity known as CEMA. What is CEMA?

A It is the Conveyor Equipment Manufacturers Association that have criteria on speed, idler spacing, belt weight and a number of other conveyor criteria.

Q Are these CEMA criteria generally accepted as the industry standard for conveyor design?

A Yes, that is correct.

Q What are the factors that determine the choice of -- I think you said idlers, belt width, and so on?

A The first thing is the weight of the material on the belt, the weight of the belt times the spacing, which gives you the live load of the belt and material. So, if you have 4-inch spacing, you have less weight on the idlers. If you have five inch space, you have more weight.

Q Excuse me. Just to make a clarification, in your last answer you referred to four-inch and five-inch spacing, did you mean something else?

A Feet.

Q Thank you. Please continue.

A Yes. Then you have an adjusted load factor where you adjust it for aggregate size. And anything up to about 12 inches or 50-pound per cubic feet you make no adjustment. Then you make an adjustment for how long you use the belt each day, .8 for six hours or less, which would be the case for Big Bend's conveyors on the unloading system. And if you ran it 24 hours a day or, you know, constantly, it would be a 1.2 adjustment factor.

Then there is an adjustment factor for the maintenance, where it is clean conditions and good maintenance you have one factor. If you go all way to the opposite, you adjust that load factor by 15 percent for a poorly maintained, dirty conveyor system. At Big Bend the conveyors look like they are well maintained and are clean, and may be moderate as far as dirty at the worst.

Q Thank you. Without asking you to walk through it, did you make the calculation consistent with the CEMA guidelines as to what the appropriate design specifications in terms of belt width, idler class, and idler spacing would be for the conveyors in your proposal?

A Yes.

Q And what did those calculations show?

A They showed that C idlers were needed and five-foot

spacing is also adequate.

Q And what would the belt width be associated with those characteristics, what belt width?

A 54-inch.

Q Thank you. In response to some questions by Mr. Fons, you made reference to a conveyor at Big Bend Station known as WL-50 that is rated at 4,000 tons per hour?

A Yes.

Q You identified a document or a response by Tampa Electric to CSXT's production request. I didn't catch all of that information. Do you have that document?

A Yes.

Q May I look at it, please?

A Yes.

Q If you know, and with the understanding that it was furnished in response to a CSXT production request, what is the original source of that document, Mr. Stamberg?

A It is the Big Bend coal yard training and operating manual. That may not be the exact name, but that is the coal yard operating manual.

Q Thank you. At what speed -- you measure speed in feet per minute, right? You measure speed and feet per minute for conveyors, is that right?

A Yes.

Q At what speed does that conveyor operate?

A Up to 950 feet per minute.

Q Thank you.

MR. WRIGHT: Mr. Chairman, this only came out in cross examination, but I would like to ask that this be marked for identification and admitted, either today or as a late-filed. I don't think it is realistically subject to any objections. It's right out of Tampa Electric's own manual.

CHAIRMAN BAEZ: It was a request?

MR. WRIGHT: It is a response. It's one page from a production request. It is a page describing -- is it one or more conveyors, Mr. Stamberg? Is there one or more conveyors covered on that document? Just one.

THE WITNESS: This also identifies Conveyor Number 2.

MR. WRIGHT: Okay. It is a conveyor specification sheet from Tampa Electric's coal yard operations manual.

CHAIRMAN BAEZ: Mr. Fons, if there is no objection -- are you still trying to figure out --

MR. FONS: We have no objection. We're not sure that that particular conveyor is still there. That manual has not been updated in years.

CHAIRMAN BAEZ: Very well. Without objection, show that marked as Exhibit 106.

MR. WRIGHT: I think it would be 107, Mr. Chairman.

CHAIRMAN BAEZ: 107. I'm sorry. I misspoke.

(Exhibit 107 marked for identification.)

MR. WRIGHT: Thank you.

BY MR. WRIGHT:

Q Mr. Stamberg, you and Mr. Fons had some discussion about what has been marked as Exhibit 106, which is the update to the FMC bid?

A Yes.

Q My first question for you is what did you understand the initial FMC bid or proposal to include versus what was covered in Exhibit 106 in the update?

A The original quote provided was $1,070 per linear foot or thereabouts. This increased it by 15 percent, mainly by including foundations, clarifying the galvanizing and the electrical, and also taking in spacing the idlers at four feet, even though it is not required, and using D instead of C idlers.

Q You just mentioned foundations. In your initial estimate for your proposal, had you included a proposal for foundations, a value for foundation cost?

A No, I added the foundation costs because they did not include them.

Q Well, I think you answered my question. My question was separate from the initial FMC bid, had you included a foundation cost in your initial proposal?

A Yes.

Q Okay. And so does the new proposal from FMC, does

that eliminate the need for the foundation estimate that was in your previous proposal?

A Right. You would subtract off about 130,000.

Q Thank you. I want to make sure that the record reflects a clear understanding of what the new proposal is. As I read it, the initial proposal is 5,851,000 with a minus 15 percent to plus 20 percent band, is that accurate?

A Right, yes.

Q Okay. And the new center point single price number is what?

A 6.7 million.

Q Thank you. Please continue. Oh, I thought you were going to say something else, and I did not want to interrupt you.

A The reason we pursued this is in S&L's report they said if the various idler spacing and these various adjustments were made, that the original FMC quote would be more like theirs, which is many fold ours. When you make that adjustment, it is only 15 percent and not X fold of the bid.

Q And in that context, the 15 percent increase, is that the increase from the 5,851,000 to the 6,736,000?

A Yes.

Q Now, I note that the two written -- two lines of words and the numbers immediately below the $6,736,000 number indicates that it is a range constrict. What does that mean?

A That is the accuracy of the budgetary quote, steel prices can change, labor -- you know, indices can change with time.

Q So if we wanted to take this back into your total project cost, as you had estimated it previously, what number would you use and what, if any, adjustment would you make for the foundation costs?

A I would subtract off about $130,000.

Q In?

A The new quote.

Q I'm sorry. Subtract $130,000 from what?

A The 6.7 million.

Q Okay. Keeping the FMC bid update ready to hand, I would like to ask you to look at Page 21 of your testimony. At that page there appears a table?

A Yes.

Q And do I have it right that the last dollar number in the bottom right-hand corner there is your estimate for the system, based on your previous information, 8,349,000?

A Correct.

Q And how many, can you tell us how much that would increase by based on the updated information that you received from FMC?

A About a half a million dollar increase.

Q Thank you. With regard to the nature of this quote,

there was some discussion as to whether it was a budgetary quote or a firm -- I think it was a budgetary quote with a firm price to be nailed down, if you don't mind the term, later?

A Yes.

Q What would your expectation be regarding what the firm quote would be relative to the range shown on Page 4 of Exhibit 106?

MR. FONS: Mr. Chairman, I will object on the basis it calls for the witness to speculate. There has been no foundation. He is being asked what he thinks FMC's quote will be. And FMC would be the only one that would be able to say that, not this witness.

CHAIRMAN BAEZ: Do you want to retry the question, because I think you are reaching a little too far.

BY MR. WRIGHT:

Q Based on your understanding of such quotes, would you expect the final quote to be inside the range written down by Mr. Baird on Page 4 of the update?

A Yes.

Q From the information available to you, Mr. Stamberg, could you tell how long it took Sargent and Lundy to prepare its study?

MR. FONS: I will object to the form of this question. There was no cross examination on that point.

MR. WRIGHT: Mr. Chairman, Mr. Fons asked him a

number of questions about Sargent and Lundy's study and Sargent and Lundy's work. I m following up.

MR. FONS: I think it is already covered in his testimony. This is not redirect.

CHAIRMAN BAEZ: Mr. Fons, I am going to allow the question. It seems you did go on quite a bit about S&L.

So go ahead, Mr. Wright.

BY MR. WRIGHT:

Q The question pending, Mr. Stamberg, is from the information available to you, could you tell how long it took Sargent and Lundy to do its study?

A Say that again.

Q From the information available to you, could you tell how long it took Sargent and Lundy to do its study or draft and final studies that were included as exhibits to your testimony?

A It took them seven days to do the draft study that was done on September 4th, and the final was done on September 18th. The big changes were the O&M costs, which was largely information supplied from TECO. And then the doubling of the large conveyor, which is the most expensive equipment in this whole process. And the doubling of the cofferdam and the doubling of the dewatering.

MR. WRIGHT: Thank you. One minute.

BY MR. WRIGHT

Q Just following up one more brief moment on the

additional features included in the FMC bid update.

A Yes.

Q As I understand it, that includes the D idlers and going to six-inch rolls -- and what does four on ten center design mean? I'm sorry, what does four on ten center design mean?

A It is four foot on the top of the belt and ten foot on the bottom.

Q And the top of the belt is narrower for what -- has closer spacing for what reason?

A The four is not needed. Five with C idlers is adequate.

Q But as between the four and the ten, why is it four on top and ten on the bottom? Why is it four feet spacing on top and ten feet on the bottom?

A Ten feet is a normal spacing on a return bottom belt with no weight on it.

Q Thank you. And just to be clear, are these additions needed in your opinion?

A No, these are not needed.

MR. WRIGHT: Thank you. That is all I have. Thank you, Mr. Chairman.

MR. FONS: Mr. Chairman, I hate to do this, but it was my recollection when Exhibit 106 suddenly appeared that when I raised the objection to it based on the blacked out

numbers that Mr. Wright was going to handle that through this witness, and that is why I did not ask questions about it. But if he is not going to handle it, I would like the opportunity to ask this witness about the pages that have the blanked out numbers.

CHAIRMAN BAEZ: And limited to that.

MR. FONS: Absolutely limited to that.

CHAIRMAN BAEZ: Okay.

RECROSS EXAMINATION

BY MR. FONS:

Q Mr. Stamberg, Exhibit 106, the updated bid clarification from FMC, there are two parts to it, is that correct?

A Yes.

Q And the first part is what we talked about earlier and has a signature or a signature by Randy Baird, is that correct?

A Yes.

Q Now, there is another attachment to that, it would appear. It is called EVA bid clarifications?

A Yes.

Q And who prepared that?

A Randy Baird of FMC Technologies.

Q Now, on the first page of that you have got conveyor specifics. Who provided that information?

A This is on the 106?

Q Yes, sir, the last part of it --

A Yes.

Q -- that shows --

A That would be Randy Baird.

Q Now, there is another line that says pricing, or a block that says pricing, and it's got item descriptions, beginning with engineering structural/mechanical, and the budget prices are not shown. Do you know what those numbers are?

A No, those were crossed out before they were sent to us.

Q So FMC did not give you the budget price for this bid clarification, is that correct?

A They did not provide us with that breakdown.

Q And the next page, the page that has the schematic on it, was that prepared by FMC, as well?

A Yes.

Q And was that prepared pursuant to your directions and specifications?

A That was pursuant -- that was a clarification of our original request of them.

Q What does it show? What does that show, that schematic? Is that the unloader or is that another conveyor?

A This is a generic type of conveyor that would be

typical of what we asked for.

Q But that is not a specific conveyor with regard to your design?

A No, that is a schematic of the type out of a, you know --

Q On the Page 3, the one after the schematic, there is a -- under electrical there is cable and conduit to connect all blank. Do you know what was in that?

A No.

Q That was scratched out by FMC?

A Yes.

Q And on Page 4, under erection, there is a line that is blanked out or scratched out. Do you know who did that?

A Randy Baird, FMC Technologies.

Q And you don't know what is contained therein?

A No.

Q And on Page 6, it says -- Line 20, it says, our bid has included the unloading of trucks for component supplied and something blanked out. Again, that was something blanked out by FMC?

A FMC.

Q And on Line 22, there is something blanked out and FMCTI in inserted instead, is that correct?

A Yes.

Q And who did that?

A Randy Baird, FMC Technologies.

Q And you don't know what was blanked out and replaced by FMCT?

A No.

Q And on the final page, Page 7, there is a large blocked out letters. Again, that is by FMC?

A Yes.

Q And you don't know that what contains?

A No.

Q Do you know why this attachment was provided, the attachment to the original handwritten document?

A This is my guess, is he took a clarification for another conveyor, and then crossed out the terms that didn't apply.

Q So this whole EVA bid clarification that is dated 5/18/04 does not relate to your conveyor, but just a generic conveyor, is that correct, that may have been provided?

A What he did is he took a boilerplate or similar criteria on fabrication, erection, bid assumptions and crossed out those things that did not apply or were different.

MR. FONS: No further questions. Thank you, Mr. Chairman.

CHAIRMAN BAEZ: Mr. Wright, do you need --

MR. WRIGHT: One follow-up.

CHAIRMAN BAEZ: Okay. Go ahead.

FURTHER REDIRECT EXAMINATION

BY MR. WRIGHT:

Q Mr. Stamberg, I just want to be clear. What you didn't get in that back part was a detailed budget price. Did you get a budget price in the first part of the package?

A Yes.

MR. WRIGHT: Thank you.

CHAIRMAN BAEZ: Thank you, Mr. Stamberg.

Exhibits.

MR. WRIGHT: 42 through 51, 106 and 107.

CHAIRMAN BAEZ: Without objection, show 43 to 51, 106 and 107 upon receipt admitted into the record. No, actually, Mr. Fons, 106 was yours, but I am assuming --

MR. WRIGHT: I handed it out.

CHAIRMAN BAEZ: Did you hand it out?

MR. WRIGHT: Yes, sir.

CHAIRMAN BAEZ: Okay.

MR. FONS: I asked that it be marked, but we have no objection.

CHAIRMAN BAEZ: Then they are admitted all the same.

(Exhibits 42 through 51, 106 and 107 admitted into evidence.)

CHAIRMAN BAEZ: Who is up? We're up to Mr. Murrell now, right?

Commissioners, do you need a short break? Now would

be a good breaking point. Okay.

MR. BEASLEY: Tampa Electric would call Ms. Paula Guletsky.

CHAIRMAN BAEZ: Oh, I'm sorry. You're correct. I am showing here that Witness Guletsky and Murrell had switched. My apologies. It is getting late.

PAULA GULETSKY

was called as a witness on behalf of Tampa Electric Company, and having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BEASLEY:

Q Would you please state your name and your business address?

A My name is Paula Guletsky. I work for Sargent and Lundy at 55 East Monroe in Chicago, Illinois.

Q And in what capacity do you work for Sargent and Lundy, Ms. Guletsky?

A I'm a senior project manager.

Q And you were in the room and sworn in the earlier part of this proceeding, were you not?

A Yes, I was.

Q Okay. Ms. Guletsky, did you prepare and cause to be filed in this proceeding a document entitled Prepared Rebuttal Testimony of Paula Guletsky, consisting of 29 pages?

A Yes, I did.

Q If I were to ask you the questions contained in that prepared testimony, would your answers be the same?

A Yes, sir.

MR. BEASLEY: I would ask that Ms. Guletsky's prepared rebuttal testimony be inserted into the record as though read.

CHAIRMAN BAEZ: Without objection, show Paula Guletsky's rebuttal testimony moved into the record as though read.

MR. BEASLEY: Thank you.

DOCKET NO. 031033-EI
FILED: 05/03/04

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED REBUTTAL TESTIMONY

OF

PAULA GULETSKY

ON BEHALF OF

TAMPA ELECTRIC COMPANY

Q. Please state your name and business address.

A. My name is Paula Guletsky and my business address is 55 East Monroe Street, Chicago Illinois.

Q. By whom are you employed and in what capacity?

A. I am employed by Sargent & Lundy, L.L.C. ("S&L") as a Senior Project Manager. S&L is an engineering design and consulting firm that has exclusively served the power industry in development, design, construction, and operations of power generation and distribution facilities for over 111 years.

Q. Please describe your educational background and business experience.

A. I received a Bachelor of Science degree in Chemical

Engineering from the University of Kentucky in 1981. I have served the power industry throughout my entire career. First, I worked for ABB Environmental Systems from 1981 to 1991. During my tenure with ABB I served as a conceptual design engineer, a detail design engineer, and an engineering manager for coal fired utility environmental projects. I joined S&L, my present employer, in 1991 as a project engineer. I have served as a project manager for 10 years. My experience spans from project development studies through conceptual design, detail design, construction, startup, operations, plant betterment and retrofit. I am a registered engineer in the state of Wisconsin.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide a detailed description of the independent cost estimates performed by S&L in August and September 2003 for retrofit at Tampa Electric's Big Bend and Polk plants to allow for rail delivery of coal in addition to the existing barge/truck delivery system. I also address both the numerous inaccuracies and certain outrageous allegations made by CSXT's witnesses, Dr. Robert Sansom and Mr. John Stamberg, regarding the S&L report and their approach to

a similar study.

Q. Have you prepared an exhibit in support of your testimony?

A. Yes. Exhibit No.___ (PMG - 1) consists of two documents. Document No. 1 is the engagement letter between Tampa Electric and S&L for the services to be performed. Document No. 2 is a project timeline showing specific tasks and time requirements necessary to retrofit Big Bend Station so that it may receive coal by rail.

Q. Please summarize your testimony.

A. S&L was hired to provide an independent technology screening analysis including cost estimates to retrofit the Big Bend and Polk Power stations to allow for rail delivery of coal. S&L prepared its report in accordance with S&L's strict engineering standards. Despite the outlandish allegations by CSXT's witnesses, S&L would never consider taking any short cuts or making reckless proposals that would damage its reputation as an industry leader for professional services. S&L's evaluation of CSXT's proposal was that while the concept appeared reasonable, the cost estimates used by CSXT were grossly

understated. Similarly, Mr. Stamberg's review and adjustments to CSXT's proposal omitted and failed to consider basic project requirements that resulted in insufficient cost estimates and flawed conclusions. After reviewing Dr. Sansom's assertions and Mr. Stamberg's proposals, S&L re-affirms its original estimates, and dismisses the conclusions reached by both Dr. Sansom and Mr. Stamberg because they lack the understanding of what the true costs are for the project.

S&L ENGAGEMENT AND WORK PERFORMED

Q. Why did Tampa Electric hire S&L in August 2003?

A. As described in the direct testimony of Tampa Electric witness Joann Wehle, S&L was commissioned to review the CSXT proposals and to provide an independent technology screening analysis including cost estimates to retrofit the Big Bend and Polk Power stations to allow for rail delivery of coal in addition to the existing barge/truck delivery plan. These cost estimates were to be used by Tampa Electric to evaluate the overall feasibility of the rail delivery approach to other options for coal transportation. S&L was asked to perform a technology screening analysis. Document No. 1 of my exhibit includes the engagement letter signed by Tampa Electric and S&L.

Q. What specific professional experience do you have that makes you qualified for this type of engagement?

A. With the exception of two gas turbine projects, my entire career has been focused on performing screening analysis and cost estimates, conceptual design and cost estimates, detailed design and project management of retrofit capital projects for coal fired utilities and independent power producers. All of these assignments have included material handling systems to some degree.

I have been a project manager at S&L for ten years. As such, I have demonstrated repeatedly to utility clients my expertise at assessing a retrofit need, assembling the appropriate staff within S&L to support the task, and executing the task on time and to a high standard of care.

Q. How did you staff this project?

A. For this project, I assembled the following key experts to perform the work:

Sam Madan - Material Handling Specialist and Process Owner who has 38 years experience in material handling industry.

George Bowater - Cost Estimating Specialist who has 32 years experience in the power industry.

Bock Yee - Project Manager and Licensed Engineer in the State of Florida who has 31 years experience in the power industry

The tasks performed were well within our usual and customary work.

PROJECT PLANNING PROCESS

Q. Please describe the process typically used in planning a major capital project such as the one proposed by CSXT for building rail delivery facilities.

A. Typically, there is a three-step process used in planning a major capital project. Technology screening is the first step. A technology screening, or feasibility study, serves to identify concepts worthy of additional consideration. A concept is proposed, a fatal flaw analysis is performed, a scope of work is identified and an order of magnitude cost estimate is prepared based upon the concept and scope of work. A typical technology screening will take anywhere from one week to three months depending on the number and complexity of the concepts analyzed. An estimate accuracy of 15 to 30

percent is provided.

If a concept is deemed feasible from a technology and cost standpoint, then the next step in planning is the conceptual, or preliminary design. During this phase of project development, engineering studies would be performed to further develop the scope of work and project schedule. Typical engineering studies would include site survey, soil boring, electrical load analysis, inspection of existing structures, tie-in's to existing facilities, and optimization studies. During the conceptual design phase, engineering would begin. Engineering tasks would include: modeling of the system with computer assisted design (CAD) software, preparing the general arrangement drawings, developing heat and mass balances, developing design criteria for the project, developing the engineering and construction schedule, and developing the piping and instrumentation diagrams. Vendor quotations would be solicited for major engineered equipment components during this phase of work. The cost estimate prepared in the conceptual design phase of a project is typically used for establishing capital budgets. An estimate accuracy of 10 to 20 percent is provided. The development of a conceptual design typically requires six months to a year

depending on the complexity of the system. Tasks indicative of the conceptual design stage are what are alluded to throughout Dr. Sansom and Mr. Stamberg's testimony.

The final stage of project development is detailed design and the development of a definitive cost estimate. The estimates prepared in conjunction with this stage of project development are based upon having 20 to 50 percent of detailed engineering complete and have an accuracy of 10 to 15 percent.

S&L WORK PLAN AND ESTIMATING STANDARDS

Q. Please describe the work plan you followed for this engagement.

A. S&L's approach used for this project consisted of four basic steps: (1) a scope of work was developed based upon the concept as revised to incorporate errors and omissions; (2) line items were developed in the cost estimate for every system, component or commodity needed for the project based upon the scope of work; (3) for each line item, a basis was developed to indicate the quality, size, capacity or materials; and (4) material and erection costs were prepared for each line item.

Q. Are the estimating techniques and methods used by S&L described above an appropriate standard of care for the type of work performed?

A. Yes. S&L is a highly respected worldwide leader in professional services for the electric power industry delivering engineering, construction management, and consulting services. The general engineering guidelines used in our cost estimating process are derived from the AACE International Estimating Committee standards. The cost estimating approach used for the Tampa Electric project is consistent with the methodology used for estimates prepared for hundreds of our utility clients, including Florida Power & Light, Progress Energy of Florida.

Q. Does S&L have any additional corporate standards of care that are followed?

A. Yes. S&L has corporate standards that must be followed, which help the company maintain its reputation as one of the global leaders in the field. The work performed by engineers is measured against these standards to ensure the services performed meet not only general engineering guidelines but the higher company standards.

S&L'S EVALUATION OF CSXT PROPOSAL

Q. Did you consider the retrofit concept proposed by CSXT to be workable from an engineering standpoint?

A. With the changes described in the S&L report to incorporate errors and omissions by CSXT, the concept proposed by CSXT may be workable. However, major environmental impacts associated with rail transportation - noise, traffic delays, and other inconveniences are not addressed. These social impacts cannot be readily quantified because of the variability of human response. Nevertheless these obstacles are not addressed but could impact the ability to get the concept accepted by the local community and agencies.

Q. What cost conclusions did you reach as a result of your screening analysis?

A. The cost estimate prepared and proposed by CSXT is extremely low in all cases. The independent cost estimates prepared by S&L indicate that the installed cost of the concept, including all necessary balance of plant adjustments and modifications, is four to five times that proposed by CSXT. S&L's as well as CSXT's capital cost estimates are summarized in the table below:

	S&L Capital	CSXT Capital
[redacted]		

Q. How could it be that your costs estimates and CSXT's costs estimates are so far apart?

A. I do not know how CSXT developed its cost estimates. However, S&L followed the same steps and approach, described above, that it uses for all of its utility screening projects and based on that approach arrived at the estimates it believes to be appropriate for the level of work performed.

Q. Dr. Sansom states that the S&L study was "designed to enable TECO to avoid considering CSXT's rail transportation bids rather than to provide an objective analysis of the feasibility of CSXT's proposals." Is this true?

A. Absolutely not. Tampa Electric hired S&L to perform an independent and objective assessment of the concept

proposed by CSXT. That is what we did.

Q. Did this engagement require a site visit to Big Bend and Polk Power stations?

A. After reviewing the concept and plan and after having discussions with Tampa Electric personnel, we felt that a site visit would not be required. We have extensive experience in the design of material handling systems specifically as they fit into a power plant system. We have extensive experience in retrofit of major systems into existing and operating facilities. We understood the concept presented to the level necessary to perform our work task. A visit to the site was neither required nor the best use of the time available to perform the work.

Q. Do you agree with Mr. Stamberg, the consultant hired by CSXT, that the infrastructure improvements and estimated costs of these modifications were reasonable?

A No, I do not. The cost breakdown provided with the CSXT proposal did not provide enough detail of the infrastructure assumptions. It did not appear from the costs provided that adequate infrastructure was included in the CSXT estimate.

Further, the descriptions and calculations provided by Mr. Stamberg in his testimony confirm that inadequate utility grade new equipment and infrastructure costs were used. Although not all of the cost differences are due to infrastructure, some examples of errors and omissions in CSXT's estimate include:

1. Lack of HVAC to ventilate the unloading pit and transfer houses.
2. No extension to the fire protection loop for the new system.
3. Lack of temporary coffer dam and dewatering for pit construction
4. Non-use of enclosed conveyors when transporting coal over an open water canal.
5. No inclusion of electrical hardware and commodities required for interface with the existing facility.
6. Inadequate steel and foundation allowance for design to meet the requirements of Florida's building code.

Q. Did S&L use engineering drawings and design specifications in performing their analysis?

A. Yes. S&L was provided with adequate plant reference drawings and data to perform the work. Additionally, S&L's efforts were supported by an on-site team of

engineers at Tampa Electric. Many telephone conferences and individual telephone calls were held to exchange information. Documents were interchanged electronically as evidenced by the correspondence included in the appendix to S&L's report.

Q. Did this engagement require you to discuss with CSXT the cost estimates in their bid?

A. No. S&L did not require discussions with CSXT because we understood the concept they proposed. Discussions with them regarding their cost estimates would not have been appropriate since we were hired to provide an independent assessment of costs based upon S&L's knowledge and experience.

Sansom's and Stamberg's Testimony

Q. Please identify any deficiencies you observed in Mr. Stamberg's estimates.

A. Examples of deficiencies to CSXT's and Mr. Stamberg's estimate include, but are not limited to, the following errors and omissions:

1. The conveyor prices included are not consistent with utility grade system component costs.

2. The rapid discharge pit size, method used to determine the cost estimate for the coffer dam needed, and pit erection costs are understated based on design requirements.

3. Mr. Stamberg states that HVAC included in S&L's report is unnecessary. The HVAC systems listed are ventilation systems for the underground pit and enclosed transfer house. Ventilation of these areas is a National Fire Protection Association (NFPA) guideline.

4. Upgrades to the plant electrical supply and distribution systems are not addressed. It is unlikely that the existing facility can accommodate the addition of over 60 motors without the purchase of new motor control centers, an additional electrical building and a transformer.

5. Other required balances of plant upgrades are not addressed. These include upgrades to the plant control system to monitor operations of the new equipment, extension of the fire protection loop, storm water and coal runoff grading upgrades, and relocation and interconnect with plant services.

6. Project indirect costs such as engineering, procurement, construction management, insurance, and permit fees are not identified.

Q. Were errors and omissions caused by Mr. Stamberg's limited access to Big Bend?

A. No. Mr. Stamberg's errors and omissions are not the result of his not visiting the Big Bend site. Any experienced system design firm would understand and account for these requirements based on the plan drawing provided by Tampa Electric and the known physical location of the plant.

Q. On page 11 of Mr. Stamberg's testimony he states that only four adjustments are required to CSXT's 2 to 5.5 million ton proposal to correct the deficiencies. Do you agree with that assessment?

A. No. While Mr. Stamberg's adjustments do increase the amount of infrastructure improvements needed from the original CSXT proposal, they do not address a complete design and cost estimate. Additionally, the adjustments that were proposed by Mr. Stamberg have significant flaws and omissions including:

1. The long conveyor installed cost was increased from the CSXT proposed $3.1 million to $4.2 million, which represents an increase of over 30 percent. However, the cost is still too low because the

equipment proposed is for light duty service and inappropriate for use in utility service.

2. The rapid discharge pit size is too small and shallow for the equipment. Resultantly, the coffer dam size and depth is also lacking.

3. The added dust suppression equipment costs are too low. The S&L estimate is based upon actual quotes for similar service on other projects currently in the design and procurement phase. The basis of Mr. Stamberg's estimate is unknown.

Q. Is S&L familiar with the conveyor manufacturers Mr. Stamberg references on pages 18 and 19 of his testimony?

A. FMC and Continental Conveyors are well known conveyor suppliers, however, S&L is not familiar with Cubic Storage Systems, Inc. as a system supplier for the utility market. S&L does not consider a quotation from this entity to be a credible data point.

Q. Mr. Stamberg provides budgetary quotes from two known conveyor manufactures, plus Cubic Storage Systems, Inc., as the primary basis for his estimates on the long conveyors. Do you consider his quotes to be accurate?

A. No. None of the budgetary prices developed by the conveyor manufacturers are firm prices based on materials and equipment suitable for the conditions at the site. For the budgetary price obtained from FMC by Mr. Stamberg, the following disclaimer appears in large letters:

> **Pricing provided as Budgetary only. Exact pricing will require further scope development, specification review and site analysis. Final pricing to occur prior to order acceptance.**

When asked for budget pricing without the benefit of full specifications, vendors can only respond by quoting unrealistically low prices without regard to actual site conditions and the design standards demanded by the application. The information provided by the vendors with their quotes is very limited. Therefore it is impossible to determine how many other site-specific design requirements are not included in their prices.

Q. Do you have an example of how the quote provided by FMC could change if more complete design specifications were provided?

A. Yes. Upon review of the quote provided by FMC to Mr. Stamberg, it appears that the equipment quote is for a light duty conveyor that does not meet the standard of care for a critical utility component. More information on design specifications would reveal:

1. The conveyor speed of 750 revolutions per minute (rpm) is higher than the industry recommended practice of 600 rpm. The increased speed of the conveyor contributes to higher dusting, coal spillage and undue wear on the component. To obtain the same throughput of the conveyor at a slower speed, a 60 inch conveyor is required rather than the 54 inch conveyor quoted.
2. Single coat enamel painting is insufficient due to corrosion. A minimum of two, but usually three, coat painting system should be specified for utility grade service. The Big Bend coal field is bordered on three sides by the salt waters of Tampa Bay which adds to the corrosive effects of the semi-tropical weather that is typical of Central Florida.
3. C series idlers are too light duty for this application. D-series idlers are recommended.
4. A design based on a dry environment is not appropriate. The conveyors are not housed in a dry environment. They are to be located outside, in

close proximity to Tampa Bay. All components of the system must be designed for outdoor service. Additionally, all electrical components must be designed for either waterproof/dustproof or explosion proof service.

5. The idler spacing of five feet increases the loading on the idlers and the sag between the idlers which contributes to dusting along the conveyer. Industry experts that set conveyor guidelines, Conveyor Equipment Manufacturer Association ("CEMA"), recommend a maximum of four feet idler spacing.

Besides the incorrect design assumptions, FMC's quote excludes key components including the foundation design and supply, the head discharge boxes, and electrical requirements.

After all of these errors and omissions are addressed, the quote received from FMC is more reflective of the quote provided by S&L. To further validate the adequacy of the database used in the cost estimate S&L provided, we benchmarked the bid coal conveyor costs provided to us by FMC for a new coal plant service. The bid received from FMC, that was prepared to an S&L specification for standard utility service, was higher than our database

estimate but within the error band. Specifically, the FMC quote was 10% higher than the S&L model predicted.

Q. Do you agree with the timeline Dr. Sansom created and states that Tampa Electric should have followed?

A. No. Dr. Sansom's timeline is incredibly unreasonable. S&L has determined that just over 24 months is required from the start of engineering studies and conceptual design through startup of the retrofit design. Further, S&L would recommend that six weeks of float be built into the schedule to account for unforeseen events. That would bring the timeline to a 26 month span. A shorter time span for execution would significantly increase project costs due to premiums paid for expedited delivery and labor overtime.

Also, it is unrealistic to expect any organization to authorize the start of conceptual engineering immediately upon receipt of a proposal as Dr. Sansom suggests. It is our experience that utility clients would require a minimum of two months to review the proposal and obtain the necessary approvals to move forward with engineering studies and conceptual design work that would cost $500,000 or more.

I have included as Document No. 2 of my exhibit a much more realistic timeline. My timeline, excluding the six weeks of contingency time, shows that the rail delivery retrofit at Big Bend Station starting with project authorization through startup and testing would take a minimum of 24 months, not 17 months as Dr. Sansom suggests.

S&L's Cost Estimate

Q. CSXT criticizes your study and asserts the study was prepared hastily and therefore, inaccurately. Do you agree?

A. Absolutely not. S&L was able to prepare an analysis and order of magnitude cost estimate within a three week period because of our extensive knowledge on the subject. S&L has a single focus; we perform consulting and design engineering services exclusively to the power industry, and as a result, routinely prepare estimates for these systems. As an example, S&L has recently performed over 100 new coal power plant studies, which include estimated costs for similar equipment and which form the capital cost basis for new plant decisions. We are currently in the detailed design and construction phase of 15 utility material handling systems. The project management,

material handling and cost estimating specialists used in the performance of the study prepared for Tampa Electric perform this type of analysis exclusively on power plant systems and have over 100 years of collective experience in fossil power plant design. We would not have accepted the assignment had we felt the time constraints were unreasonable.

Q. Dr. Sansom, in his summary on page 7 of his testimony, alleges S&L "failed to include many obvious steps that such analysis should include, such as evaluating permit conditions." Do you agree?

A. Not at all. This allegation reflects a lack of understanding of the process. It is not typical or customary to evaluate permitting in detail as part of a technology screening analysis. Permitting issues are performed in the second stage of capital project planning, which is the conceptual or preliminary design phase.

Q. CSXT criticized S&L for not obtaining vendor quotes. Was that a flaw in your analysis?

A. No it was not. Because S&L's sphere of work is electric

power plants and distribution, we have extensive, current cost databases with power plant components. It is not our practice to solicit budget estimates from suppliers at this phase of work. If, based on the screening phase, the project were to be considered further, we would typically obtain cost estimates from major suppliers, design criteria would be established, and a cost estimate with an accuracy of plus or minus ten percent would be prepared. Vendor quotes were not necessary for purposes of this engagement since our database is comprehensive and appropriate for this analysis.

Q. CSXT alleges the S&L study is not reliable because you did not consider the possible use of available facilities from Tampa Electric's Gannon site, freed up by the closure of the coal-fired plant. What is your response?

A. S&L did not evaluate the reuse of existing assets at Tampa Electric's Gannon site and rightfully so; the screening process focused on the Big Bend and Polk stations only. It is customary to perform optimization studies of the type suggested by CSXT in the conceptual design phase, not in the screening phase of project development. It is not usual and customary in a screening evaluation to assume that 20+ year old assets not

currently at the facility may be reused. It has been my experience that the reuse of existing assets is typically more costly than using new equipment. In this particular case it would be more pronounced since older assets would have to be disassembled, relocated, and brought up to code.

However, S&L did consider the reuse of existing facilities at Big Bend Station during the screening phase. Upon review of the limestone pit drawings, we determined that it was unlikely that the pit was long enough to accommodate quick discharge coal unloading space requirements. Further, it would be imprudent to assume that this 25 year-old structure could be modified to the extent necessary without evaluation of the structural integrity of the facility both in its current and modified configuration.

Q. Apparently Dr. Sansom found great humor in the fact that 22 of the 38 cost items identified in the S&L report were multiples of $70,000. Because of this, he suggests your report is "worthless." How do you respond?

A. It is usual and customary for a cost estimate used in the screening process to have line items rounded to the

nearest $10,000. For a $10 million project, rounding to a $10,000 level represents one-tenth or .1 percent of the total project cost. To observe this rounding and leap to the conclusion that the study is "worthless" is absurd.

Q. The foundation costs in the S&L report are much higher than what is reflected in CSXT's and Mr. Stamberg's proposal. What could account for the variance?

A. S&L's foundation costs are not a function of concrete quantities alone. Foundation costs include excavation, forming of the foundation, rebar detailing, fabrication and delivery, concrete and labor. The S&L estimate provides foundation costs for three transfer houses, the conveyor pedestals, the rapid discharge pit, and conveyor tunnel.

Q. Doesn't Mr. Stamberg account for these additional foundation costs?

A. Again, it appears that the estimates used by Mr. Stamberg either omit or grossly understate foundation costs. For example, even if one were to use the rapid discharge pit he recommends, he estimates excavation costs to be $2,000. That amount would not even cover the costs of

bringing in the necessary machinery to perform the excavation.

Q. What basis did S&L use to design and estimate the cost of the rapid discharge pit?

A. The basis of estimating the rapid discharge pit costs was consistent with S&L standards and industry practice. Detailed design drawings from an existing S&L project with a similar conveyor width were used to establish quantities. Labor rates used were from the S&L database which is updated yearly by region using the similar industry guidelines as described by Dr. Sansom and Mr. Stamberg in documents I reviewed. Additionally, S&L rates were further benchmarked and validated with actual cost data collected during the execution of the Gannon re-powering project. The cost of the foundations for the transfer houses and conveyor pedestals was benchmarked from data on existing designs of similar size and weight constraints.

Upon review of the hand calculations (undated and unsigned) provided by Mr. Stamberg, it appears that the pit width and depth used is substantially smaller than a final design would require. Also, there is no indication

that the associated underground conveyor tunnel is included in the concrete estimate.

Specifically I have identified the following errors made by Mr. Stamberg:

1. Mr. Stamberg's outside dimension for the pit is 12 feet compared to S&L's outside dimension of 29 feet. S&L's design estimates four foot wall thickness to overcome hydraulics. This allows 21 feet internal wall to wall space to provide room for the conveyor and maintenance access to both sides.
2. The pit depth was estimated at 25 feet compared to S&L's pit depth of 40 feet.

Finally, the S&L pit size estimate is based upon the actual as-built design of an existing structure of similar service and same size conveyor. It includes all required access to and from the pit for normal maintenance and emergency evacuation. Mr. Stamberg's design is 54 percent of the size the pit required for the equipment and maintenance access. It also excludes quantities required for the subsequent conveyor tunnel.

Q. Does this complete your testimony?

A. Yes, it does.

BY MR. BEASLEY:

Q Ms. Guletsky, did you also prepare and submit the exhibit appended to your testimony identified as Exhibit PMG-1 and identified for this hearing as Exhibit 61?

A I'm not sure I know what Exhibit 61 is. I'm sorry.

Q The one attached to your testimony?

A I'm sure I did. Is it the schedule?

Q Yes.

A Yes.

Q All right. Thank you. Ms. Guletsky, would you please summarize your rebuttal testimony?

A Yes, I will.

CHAIRMAN BAEZ: Ms. Guletsky, can you take care to speak into the mike, because we can't hear you over here.

THE WITNESS: I'm sorry. Do I have it on?

MR. BEASLEY: It should be green. The green button should be lit.

THE WITNESS: Is that better?

CHAIRMAN BAEZ: It's working now.

THE WITNESS: I was going to say good afternoon, but good evening, Commissioners. My name is Paula Guletsky. I'm from Sargent and Lundy. I am testifying on behalf of Tampa Electric Company.

Sargent and Lundy was hired by Tampa Electric to assess the feasibility of a rail coal delivery concept proposed

by CSXT for the Big Bend and Polk Power Stations, and to develop an independent cost estimate for implementation of that concept.

The report prepared by Sargent and Lundy was prepared in accordance with Sargent and Lundy's strict engineering standards and guidelines. The company's staff of professionals who worked on this task are power industry experts with over 120 years of collective experience in the planning and design of fossil power projects.

I was selected to manage this project because of my experience and understanding of the issues unique to fossil retrofit projects. I drew among my experience, the experience of the S&L staff selected to perform this task, the vast amount of experience maintained within S&L to complete this effort. The work product was completed under Sargent and Lundy's three-stage quality assurance process to ensure proper engineering methods were followed, as well as a strict standard of care that makes Sargent and Lundy an industry leader in this type of work.

My staff and I prepared the report. I reviewed the concept and the cost estimates contained within the report. It was then reviewed and approved and stamped by a professional engineer licensed in the State of Florida.

Sargent and Lundy's evaluation of the CSXT proposal concluded that while the concept of retrofitting the Big Bend

and Polk Power Stations to receive coal by rail contained no fatal flaws, the cost estimates for implementation of the concept were grossly understated.

Similarly, Mr. Stamberg's review and adjustments to the CSXT proposal are low and reflect an apparent lack of experience in estimating the design requirements for an electric utility's coal-fired power plant retrofit project of this type.

Both the CSXT estimate and Mr. Stamberg's adjustments fail to consider the need for basic infrastructure requirements, such as ventilation of enclosed areas, expansion of the fire protection loop, electrical hardware required to bring power to the individual pieces of equipment, control hardware and programming to integrate the system into the plant distributed control, relocation and modification of existing plant systems, project indirect costs.

In addition to these omissions, Mr. Stamberg's adjustments failed to consider the need for utility grade equipment. For example, the conveyors were quoted for a dry environment. The conveyors are undersized in width, idler spacing, and idler size.

Finally, the actual design of some of the modifications are completely inadequate, such as the rapid discharge pit, which is half the size of what would be required for these specifications, and by volume, larger differentials

than that.

The bottom line, in the CSXT cost estimate for implementing the two to five and a half million ton build in rail coal delivery systems for Tampa Electric's Big Bend and Polk Power Stations, as adjusted by Mr. Stamberg, is only approximately 21 percent of the amount that would be required to implement this concept based on the engineering standards and guidelines Sargent and Lundy has consistently adhered to in countless similar electric utility retrofit projects. Mr. Stamberg's inexperience and failure to adequately consider essential components of the necessary design resulted in his unreasonably low capital cost estimates and flawed conclusions.

Mr. Stamberg criticized numerous aspects of our design study. Commissioners, I can assure you that assisting our clients with the planning, design and implementation of capital projects for power generation and distribution facilities is our sole charter. It is what we do all day, every day. It is what we have done continuously for 113 years

Sargent and Lundy has designed over 600 fossil fuel power stations, 1,400 units, as discussed earlier. Each of these includes fuel receiving and distribution systems. Additionally, we have performed countless retrofit projects, including fuel switching for new coal delivery systems.

Despite the outlandish allegations by the CSXT witnesses, Sargent and Lundy would never consider shortcutting

our process or making reckless proposals that would damage our reputation as an industry leader for professional services in the power market.

After careful review of Mr. Sansom's assertions and Mr. Stamberg's revised proposal, Sargent and Lundy has found no basis or justification by which to alter its report or cost conclusions. Sargent and Lundy reaffirms the scope requirements and the cost estimates provided within the report.

Thank you.

MR. BEASLEY: I tender Ms. Guletsky for cross examination.

CHAIRMAN BAEZ: Mr. Vandiver?

MR. VANDIVER: No questions.

CHAIRMAN BAEZ: Ms. Kaufman?

MS. KAUFMAN: No questions.

CHAIRMAN BAEZ: Mr. Wright?

MR. WRIGHT: Thank you, Mr. Chairman.

CROSS EXAMINATION

BY MR. WRIGHT:

Q Good evening to you, Ms. Guletsky.

A Hi. I hope this is going to be shorter than last time.

Q I will go so far as to say I fully expect it to be, but part of it is up to you.

You visited the Big Bend site sometime after you

filed your testimony, did you not?

A Yes, I did.

Q Having visited the Big Bend plant, do you believe that the conveyor systems are dirty, clean, or moderate?

A Moderate.

Q Do you believe that they are poorly maintained, well maintained, or somewhere in the middle?

A I would say adequately maintained.

Q Would you agree that they are definitely not poorly maintained?

A Not the conveyors at the Big Bend Station. They are not poorly maintained.

Q Thank you. Are you familiar with CEMA?

A Yes, I am.

Q Are you familiar with the CEMA criteria for idler selection?

A Not specifically.

Q Do you know what the calculation is to determine idler type and spacing?

A I know what the calculation is for determining the belt width. The idler size and spacing, I rely upon the expertise of Mr. Sam Madan, our materials expert at Sargent and Lundy.

Q If belt width is a given, can't you calculate what the appropriate idler spacing and idler size or rating is?

You can, but that is not how you go about the design You start with the calculation of the belt width. And Sargent and Lundy typically would use a four-foot on center spacing for idlers for coal conveying. As does Stone and Webster, apparently, because that is the spacing at the Big Bend Station, and they designed that plant.

Q Did you perform any calculation of the appropriate idler selection and spacing for your conveyor?

A I personally did not, no.

Q Do you know the CEMA methodology for doing these calculations?

A I told you no. I am familiar with the belt sizing calculation. I would rely upon my materials expert to do the rest of the sizing. But we would start with sizing the belt width and then go from there. And we have certain internal standards on what idler sizing and spacing, in addition to what CEMA might prescribe.

Q Do you not agree that the CEMA standards are the industry accepted standards for conveyor specifications?

A They are the industry accepted guidelines. We take those guidelines and use them within the context of the equipment that we are supplying. For example, on the belt sizing, which I am familiar with, we said that you used 50 pounds per cubic foot density, which is appropriate for the coal that we are using. You said you use 35-degree angler

spacing, which is appropriate for the coal that we are using. However, we would, for a new system, restrict the speed to 600 RPM for a coal system. CEMA doesn't speak directly to coal on that. That is a guideline that we would use in sizing the belt.

When I did my deposition, you asked me if I knew what was out at the Big Bend Station, and at that time I told you, no, I didn't because it wasn't relevant for designing the new system, that we had taken the tonnage and calculated what we needed and went from there. Since then, I figured, well, maybe I should take a look at what you had. And the conveyors for unloading coal at Big Bend are rated at 4,000 tons an hour. They are 72-inch belts. If you do the calculations of CEMA with 50 pounds per cubic foot density and the 35-degree angler spacing, like you suggested, you would come up with a 72-inch belt width, which is appropriate for 4,000 tons an hour. The 54-inch belts at Big Bend are rated according to their drawings at 2,000 tons an hour, and that would also come out to be about a 600 speed system as well. So based on my back-check of what was out there after you asked me that, it appears that Stone and Webster's guidelines are the same as Sargent and Lundy's.

Q But isn't it true -- have you reviewed the Tampa Electric Company Big Bend coal yard operations manual?

A I have not reviewed the operations manual, and I don't know the context from which that page came from. I know

that there are two 54-inch conveyors that lead up to the tripper room, and that they are designed for a rated capacity of 2,000 tons an hour apiece. This it is possible that in an operations manual that you may have had a situation where they wanted to know if you could physically get the 4,000 tons up there if one of the conveyors was out. Otherwise, you would have to derate the unit.

So it is possible information like that is contained in there, but based on the information that I saw, that is not the design point. And I don't believe CEMA would suggest that you run it over 900 feet per minute, either.

MR. WRIGHT: I am going to ask my law partner to pass out a confidential exhibit. It is a late-filed deposition exhibit from Ms. Guletsky's deposition.

Mr. Chairman, I believe this will be 108, and we can just call it Guletsky LFDE Number 1, Conveyor Cost Estimates.

CHAIRMAN BAEZ: Show it marked as Exhibit 108, confidential.

MR. WRIGHT: Thank you.

(Exhibit 108 marked for identification.)

BY MR. WRIGHT:

Q Ms. Guletsky, I assume you have seen this document before?

A Yes, I prepared it after my deposition, because I had told you in my deposition that I had -- after I had read

Mr. Stamberg's testimony that I had done an informal benchmarking on our database. And you asked me to provide it. I didn't have anything at the time, so I created this as a late-filed per your request.

Q Thank you. And so it is your testimony that what is stamped as Bate's Page 2 was prepared after your deposition, is that correct?

A Yes, sir.

Q Now, the next page has a date on it that is sometime before your deposition, is that accurate?

A That is correct.

Q And this appears to be a proposal for a coal handling conveyance system, is that correct?

A That is correct.

Q I am looking at Bate's Page 3, and I note that the capacity and the speed appear to have been redacted, is that accurate?

A That is correct, because it wasn't relevant to the benchmarking of the cost. And as I told you when I agreed to do this, that confidentiality for our clients is very important at S&L, and that I was reluctant to share data from other clients, you know, in this. And that the only way I could agree to do it and stay within the confines of our confidentiality agreements with our clients was to only address the information that was pertinent to what you were asking.

And what you were asking me was that you wanted to know how our quotes that we got in benchmarked and costs against our model, because you were uncomfortable with the fact that I had not gone out with a specification for quotes, but used an internal S&L model to establish the cost for the cost estimate.

Q Okay. Well, I recall our conversation as being somewhat different, and that is -- in which we agreed that we would have no problem with you protecting the confidentiality of your client. Frankly, I have some difficulty understanding why the capacity and speed of a conveyor estimate would be confidential, or would be so confidential that you couldn't submit it to the Florida Public Service Commission under confidential protection.

MR. BEASLEY: Is that a question, Mr. Chairman?

CHAIRMAN BAEZ: Is that a question, Mr. Wright?

BY MR. WRIGHT:

Q Well, why did you redact the capacity and the speed?

A I didn't think it was pertinent to the cost information, and I felt like leaving it in could lead it to what conveyors they really were and what client it was.

Q Do I understand -- can I use like the lengths of the conveyors? Can I say those numbers out loud?

A Uh-huh.

Q So am I correct that the benchmarking analysis you did was based on two different conveyors, one of which was 267

feet in length and one was 204 feet in length?

A That is correct.

Q Thank you. If you look in the second line of Note 1 on your Bate's Page 2, there is a parenthetical statement. Is that statement confidential, the one that begins "i.e."?

A On Note 1.

Q The second line of Note 1 there is a parenthetical there that includes a statement that begins "i.e."

A Well, I was explaining how our cost model was developed. We went to conveyor manufacturers and component manufacturers to obtain pricing, and it included -- I wanted to explain that it is not, you know, three data points; that it is a lot of data points. And that for each conveyor width, we had three different distinct size ranges because there are different costs per linear foot with the different ranges. And that we had, I believe, eight different categories across the top. So I was just trying to explain our model.

Q I understand the explanation. The question that I asked you was is the statement that is contained in the parenthesis there confidential or can you read it out loud?

A The longer the conveyor, the lower the price per linear foot.

Q Thank you.

A For that category.

Q For the second conveyor there, is the identity of

that vendor, that conveyor vendor confidential?

A No.

Q Okay. FMC, right? We have been talking about FMC for a lot of the afternoon?

A Uh-huh.

Q If you look at Bate's Page 4, in Section 2.13a?

A 2.13a. Uh-huh.

Q Does that show the diameter of the drive pulley for this conveyor?

A Yes.

Q Okay.

A As proposed.

Q I am going to come back to this line of questioning.

MR. WRIGHT: I apologize for the delay, Mr. Chairman. I know it is late.

Mr. Chairman, Mr. Lavia is handing out a package of some representative -- what I aver to you are representative photographs of conveyors. We will ask the witness about them, and I would ask that this be marked as, I believe, Exhibit 109. We will just call it conveyor photographs.

(Exhibit 109 marked for identification.)

BY MR. WRIGHT:

Q Ms. Guletsky, I am guessing you recognize the first two pictures here. I don't know whether you recognize the last one or not. Do you recognize the first two?

A I think these are Big Bend Station.

Q That is my understanding, and I have been there and they look like the ones I saw.

A I think they are.

Q Okay. I am really not going to ask you detailed questions about the specific conveyors. I just want to ask you about their types. It is my understanding that there are -- and there is a question coming after this -- that there are three types of conveyors, open, hooded or enclosed, and housed. Is that consistent with your understanding of the taxonomy of conveyors?

A Open conveyors, hooded conveyors, and totally enclosed, is that what you said?

Q Yes, ma'am.

A Yes.

Q Okay. Those shown in the first page of what has now been marked as Exhibit 109, what kind are they?

A I believe they are hooded conveyors, but I can't -- I believe they are.

Q Thanks. Those that are shown -- there appear to be two different types shown in the second page. Could you tell us about those in the taxonomic system we are discussing here?

A The conveyors with the blue are totally enclosed. I am assuming they are totally enclosed. I don't know for a fact. They look like they are totally enclosed. I would

expect them to be, because the first section goes over a roadway and the second section goes over a waterway.

Q And the section in the middle is, what do you think?

A It appears to be hooded.

Q And in the last picture?

A That is a gypsum conveyor by the way.

Q Thank you. And in the last photograph, what do those appear to be?

A What is this last photograph? Can you share with me what plant this is?

Q My understanding is that these are coal conveyors at Gulf Power.

CHAIRMAN BAEZ: Put it in the form of a question, Mr. Wright.

MR. WRIGHT: Yes. Well, she asked me a question.

CHAIRMAN BAEZ: I let that one slide, but you should know better.

THE WITNESS: I have never seen this before. It looks like an enclosed conveyor, but it is possible it is a hooded conveyor. I don't know. I have never been to that plant. It looks like it is an enclosed conveyor, but I am guessing.

BY MR. WRIGHT:

Q Well, thank you.

A Is that what you needed from me? I don't know what

you are asking me.

Q Do the conveyors in the third photograph or the conveyor housing in the third photograph appear to be more substantial than those in either of the first two photographs to you?

A I don't even begin to want to answer that question. I don't know what is inside these housings. There is no way for me to make a judgment on that. I have never seen these before.

Q Okay. Let's go back to Exhibit 108, and I apologize for the confusion. There are two proposals in here, and I got them crossed up. With regard to the Roberts and Schaefer proposal?

A Yes, sir.

MR. BEASLEY: Page reference?

MR. WRIGHT: It begins on Page 10, Jim, and that is Bate's Page 10. I'm going to be asking her a couple of quick questions about information on Bate's Page 11 and Bate's Page 13. The drive pulley diameters shown there has a numeric value. Is that numeric value confidential.

A I don't -- I mean I gave this information so that we could discuss it.

Q Well, the thing is the document itself is regarded as confidential.

A Yes.

Q And so we are all trying to be real careful not to be abrogate confidentiality. You know, I'm not asking anything about the specific job or anything else. I'm going to ask you to do a calculation that may shed some light own belt widths, and speeds, and things like that. So can you tell us what the drive pulley diameter is?

A Twenty-four.

Q Is that inches?

A Inches.

Q Thank you. And the RPM output which is shown around the middle of Bate's Page 13?

A I left that in there? Okay.

Q What is that?

A 1750.

Q Actually, I meant to ask you, if I didn't, I meant to ask you about the RPM output?

A 121.6.

Q Okay. To calculate the speed in feet, wouldn't we simply take the perimeter of the drive pulley and multiply that by the RPM output?

A Sam would be doing that calculation. I don't know. I told you I know how to calculate the width of the conveyor. That is the extent of my knowledge. I would go to my expert, Sam Madan, for the rest. And, again, please note that these are as-bid documents. It doesn't mean that is what we

accepted, if that's where you are heading, if you think something is amiss.

What I was trying to do is that you had a big claim that our costs weren't right, and I was trying to take information we had in-house to benchmark it against our cost database. And that is all I was trying to do is to make sure that our database fell within the right guidelines. So I'm not sure why we are designing the conveyors here. I'm sorry, but I can't answer year question, because I'm not the material handling person. As I said in my rebuttal testimony, that would be Sam Madan.

MR. WRIGHT: And, Mr. Chairman, she has offered this as her claim to benchmark for what she did, and I'm trying to inquire of her. My proffer is this: I think that if one does what I think is a fairly simply geometric calculation, which even I think I can do, it is going show a belt speed that is a whole lot faster than what she says Sargent and Lundy is willing to accept. If you multiply 24 inches times five.

CHAIRMAN BAEZ: You can --

BY MR. WRIGHT:

Q Can do you this geometric calculation?

A Sir, I just got done saying that I know how to do the calculation for the belt width. I have done the calculation for the belt width based on 600 RPM speed. I have done the calculation for the belt width on the exiting systems of Big

Bend at 600 RPM, and guess what, 4,000 tons an hour at 50-pound density at 35 angler at 600 RPM comes out to 72-inch belt width. I don't know how to do these other calculations. I think I said that.

Q You don't know how to do a belt speed calculation?

A No.

Q Okay.

A I would go to Sam Madan to do that. And that is not how we back into it. We design it at 600 and determine the belt width from that. And these are as-bid documents, and I was presenting them for cost benchmarking, not to get into all the intricacies of whether they bid. I don't even know that what they bid, you know, what we changed to it before we buy it. But I needed some -- I wanted some method of back-checking.

And I offered that I did that as an after, because you -- Mr. Stamberg was so -- I don't know how to say it. He said that our numbers were so far off. I said, we have got this database that we use for every client. It's got 216 points on it. We benchmark it with new information every time we get new information in. It is the same database we use for every single utility client. But, gee, maybe I should benchmark it again.

And so that is what I did, and I didn't go in and see if, you know, every little widget -- I don't claim to be the

person who would do that. But I did do the calculations on the belt width, and I would be glad to share that with you if you would like at 600 RPM.

Q No thank you.

A Okay.

Q You did not get any vendor quotes for the job at Big Bend, did you?

A No, I did not, and that is consistent with our guidelines.

Q Do you have a copy of Sargent and Lundy's report with you?

A Yes, I do.

Q I have a few questions for you that I believe will relate to what is marked as Bate's Page 455 on my version. It is also Exhibit 2A2 in your numeration system, Page 1 of 4.

A Okay.

Q Okay. Just to make sure that we are literally on the same page, if you could look, are there two columns of numbers kind of down the middle there? And if you look at the two numbers at the very bottom of those two columns, are the row titles confidential?

A I'm sorry.

Q Are the row titles confidential? Where it says belt conveyor, blah, blah, blah, is that confidential?

A No.

Q Okay. So the last row on that page is a belt conveyor, is that accurate?

A Yes.

Q Okay. Can we say out loud the percentage that the installation costs for that particular belt conveyor in the bottom row is of the total cost?

A For that particular conveyor, which is at the shuttle area, it is 40 percent.

Q Thank you. And for the belt conveyor three lines above that, is that also 40 percent?

A That looks like more than 40 percent.

Q Well, try multiplying .4 times 1.7 million and see what you get?

A Yes. You're right, that is 40 percent as well.

Q Okay. And if you look at the other numbers down in there, those are also all 40 percent, are they not, the installation cost as a percentage of the equipment cost?

A For those particular components, yes.

Q Okay. Well, let's look about in the middle, it says, belt conveyor 60-inch wide, 3200 feet long, hooded conveyor. What percentage does installation cost represent of the equipment cost for that item?

A It is more than 40 percent, and there is a reason for that.

Q First tell us what the percentage is?

A Well, let me calculate it. Hold on.

Q Thank you.

A Eighty percent.

Q Okay. Why is that one 80 percent and the other ones are 40 percent?

A Well, we sat down with our construction management team when we were putting the layout and the estimate together. We were going into an existing power plant where they are going to continue to operate while we are doing this work. And that conveyor runs along the road that gets 200 trucks a day, and we didn't think the efficiency for installing that work would be the same as in this other area where the shuttle and loading was, which was more clear. So we made a judgment call on that.

If it was a greenfield new plant without existing operations, it would have been closer probably to 40 percent, but we had to take into account working around the existing operation.

Q Do you know whether EVA's design for the proposal proffered by Mr Stamberg provides dust suppression at the unloading pit?

A Let me think. Mr. Stamberg's estimate?

Q Yes.

A He said that it did.

Q Okay.

A I don't know that the original estimate did, but

Mr. Stamberg said that it did, his did.

Q In your deposition I believe you testified that conveyors operating above 700 feet per minute can result in coal spillage and dust problems. Do you recall that?

A I said they would be more likely to have coal spillage and be more dusty. That is correct.

Q Can you name a specific coal handling system where you have observed such spillage and dust problems where the conveyor was being attempted to operate at above 700 feet per minute?

A I don't know the answer to that. It is a guideline used by our materials handling group and, apparently, again, the original designers of the plant.

Q You have reviewed Mr. Stamberg's testimony and exhibits, have you not?

A Yes, to some extent, the best I could.

Q I believe in your testimony, you state that it is your opinion the FMC quote appears to be for a light-duty conveyor. I'm going to hand you a page, and I will give you everything if you want it. Do you have Mr. Stamberg's testimony there?

A Yes, I do some place.

Q I saw you had a notebook with a lot of stuff.

A Well, I tried to be ready here.

Q Thank you. If you could look at his Exhibit JBS-4.

It is a nonconfidential exhibit.

A His original testimony?

Q He only had one testimony.

A Not his deposition?

Q Correct, his testimony. This is an exhibit to his testimony. It is in the white pages. In the bottom right-hand corner, there is a sticky label.

A What is the page number?

Q The exhibit is JBS-4, and it is Page 5 of 13 of that exhibit?

A Okay. And what page?

Q Page 5 of 13 of Mr. Stamberg's exhibit, JBS-4?

A Okay.

Q Toward the bottom under operating conditions how does FMC describe the service rating for that conveyor?

A Operating conditions: Continuous; 24/7; outside typically dry, extreme service; power supply, customer to provide.

Q Thank you. Now you didn't do the CEMA calculations for either your conveyors or Mr. Stamberg's conveyors, did you?

A Mr. Sam Madan did them, but I did back-check them, yes.

Q Okay.

A For the belt width.

Q Well, would Mr. Stamberg's -- using the CEMA

guidelines, wouldn't Mr. Stamberg's conveyor specifications satisfy the CEMA criteria?

A Well, the CEMA criteria are part of the guideline. He allowed the speeds to go up in excess of what Sargent and Lundy's guidelines would say are appropriate for a new coal conveyor. I believe the CEMA guidelines -- and I am not the expert, Sam is -- but they don't speak specifically to coal. They talk about all different types of things. But our guideline is 600 feet per minute, as is Stone and Webster's, and, apparently, Bechtel, because I looked at the Morgantown ones in there also under 600 feet per minute as well. So we have Bechtel, and Sargent and Lundy, and Stone and Webster all believe that the speed should be 600 feet per minute or less for a new conveyor system.

MR. WRIGHT: I'm going to approach the witness and hand her a textbook.

THE WITNESS: This isn't a book we use.

BY MR. WRIGHT:

Q Would you please -- well, would you please identify that book?

A Mechanical Conveyor Selection and Operation, Muhammed Fayed.

Q Have you ever seen that book?

A No.

Q Please open to Page 106. Now, I will aver you that

appears to be a table regarding maximum belt speeds, courtesy of CEMA. Does that appear to be what I say it is?

A Yes, it does appear to be what it says is it, but this isn't the CEMA handbook.

Q Isn't it true that in the second block of information there it does, in fact, deal with coal?

MR. BEASLEY: I want to object, Mr. Chairman. This is roughly a 500-page textbook, or book that the witness indicates she has not seen before. I think it is highly unusual and unfair to ask her questions about one line in a textbook.

MR. WRIGHT: Mr. Chairman.

CHAIRMAN BAEZ: Hang on; hang on. Help me understand your question to the witness again.

MR. WRIGHT: Well, she said that the CEMA guide -- by way of a proffer, she said that CEMA guidelines don't address coal. I'm showing her a table in what is an engineering materials handling conveyor textbook that shows, it certainly indicates that the CEMA guidelines do address coal. And I think it's completely appropriate to use a textbook to interrogate a witness holding herself out to be an expert.

CHAIRMAN BAEZ: Hold on. Let's hold off on that word interrogation. I don't think that is that popular right now.

Mr. Beasley.

MR. BEASLEY: Yes, sir.

CHAIRMAN BAEZ: Your objecting that the witness is being asked to read out of a -- or at least take note of something out of a textbook? Is this essentially what you are objecting to.

MR. BEASLEY: That is correct, sir. We don't know who wrote this textbook or what their qualifications were. They are not here. They are not testifying.

THE WITNESS: It has coal and five other different types of things here. Our standard is 600 feet per minute for a new coal conveyor.

CHAIRMAN BAEZ: Ma'am, and with all due respect, if the question -- if the question is merely to acknowledge what is on the page of a textbook, I think you can pretty well do that.

A It says coal, damp clay, soft ores, overburdened earth, fine and crushed stone. It is a subset, which we drill in more specifically.

BY MR. WRIGHT:

Q And understanding that Sargent and Lundy may not agree with it, isn't it true that the recommended maximum belt speed for a belt width of 42 to 60 inches shown in this table is 800 feet per minute?

A Yes, it is, for coal, damp clay, soft ores, overburdened earth, fine and crushed stone in this textbook, yes.

Q Thank you. In preparing your rebuttal testimony, did you ever contact anyone at FMC Technologies?

A No.

Q Did you ever contact anyone at Continental Conveyor?

A No.

Q Do you know the difference between FMC Energy Systems and FMC Technologies?

A No, not personally.

Q Your conveyor in your late-filed deposition exhibit, that was prepared by whom, which FMC company? I think it is FMC Energy Systems, if you will just confirm that.

A I will need to read it, I don't know off the top of my head.

It says FMC Energy Systems, yes.

Q Thank you. Do you know the specifications of the hooded conveyors at Big Bend?

A Do I know the tonnage rating, is that what you are asking me?

Q Actually, I was meaning to ask you about the construction specifications. Do you know about the materials, the metal materials that are used to make those hooded conveyors?

COMMISSIONER JABER: Mr. Wright, can I ask you a question?

MR. WRIGHT: Yes. Certainly.

COMMISSIONER JABER: Did you depose this witness?

MR. WRIGHT: Yes, ma'am.

THE WITNESS: For eight hours.

COMMISSIONER JABER: Excuse me, Ms. Witness, you only get to talk when you have a question posed to you.

THE WITNESS: I'm sorry.

COMMISSIONER JABER: Did you depose her?

MR. WRIGHT: Yes, ma'am.

COMMISSIONER JABER: Did you ask her these questions?

MR. WRIGHT: I don't think that I did. I'm asking her these questions based on her late-filed deposition exhibit?

COMMISSIONER JABER: Do we have her deposition as an exhibit?

MR. WRIGHT: It has not been filed as an exhibit in this case.

COMMISSIONER JABER: Okay. This just sounds like discovery to me. Go ahead. I think I made my point. Go ahead.

MR. WRIGHT: Yes, you have. Thank you.

BY MR. WRIGHT:

Q If I could, I would like to ask you to go back to Bate's Page 455, which is Page 14 of your Exhibit 2A2 with the cost information on it that we were discussing a little while ago?

A 2A2, did you say, sir?

Q 2A2, yes. The same page we were on a few minutes ago.

A Okay.

Q And my question for you, isn't it true that the cost per foot for the 3200-foot conveyor and the cost per foot for the 500-foot conveyor are exactly the same?

A Yes, they are.

Q Well, how does that square with your statement in your own document that the longer the conveyor the lower the price per linear foot?

A We have three cost breaks in our model.

Q And they are what?

A One hundred, 250, 500 and over.

Q In your benchmark, why did you use conveyors of 204 and 267 feet, respectively?

A I used what we had bids on most recently, and that is what they happened to be.

Q And that was in March of this year, right?

A They are dated.

Q Is that the correct date?

A Yes, sir.

Q Thank you. Do you know what the soil type is at Big Bend?

A No, I do not. That is not something that we would do in a screening study as we discussed before.

Q Do you know of any power plant coal pits that are 25 feet or less deep?

A No.

Q Are you a certified cost consultant as certified by the Association for the Advancements of Cost Engineering or AACE?

A No, I'm not.

Q Are you a certified cost engineer under whatever designation program the AACE maintains?

A No, I'm not.

Q Are you a member?

A No, I'm not.

Q Is Mr. Sam Madan, whom you mentioned, any of these things?

A I don't know for certain, but I would assume no, because he is a material handling expert within S&L. And we are qualified within our company to standards to do specific tasks.

Q The same question with respect to Mr. Yee?

A I would imagine no. He is a senior project manager like myself.

Q Did you personally review the AACE estimating committee standards in preparing your testimony in this case?

A No. We used the Sargent and Lundy method that I explained in my deposition.

Q Do you know how, if at all, Sargent and Lundy's standards compare to or differ from the AACE standards with regard to conveyors?

A Not specifically, no.

Q The same question with regard to discharge pits and other discharge facilities?

A Not specifically, no.

Q Did you rely on some amount of client-supplied information in preparing your study?

A Yes. The client-supplied information that is included as an exhibit to my report, and it is identified as such both in the report and as we discussed in my deposition.

It is normal, customary for us to use input from a client, particularly in areas where they would have a better understanding than we would. However, that does not absolve us of the obligation of reviewing the numbers and making sure that they make sense before we use them in a document that has our name on it.

Q Isn't it true that the only plot plans or drawings that were furnish to you by Tampa Electric in connection with this project were those relating to the limestone pit?

A The limestone pit and the drawings that were included with the CSXT proposal.

Q In your deposition we discussed the fact that the number, the cost values for the 3200-foot conveyor doubled from

the first estimate on your draft of September 4th to September 18th, and I asked you did you know why that was. Do you know now?

A Yes, I think I do know now. The number, the total project cost doubled. If you go back to the draft document, you will see that it doubled as a result of the equipment cost being entered incorrectly into the spreadsheet. I didn't have the draft document when you asked me in my deposition, because we don't keep that. But after you pointed it out, and it was attached to Mr. Stamberg's, I went back and took a look when I had more time. And the 3200-foot-long hooded conveyor had been entered into the spreadsheet with the material cost of $480,000 instead of $4,800,000. There was an order of magnitude error in the data entry. I done think anyone here would suggest that you could by 3200 feet of conveyor for $480,000. And that change resulted in doubling the total cost.

The draft was an unchecked document. As I explained in my deposition, we issued the draft to Tampa Electric so that they could take a look at the level of detail that we were providing and let us know if we had any major scope errors in what we were doing. It was unchecked. It was marked as a draft, and we made the corrections in our review process.

Q When you went to Big Bend, did you observe the conveyors involved with the loading of the Polk fuel onto trucks?

A I don't think they were loading any coal to Polk while I was there.

Q The question I asked you is did you observe the conveyors that are used for loading coal into trucks for delivery to Polk?

A I don't know that I looked specifically at those. I apologize. I was looking at the conveyors as -- for the Big Bend station primarily.

Q Do you know whether those conveyors are hooded, or totally enclosed, or open?

A Again, I don't recall. My main focus was to look at the Big Bend conveyors.

Q Did you review any permitting documents in connection with your project?

A No. We do permitting as part of a screening analysis.

Q Did you talk to anybody at the Florida Department of Environmental Protection or the Hillsborough County Environmental Protection Commission about permitting?

A Absolutely not. We would never do that in a screening analysis. We would need the permission of the utility to make those contacts.

Q In your deposition I understood you to say that there were estimates behind what went into the tables contained in your report, is that accurate?

A I'm sorry, can you --

Q In your deposition we talked about rounding of the numbers that actually appear in your table.

A Yes.

Q It was kind of in the context of the fact that many of the numbers appear to be multiples of the exact same number. Do you recall our conversation?

A Yes, I do.

Q Okay. I asked you whether there were estimates behind those numbers, i.e., pre-rounding, and I believe you said that there has been such estimates, is that true?

A That is correct.

Q Okay. I also asked you if any document existed to show what those prior estimates might have been to furnish it. You did not furnish it, did you?

A No. They do not exist. In our process, once we finish our project and close it out, we archive the report as it is and the documents as they are, and only retain the end result for a six-year period. And the rest -- once the project has been closed out, we don't keep that for a number of reasons. On the estimates, one of which is we don't want someone who wasn't involved in this estimate picking it up and using it incorrectly for something else and getting the wrong conclusion.

So our archive is what we call a dumbed-up copy. But

prior to issuing it, there is -- I mean -- okay. You don't want to hear it, okay. It was reviewed several times before we issued it, including the backup documents. And so then once it is issued, it is considered a complete document. And when we close the contract out, we keep the end result.

Q And destroy or discard the rest?

A That is our process.

Q The answer is yes?

A Yes.

Q Isn't it true that you did not compare your dust suppression system assumptions to the existing dust suppression equipment at Big Bend?

A That's correct. We used information from new dust suppression systems we had in-house.

Q Regarding O&M costs, do you know what the crew size for the unloading of the barge equipment at Big Bend is?

A Nope.

Q You never talked to the Hillsborough County Tax Assessor's Office regarding the tax rate and the O&M costs furnished by Tampa Electric, did you?

A Excuse me. Repeat the question.

Q Did you ever speak to anyone, you or anyone else with Sargent and Lundy, ever speak to anyone with the Hillsborough County Tax Assessor's Office in connection with the estimated tax part of the O&M costs furnished to you by Tampa Electric,

did you?

A No, sir, I did not.

Q Thank you. Isn't it true that you didn't do any optimization studies of the rail coal handling system?

A That is correct. We took a look at the concept provided by CSXT. We looked at it for fatal flaws. We looked at it for errors and omissions. We finalized a scope. We costed the scope from there. It is not our practice to do optimization studies for a screening. If a project gets past the screening analysis, typically, the utility would request that a certain level of optimization studies be done. That is usually a six-month to a year process, and that is usually in the stage two development of a capital project.

Q Will you agree that there are no fatal flaws in Mr. Stamberg's basic design?

A I believe I said that already, yes.

Q Thank you.

Did you do any analysis of CSXT's proposal or Mr. Stamberg proposal with respect to the steel and concrete requirements relative to the Florida Building Code?

A No. We were asked to do an independent cost analysis of what we thought it would take to implement the concept.

Q Without going into the details of the schedule that you contemplate in your work, will you agree that the schedule that you contemplated can be shortened, i.e., that it is

possible?

A You mean the schedule that I provided with my rebuttal testimony?

Q Yes.

A I think the schedule that I provided is an aggressive one. Can it be shortened? Yes. The cost of shortening the schedule would make the cost of the estimate go up, because you would have to then pay premiums to get equipment delivered earlier, and premiums on labor for extra shifting or overtime hours. So I didn't base the schedule on an accelerated plan because that is not how I had costed the job.

MR. WRIGHT: Thank you, Mr. Chairman.

Thank you, Ms. Guletsky. I don't have any more questions.

CHAIRMAN BAEZ: Thank you. Mr. Twomey has stepped out. So I'm assuming -- I'm assuming by his absence he has no questions. No, I don't think that's a joke. You either be here for the questions or not.

MR. KEATING: He has indicated to staff that he has no questions for this witness.

CHAIRMAN BAEZ: All right. Thank you

Staff do you have questions?

CROSS EXAMINATION

BY MS. RODAN:

Q Ms. Guletsky, in your testimony, on Pages 6 through

8

A In my testimony or the deposition, ma'am?

Q Testimony.

A Okay. Let me find it.

Q On Pages 6 through 8.

A Yes, ma'am.

Q You discuss various estimate accuracy rates?

A Yes, ma'am.

Q What is the estimate accuracy rate for the cost estimates shown in the table on Page 11 of your testimony?

A It's a screening type estimate, and we have assigned an accuracy of plus 15, minus 30.

Q Is it possible that the ultimate costs required to adequately retrofit Big Bend and Polk to allow for rail delivery of coal, in addition to the existing barge and truck delivery system, could fall outside the range of estimates just mentioned?

A Is it possible? I suppose so. I wouldn't say it is probable, based on the scope that we have defined.

Q Has Sargent and Lundy completed a post hoc cost estimate accuracy analysis of any of the projects for which it has provided screening phase cost estimation services?

A We don't have a formal procedure that does that, but on the project closeout, we typically sit down with the clients and review that. That is usually part of our report card is

how well we were able to predict for them what their budgets were going to be and what the schedule was going to be to do the work. Some clients we actually have ranging fees, depending on how well they grade us.

On the projects that I have specifically worked on, two of the ones, the more recent ones that come to mind, the final installed cost on the Constellation project that I worked on were within -- it was three peaker units, it was within two percent of the estimate that we gave them. And the Kincaid (phonetic) coal conversion project, we had estimated 12 and a half million, and it ended up at 14, a little under 14. So my personal record has been, you know, that we have done pretty well. But we don't keep -- you know, there is not a procedure in place to keep every little thing.

Q Thank you. Please refer to your testimony on Page 25, Lines 1 through 3?

A Lines 1 through 3? Okay.

Q Here you state that it has been your experience that the reuse of existing assets is typically more costly than using new equipment, is that correct?

A Yes, ma'am. It often comes up on retrofit projects that while we are, you know, getting the scope lined out and doing optimizations that the client has, you know, hardware, either on the plant or at another the plant, or wants to buy used equipment. And by the time we take into account

disassembly, bringing up to code, reassembly, transportation, the costs add up, and the risk -- the cost benefit and the risk of the operation of the component, it doesn't usually pan out.

Q If rail facilities were installed to match the specifications of the facilities you believe are appropriate for the retrofit of Big Bend and Polk, could such equipment and facilities have a significant value in reuse or in salvage, assuming Tampa Electric stopped using coal at Big Bend in 2007 through 2010?

A I don't believe so. If Tampa were able to reuse it within their system, and it was designed to begin with to be, what I will call be able to disassemble it in truck-long pieces or railcar-long pieces without having to totally break it down, I suppose we could design it that way. But if they didn't have a use for it -- typically, power plants components, you know, unless we are talking about a turbine which is, you know, a hundred million dollars, it doesn't usually pan out that way.

MS. RODAN: That's all the questions I have. Thank you.

THE WITNESS: Thank you.

CHAIRMAN BAEZ: Commissioners? No questions?

Go ahead, Mr. Beasley.

MR. BEASLEY: Just one redirect on Ms. Guletsky's qualifications.

REDIRECT EXAMINATION

BY MR. BEASLEY:

Q Could you tell us, if you know, on how many electric utility projects you have served in the capacity of project manager for Sargent and Lundy.

MR. WRIGHT: Mr. Chairman, I don't recall her being cross-examined on that subject.

CHAIRMAN BAEZ: You cross-examined on whether she was a member of professional associations, and what her qualifications were.

MR. WRIGHT: The AACE.

CHAIRMAN BAEZ: So I'm going to allow it.

MR. WRIGHT: Okay.

A Several dozens, maybe three dozen. I'm managing five projects right now.

Q How many of those were utility retrofit projects?

A All but two.

Q I'm sorry?

A All but two.

MR. BEASLEY: Thank you. That is all the redirect I have.

CHAIRMAN BAEZ: Thank you. Exhibits?

MR. WRIGHT: 108 and 109 over here.

CHAIRMAN BAEZ: Without objection, show 108 and 109 admitted.

MR. BEASLEY: I would like to object to the third

page of 109 -- excuse me. Yes, 109. The grainy photograph, the only testimony about which was offered by Mr. Wright, and it appears to be a -- perhaps an alien object. I'm not sure what it is. It could be a photograph of Mr. Willis' backyard railroad, garden railroad. But I would object to it as being not something the witness was conversing about and did not --

MR. WRIGHT: Mr. Chairman, we can rip it off. That will be fine.

CHAIRMAN BAEZ: I'm pretty sure it didn't matter one way or the other.

MR. WRIGHT: You are correct.

CHAIRMAN BAEZ: I don't think anybody could make sense of it.

MR. BEASLEY: And I would like to move Exhibit 61, if I could, sir.

CHAIRMAN BAEZ: Show Exhibit 61 as admitted into the record. And just for the record 109 is not objectionable to TECO.

MR. BEASLEY: That's right.

CHAIRMAN BAEZ: Very well. Show that one admitted as well.

(Exhibits 61, 108 and 109 admitted into evidence.)

CHAIRMAN BAEZ: Ms. Guletsky, thank you.

THE WITNESS: Thank you.

CHAIRMAN BAEZ: Okay. Everybody has gotten a break

except me. So now I need a five-minute break, and we will be back for our last witness. Thank you.

(Brief recess.)

(Transcript follow in sequence in Volume 11.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Office of Hearing Reporter Services, FPSC Division of Commission Clerk and Administrative Services, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 16th day of June, 2004.

JANE FAUROT, RPR
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FPSC Division of Commission Clerk and
Administrative Services
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