Nuclear Operating Company

South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

April 9, 2008
NOC-AE-08002286
File No.: G25, D57, D43.1
10 CFR 2.390
10 CFR 50.82(a)(8)

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Washington, D.C. 20852-2738

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498 and STN 50-499
Response to Request for Additional Information for
Request for Exemption from 10 CFR 50.82(a)(8) (TAC No. MD6869/MD6870)

By letter dated September 19, 2007, STP Nuclear Operating Company ("STPNOC"), acting on behalf of NRG South Texas LP ("NRG South Texas"), the City Public Service Board of San Antonio ("CPS") and the City of Austin, Texas ("Austin Energy") (together, the "STP Owners"), requested an exemption pursuant to 10 CFR 50.12 from Nuclear Regulatory Commission ("NRC") regulations to permit the immediate withdrawal of certain funds from the nuclear decommissioning trust funds (NDTs) maintained by the STP Owners for South Texas Project Electric Generating Station Units 1 and 2. Specifically, the STP Owners requested an exemption from provisions of 10 CFR 50.82(a)(8)(i) & (ii) which may restrict the withdrawal of funds from NDTs until after permanent plant shutdown.

The purpose of this exemption request is to permit the use of NDT funds, not to exceed $20 million per unit, in order to pay for the prompt disposal of certain major radioactive components (MRCs). These MRCs are the reactor pressure vessel ("RPV") heads to be removed from the Facility in the upcoming Fall 2009 Unit 1 outage and the Spring 2010 Unit 2 outage, as well as the steam generators that were removed from the Facility in 2000 and 2002.

On March 3, 2008, NRC requested that STPNOC provide additional information regarding the exemption request, and STPNOC's response is provided as an Enclosure to this letter. In addition to the requested information, STPNOC is also providing supporting documentation as Attachments 1, 2 and 3 to the Enclosure. Attachments 2 and 3 provide certain cost estimates and proposals that are commercially sensitive, because they either reflect STPNOC's methodologies for estimating project costs that are expected to be competitively bid (if the Exemption Request is denied) or are a specific bid proposal that has been submitted to STPNOC. STPNOC therefore requests that this proprietary information be withheld from public disclosure pursuant to 10 CFR 2.390, as described in the enclosed Affidavit of James J. Sheppard.

This letter and attachment contain no new commitments.

A001
NRR

STI: 32291463

If NRC requires additional information concerning this request, please contact either Mr. Philip Walker at (361) 972-8392, or me at (361) 972-8757.

J. J. Sheppard
President & Chief Executive Officer

Enclosure: Response to NRC Request for Additional Information

cc:
(paper copy)

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

Mohan C. Thadani
Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North (MS 7 D1)
11555 Rockville Pike
Rockville, MD 20852

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 289, Mail Code: MN116
Wadsworth, TX 77483

Richard A. Ratliff
Bureau of Radiation Control
Texas Department of State Health Services
1100 West 49th Street
Austin, TX 78756

C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

Brian Almon
Public Utility Commission
P.O. Box 13326
1701 North Congress Avenue
Austin, TX 78701-3326

Environmental and Natural Resources
Policy Director
P.O. Box 12428
Austin, TX 78711-3189

Judge, Matagorda County
Matagorda County Courthouse
1700 Seventh Street
Bay City, TX 77414

(electronic copy)

A. H. Gutterman, Esq.
Morgan, Lewis & Bockius LLP

Mohan C. Thadani
U.S. Nuclear Regulatory Commission

Thad Hill
Eddy Daniels
Catherine Callaway
Brad Porlier
Steve Winn
Staney Rostad
NRG South Texas LP

J. Nesrsta/R. J. Temple
E. Alarcon/Kevin Pollo
City Public Service

Jon C. Wood
Cox Smith Matthews

C. Kirksey
City of Austin

STI: 32291463

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
STP Nuclear Operating Company	)	Docket Nos. 50-498
	)	50-499
South Texas Project Units 1 and 2	)	

AFFIDAVIT

I, James J. Sheppard, President and CEO of STP Nuclear Operating Company (STPNOC) do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of STPNOC.

2. STPNOC is providing information in support of its Exemption Request dated September 19, 2007. The information being provided in Attachments 2 and 3 to STPNOC's response to NRC request for additional information contains STPNOC's projections of project costs and bid proposals made to STPNOC. Attachments 2 and 3 constitute proprietary commercial and financial information that should be held in confidence by the NRC pursuant to the policy reflected in 10 CFR 2.390(a)(4), because:

   i. This information is and has been held in confidence by STPNOC.

   ii. This information is of a type that is customarily held in confidence by STPNOC, and there is a rational basis for doing so because the information contains sensitive financial information concerning projected costs of STPNOC or bid proposals made to STPNOC.

   iii. This information is being transmitted to the NRC voluntarily and in confidence.

   iv. This information is not available in public sources and could not be gathered readily from other publicly available information.

   v. Public disclosure of this information would create substantial harm to the competitive position of STPNOC by disclosing its internal cost projections and/or consideration of bid proposals.

3. Accordingly, STPNOC requests that the designated documents be withheld from public disclosure pursuant to 10 CFR 2.390(a)(4).

J. J. Sheppard
President & Chief Executive Officer

STATE OF TEXAS)
)
COUNTY OF MATAGORDA)

Subscribed and sworn to me, a Notary Public, in and for the State of Texas, this 9th day of April, 2008.

LOIS J. MILLS
Notary Public, State of Texas
My Commission Expires
JULY 27, 2011

Notary Public in and for the
State of Texas

SOUTH TEXAS PROJECT

UNITS 1 AND 2

Response to NRC Request for Additional Information

In 2007, the STP Nuclear Operating Company (STPNOC) initiated a new site-specific decommissioning cost study for South Texas Project Units 1 and 2 (STP Units 1 & 2) that was conducted by TLG Services, Inc. and completed in March 2008 (2008 TLG Study). Attachment 1 to this Enclosure provides selected pages that are relevant to this RAI response. STPNOC notes that TLG's estimates for disposal of large components are lower in current 2007 dollars than the estimate provided in the 2004 study in 2004 dollars and submitted to NRC with STPNOC's September 19, 2007 Exemption Request. The current TLG estimates are based, in part, upon the attractive pricing in current proposals that STPNOC has received for the disposal of these large components in 2008. The differences between the estimates in the 2004 TLG Study and the estimates in the 2008 TLG Study are indicative of the pricing available currently, and not necessarily the pricing that may be expected if this cost is deferred until the end of plant operating life.

1. ***The STP Nuclear Operating Company (STPNOC, licensee) stated that the cost to construct an on-site storage mausoleum would be $1.4 million. In addition, STPNOC stated that the mausoleum also resulted in an annual cost to maintain it, and the eventual cost to decommission it. These costs are part of the basis for the exemption request. Please provide a detailed cost for the mausoleum as well as the associated maintenance and decommissioning costs.***

   STPNOC has prepared a "Project Evaluation and Approval" which was the basis for estimated cost to construct an on-site mausoleum for the reactor pressure vessel (RPV) heads. This analysis resulted in a Total Probabilistic Cost of approximately $1.4 million. A copy of this project evaluation is provided as Attachment 2, which is marked confidential and proprietary. STPNOC has not yet sought competitive bids for this project, but STPNOC would expect to seek competitive bids for this project if the pending Exemption Request is denied. Therefore, STPNOC requests that this document be withheld from public disclosure pursuant to 10 CFR 2.390, as supported by the Affidavit of James J. Sheppard.

   Annual maintenance costs for the mausoleum are for ongoing surveillance and surveys and potential repairs or improvements during the life of the facility. Based upon experience with the Old Steam Generator Storage Facility (OSG SF), which is described in greater detail below in answer to RAI 3, STPNOC believes that annual expense for an RPV Head Storage Facility (RPVH SF) would be in the range of $5,000-10,000 per year. As reflected in Line Item 3b1.1.13 in the Unit 2 decommissioning cost estimates in the 2008 TLG Study, the estimated cost to decommission the RPVH SF is $94,000. This item is highlighted on the relevant page provided in Attachment 1 (Appendix C, Page 21 of 23).

2. ***STPNOC stated that the purpose of the exemption request is to permit the use of the decommissioning trust funds, not to exceed $20.0 million per unit, for the prompt disposal of certain major radioactive components (MRCs). Please provide a detailed cost breakdown of the projected cost of decommissioning MRCs, up to $20.0 million per unit, including the type and number of components that would be***

disposed. If the costs exceed $20.0 million, provide details of how STPNOC will fund any additional costs.

The MRC disposal project involves the disposal of eight steam generators and two reactor pressure vessel heads, as well as demolition and removal of the steam generator mausoleum. The requested authorization to withdraw up to $20 million per unit is based upon proposals for this work that STPNOC received from Energy*Solutions*, LLC. A copy of these proposals is provided as Attachment 3, which is marked as proprietary and confidential. STPNOC requests that these documents be withheld from public disclosure pursuant to 10 CFR 2.390, as supported by the Affidavit of James J. Sheppard.

As reflected in Line Items 2a.1.1.6 in the Unit 1 and Unit 2 decommissioning cost estimates in the 2008 TLG Study, the estimated cost to decommission the steam generators is $14.3 million per unit. These items are highlighted on the relevant pages provided in Attachment 1 (Appendix C, Pages 4 and 15 of 23). As reflected in Line Items 2b.2.1 in the Unit 1 and Unit 2 decommissioning cost estimates in the 2008 TLG Study, the estimated cost to decommission the "Spare RX closure head[s]" (assuming that they remain on site) is $1.3 million per unit. These items are highlighted on the relevant pages provided in Attachment 1 (Appendix C, Pages 7 and 18 of 23). Thus, the current TLG estimate for disposal of the steam generators and RPV heads is $31.2 million, not including $329,000 for the demolition of the steam generator mausoleum discussed further in the response to RAI 3 below.

The current Energy*Solutions* proposal exceeds this new TLG estimate, but not substantially. More importantly, the Energy*Solutions* proposal for steam generator disposal is more than 15% lower than TLG's 2004 estimate for the disposal of these eight steam generators, without taking into account inflation from 2004 to 2008. Also, the variation in price estimates reflects current favorable changes in market conditions, which suggests that the current opportunity for disposal is desirable as compared with other times in the last decade or more.

The Energy*Solutions* proposals are for fixed price contracts, and STPNOC therefore does not anticipate the possibility of costs exceeding the amount up to $20 million per unit authorized for withdrawal, which includes an approximately 20% margin for costs exceeding the expected costs. If unexpected costs are incurred that exceed these amounts, STPNOC's owners would fund those costs through STPNOC operating or capital budgets.

3. ***The licensee stated that STP currently has eight steam generators currently being stored on site resulting from the 2000 and 2002 steam generators' replacements. Please describe in detail the $10,000.00 per year annual costs, and how these steam generators are currently being stored on site. The submittal also stated that STPNOC constructed a separate facility to store these steam generators; please provide a description and the cost of this storage facility. In addition, provide an estimate of the additional annual cost to store the MRCs as a result of replacement of the vessel heads during 2009 and 2010 outages, if the MRCs are not immediately sent for disposal.***

The eight steam generators currently maintained at the STPNOC site are stored in a specially constructed mausoleum or OSG SF. This OSG SF is currently located outside the protected area for STP Units 1 & 2, but it would be within the site protected area for the proposed new STP Units 3 & 4. The OSG SF was constructed in 1999-2000 at a cost of approximately $3.076 million.

Annual maintenance costs for the mausoleum are for quarterly surveys, which are estimated at 40 hours per year, five hours each for two Health Physics Technicians four times per year, at a cost of $60 per hour. Supervisor review and reporting is an additional estimated four hours per year at $65 per hour. This results in an annual cost of $2,660. In addition, STPNOC anticipates that there may be need for occasional repairs or replacements associated with the facility. For example, within the last few years a hurricane caused damage to the roof of the SG Facility, which had to be replaced. In this prior instance, the replacement was covered by a contractor's warranty. However, the warranty has now expired, and any future such replacement estimated at $150,000 would be paid by STPNOC. Therefore, over the remaining life of the SG Facility, which is assumed to be at least 20 years, STPNOC projects that an annualized average cost of $7,500 per year for repairs and replacements can reasonably be expected.

In addition, STPNOC anticipates that it will incur increased security costs for the OSG SF, if it is not removed from the site before the area around this facility is made part of the STP protected area with the development of STP Units 3 & 4. Storage facilities would not require security protection, because they are not safety-related structures, systems, or components. However, increased security costs are expected for the OSG SF and RPVH SF, because they will be inside the protected area, requiring security lighting and periodic checks by security officers 365 days per year, on both days and nights. Because the buildings create obstructions, as opposed to open land with clear sight lines, STPNOC estimates that the increased security cost will be one-man-year per year (2080 hours per year), or $52,000, until the OSG SF and RPVH SF are decommissioned and removed from the site. In addition, the buildings likely will cause the need for security fences, lighting and camera coverage, which will increase the complexity of the required security coverage. However, no reliable estimate of these costs is presently available.

As reflected in Line Item 3b1.1.15 in the Unit 2 decommissioning cost estimates in the 2008 TLG Study, the estimated cost to decommission the OSG SF mausoleum is $329,000. This item is highlighted on the relevant page provided in Attachment 1 (Appendix C, Page 21 of 23).

If the RPV heads are not disposed off-site, they will need to be stored in a newly constructed mausoleum because there is no adequate additional space to store the RPV heads in the OSG SF. The costs associated with the RPVH SF are discussed above in the response to RAI 1.

4. ***STPNOC stated that the decommissioning trust balances as of December 31, 2006, totaled $364.9 million for Unit 1 and $445.8 million for Unit 2. This is the amount that STP submitted to the NRC for compliance with 10 CFR 50.75(f) to demonstrate that STP exceeded the NRC minimum requirements for radiological decommissioning. In addition, STP stated that the decommissioning site-specific***

cost estimates included not only radiological cleanup required by NRC, but the costs of dismantling the facilities and restoring the site, as well as the cost for storage and monitoring the spent fuel until the U.S. Department of Energy takes custody of the fuel. STPNOC needs to identify the source of the funds to support these additional non-radiological activities.

STPNOC's owners expect that their current trust fund balances together with future collections will fund all of the activities necessary for decommissioning STP Units 1 & 2, including basic radiological decommissioning, spent fuel management and site restoration activities. The site-specific decommissioning cost estimates for STP Units 1 & 2 have included estimates for all of these expected costs, and the owners have been funding their trust funds accordingly. In addition, the Public Utility Commission of Texas (PUCT) has approved collections from retail electric customers to fund these activities. In some cases, the STPNOC owners have not maintained separate subaccounts to specifically track the funds being collected to fund decommissioning activities relating to spent fuel management, *i.e.*, other than the basic radiological costs specified in 10 CFR 50.75(b) & (c). For example, the City Public Service Board of San Antonio (CPS) has maintained separate subaccounts for spent fuel management costs relating to its 28% legacy interest in STP Units 1 & 2, but it has not maintained separate subaccounts for its 12% interest in STP Units 1 & 2 that was acquired in 2005 from AEP Texas Central Company (legacy AEP interest).

The STPNOC owners that are subject to the jurisdiction of the PUCT (NRG Energy for its 44% interest in STP Units 1 & 2,[1] and CPS for its 12% legacy AEP interest) expect to seek PUCT authorization in 2008 to create and maintain specific subaccounts for the spent fuel management costs that have been collected to date, as well as for the remaining funds that are to be collected. Based upon nuclear decommissioning trust fund (NDT) balances as of 12/31/2007, Tables 1 and 2 below set forth the NDT balances for each unit and for each of the owners, as well as the NRC formula amount and site-specific cost estimate for each unit and for each of the owners. The Balance breakdown between "Basic & Site Restoration" and "Spent Nuclear Fuel Management" is a projection of the balance that would be allocated based upon the 2008 TLG Study.

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[1] NRG Energy owns 30.8% interests in STP Units 1 & 2 that were formerly owned by Houston Lighting & Power Company and 13.2% interests that were formerly owned by AEP Texas Central Company.

Table 1

Ownership (Unit 1)	*NRC Formula*	*Balance (Total)*	*Balance (Basic + Site)*	*Balance (SNF Mgmt.)*	*TLG (Basic + Site)*	*TLG (SNF Mgmt.)*	*TLG (Total)*
Total	375,884.0	391,626.0	284,001.3	107,624.7	509,082.0	192,921.0	702,003.0
NRG (30.8%)	115,772.3	121,955.0	88,439.9	33,515.1	156,797.3	59,419.7	216,216.9
NRG (13.2%)	49,616.7	47,135.9	34,182.2	12,953.7	67,198.8	25,465.6	92,664.4
CPS (28%)	105,247.5	124,652.2	90,395.9	34,256.3	142,543.0	54,017.9	196,560.8
CPS (12%)	45,106.1	44,922.2	32,576.9	12,345.3	61,089.8	23,150.5	84,240.4
Austin[2] (16%)	60,141.4	52,960.7	38,406.3	14,554.4	81,453.1	30,867.4	112,320.5

Table 2

Ownership (Unit 2)	*NRC Formula*	*Balance (Total)*	*Balance (Basic + Site)*	*Balance (SNF Mgmt.)*	*TLG (Basic + Site)*	*TLG (SNF Mgmt.)*	*TLG (Total)*
Total	375,884.0	476,863.7	360,789.0	116,074.7	590,166.0	189,871.0	780,037.0
NRG (30.8%)	115,772.3	155,857.9	117,920.1	37,937.8	181,771.1	58,480.3	240,251.4
NRG (13.2%)	49,616.7	57,256.4	43,319.5	13,936.9	77,901.9	25,063.0	102,964.9
CPS (28%)	105,247.5	152,352.7	115,268.1	37,084.6[3]	165,246.5	53,163.9	218,410.4
CPS (12%)	45,106.1	46,482.3	35,167.9	11,314.4	70,819.9	22,784.5	93,604.4
Austin[4] (16%)	60,141.4	64,914.4	49,113.4	15,801.0	94,426.6	30,379.4	124,805.9

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2 NDT Balance for Austin is based upon 12/31/2006.

3 CPS's current subaccount of $5.54 million is being reevaluated to align with the latest cost estimate.

4 NDT Balance for Austin is based upon 12/31/2006.

The comparison based upon NRC's current formula amount shows that the STP trust funds are robustly funded, even without taking credit for future earnings and ongoing contributions. However, by just taking credit for a 2% real rate of return on earnings through the remaining life of the current operating licenses, it can be seen that, even when excluding the portion of the existing trust fund balances allocable to spent fuel management, the remaining balances for each owner and each owner's share for each unit exceed the NRC minimum. This is reflected in Table 3 and Table 4, which provide the discounted value of the of the NRC minimum amount that would be required to be funded in current dollars, when a 2% real rate of return for earnings is taken into account.

The analysis reflected in Tables 3 and 4 shows that, even excluding the percentage of the balances allocable to spent fuel management, the remaining funds for each owner's share of each unit are sufficient to satisfy NRC's minimum decommissioning funding assurance requirements, even without taking into account that the owners continue to make contributions to their trust funds to assure that funding will be sufficient to meet the total site-specific decommissioning cost estimate. For Unit 1, the current total balance exceeds the NRC required minimum amount by more than $40 million, and for Unit 2, by more than $120 million.

Table 3

(Unit 1)	*NRC Formula*	*Balance (Total)*	*Balance (Basic + Site)*	*Balance (SNF Mgmt.)*
Total	237,774.8	391,626.0	284,001.3	107,624.7
NRG (30.8%)	73,234.6	121,955.0	88,439.9	33,515.1
NRG (13.2%)	31,386.3	47,135.9	34,182.2	12,953.7
CPS (28%)	66,576.9	124,652.2	90,395.9	34,256.3
CPS (12%)	28,533.0	44,922.2	32,576.9	12,345.3
Austin[5] (16%)	38,044.0	52,960.7	38,406.3	14,554.4

Table 4

Unit 2	*NRC Formula*	*Balance (Total)*	*Balance (Basic + Site)*	*Balance (SNF Mgmt.)*
Total	231572.6	476,863.7	360,789.0	116,074.7
NRG (30.8%)	71,324.4	155,857.9	117,920.1	37,937.8
NRG (13.2%)	30,567.6	57,256.4	43,319.5	13,936.9
CPS (28%)	64,840.3	152,352.7	115,268.1	37,084.6[6]
CPS (12%)	27,788.7	46,482.3	35,167.9	11,314.4
Austin[7] (16%)	37,051.6	64,914.4	49,113.4	15,801.0

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5 NDT Balance for Austin is based upon 12/31/2006.

6 CPS's current subaccount of $5.54 million is being reevaluated to align with the latest cost estimate.

7 NDT Balance for Austin is based upon 12/31/2006.

ATTACHMENTS:

1. Selected Pages from 2008 TLG Study (non-proprietary)
2. Project Evaluation and Approval (proprietary)
3. Energy*Solutions* Proposals (proprietary)

ATTACHMENT 1

SELECTED PAGES FROM 2008 TLG STUDY

TABLE 6.1
COST SUMMARY
DECOMMISSIONING COST ELEMENTS
(thousands of 2007 dollars)

Cost Element	Unit 1	Unit 2	Total	Percentage
Decontamination	14,628	14,973	29,602	2.0
Removal	102,281	134,827	237,108	16.0
Packaging	18,817	18,814	37,631	2.5
Transportation	11,544	11,511	23,055	1.6
Waste Disposal	73,513	73,293	146,806	9.9
Off-site Waste Processing	31,393	30,623	62,015	4.2
Program Management [1]	218,590	272,828	491,418	33.2
Severance	10,587	14,988	25,575	1.7
Spent Fuel Management (direct costs) [2]	156,773	152,003	308,776	20.8
Spent fuel pool isolation	10,720	7,147	17,866	1.2
Insurance and Regulatory Fees	17,836	16,891	34,727	2.3
Energy	10,455	10,465	20,920	1.4
Characterization and Licensing Surveys	9,879	8,056	17,935	1.2
Survey & Release of Scrap Metal	2,003	2,078	4,081	0.3
County Taxes	6,892	5,453	12,344	0.8
Miscellaneous Equipment	6,092	6,088	12,179	0.8
Total [3]	702,003	780,037	1,482,039	100.0

Cost Element	Unit 1	Unit 2	Total	Percentage
License Termination	462,762	508,903	971,665	65.6
Spent Fuel Management	192,921	189,871	382,792	25.8
Site Restoration	46,319	81,263	127,582	8.6
Total [3]	702,003	780,037	1,482,039	100.0

[1] Includes engineering and security costs
[2] Excludes program management costs (staffing) but includes capital expenditures for ISFSI construction, costs for spent fuel loading/packaging costs/spent fuel pool O&M and EP fees
[3] Columns may not add due to rounding

Table C-1
South Texas Project Electric Generating Station, Unit 1
DECON Decommissioning Cost Estimate
(thousands of 2007 dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
1b.2	Subtotal Period 1b Additional Costs	-	-	-	-	-	-	11,787	2,138	13,924	13,924	-	-	-	-	-	-	-	-	-	-
Period 1b Collateral Costs																					
1b.3.1	Decon equipment	945	-	-	-	-	-	-	142	1,087	1,087	-	-	-	-	-	-	-	-	-	-
1b.3.2	DOC staff relocation expenses	-	-	-	-	-	-	829	124	953	953	-	-	-	-	-	-	-	-	-	-
1b.3.3	Process liquid waste	72	-	84	273	-	1,090	-	358	1,878	1,878	-	-	-	479	852	-	-	123,248	259	-
1b.3.4	Small tool allowance	-	2	-	-	-	-	-	0	2	2	-	-	-	-	-	-	-	-	-	-
1b.3.5	Pipe cutting equipment	-	957	-	-	-	-	-	143	1,100	1,100	-	-	-	-	-	-	-	-	-	-
1b.3.6	Decon rig	1,243	-	-	-	-	-	-	186	1,430	1,430	-	-	-	-	-	-	-	-	-	-
1b.3.7	Spent Fuel Capital and Transfer	-	-	-	-	-	-	8,384	1,258	9,642	-	9,642	-	-	-	-	-	-	-	-	-
1b.3.8	Matagorda County Taxes and Fees	-	-	-	-	-	-	667	-	667	667	-	-	-	-	-	-	-	-	-	-
1b.3.9	Matagorda County Hospital District Taxes and Fe	-	-	-	-	-	-	281	-	281	281	-	-	-	-	-	-	-	-	-	-
1b.3	Subtotal Period 1b Collateral Costs	2,260	958	84	273	-	1,090	10,161	2,212	17,038	7,396	9,642	-	-	479	852	-	-	123,248	259	-
Period 1b Period-Dependent Costs																					
1b.4.1	Decon supplies	29	-	-	-	-	-	-	7	37	37	-	-	-	-	-	-	-	-	-	-
1b.4.2	Insurance	-	-	-	-	-	-	664	66	730	730	-	-	-	-	-	-	-	-	-	-
1b.4.3	Health physics supplies	-	282	-	-	-	-	-	71	353	353	-	-	-	-	-	-	-	-	-	-
1b.4.4	Heavy equipment rental	-	212	-	-	-	-	-	32	244	244	-	-	-	-	-	-	-	-	-	-
1b.4.5	Disposal of DAW generated	-	-	10	2	-	26	-	8	45	45	-	-	-	366	-	-	-	7,320	12	-
1b.4.6	Plant energy budget	-	-	-	-	-	-	1,401	210	1,611	1,611	-	-	-	-	-	-	-	-	-	-
1b.4.7	NRC Fees	-	-	-	-	-	-	129	13	142	142	-	-	-	-	-	-	-	-	-	-
1b.4.8	Emergency Planning Fees	-	-	-	-	-	-	139	14	153	-	153	-	-	-	-	-	-	-	-	-
1b.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	507	76	582	-	582	-	-	-	-	-	-	-	-	-
1b.4.10	ISFSI Operating Costs	-	-	-	-	-	-	32	5	36	-	36	-	-	-	-	-	-	-	-	-
1b.4.11	Security Staff Cost	-	-	-	-	-	-	428	64	492	492	-	-	-	-	-	-	-	-	-	13,743
1b.4.12	DOC Staff Cost	-	-	-	-	-	-	3,990	599	4,589	4,589	-	-	-	-	-	-	-	-	-	64,486
1b.4.13	Utility Staff Cost	-	-	-	-	-	-	11,553	1,733	13,286	13,286	-	-	-	-	-	-	-	-	-	223,057
1b.4	Subtotal Period 1b Period-Dependent Costs	29	494	10	2	-	26	18,843	2,897	22,301	21,529	772	-	-	366	-	-	-	7,320	12	301,286
1b.0	TOTAL PERIOD 1b COST	2,896	1,452	94	275	-	1,116	43,429	7,946	57,209	46,224	10,414	571	-	845	852	-	-	130,568	1,338	334,529
PERIOD 1 TOTALS		2,896	2,367	110	279	-	1,159	100,533	16,178	123,522	92,154	30,385	983	-	1,463	852	-	-	142,927	1,359	873,396
PERIOD 2a - Large Component Removal																					
Period 2a Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
2a.1.1.1	*Reactor Coolant Piping*	144	151	23	32	-	312	-	195	857	857	-	-	-	1,185	-	-	-	143,269	8,530	-
2a.1.1.2	Pressurizer Relief Tank	21	18	7	10	-	88	-	39	183	183	-	-	-	365	-	-	-	40,513	1,189	-
2a.1.1.3	Reactor Coolant Pumps & Motors	71	58	42	59	128	1,428	-	439	2,226	2,226	-	-	443	5,712	-	-	-	967,806	4,074	-
2a.1.1.4	Pressurizer	24	34	328	517	-	544	-	267	1,713	1,713	-	-	-	2,175	-	-	-	240,508	2,341	-
2a.1.1.5	Steam Generators	281	2,901	2,534	2,016	2,934	5,554	-	3,250	19,472	19,472	-	-	51,348	22,217	-	-	-	4,500,407	23,235	2,050
2a.1.1.6	Retired Steam Generator Units	-	-	1,716	1,972	2,934	5,421	-	2,263	14,306	14,306	-	-	51,348	21,685	-	-	-	4,239,824	10,800	1,425
2a.1.1.7	CRDMs/ICIs/Service Structure Removal	96	57	185	57	-	193	-	137	726	726	-	-	-	3,936	-	-	-	88,569	4,400	-
2a.1.1.8	Reactor Vessel Internals	74	1,923	6,447	694	-	6,919	212	6,756	23,025	23,025	-	-	-	1,377	412	861	-	314,544	28,867	1,287
2a.1.1.9	Reactor Vessel	52	3,724	1,359	398	-	7,069	212	6,824	19,638	19,638	-	-	-	7,750	2,128	-	-	1,069,368	28,867	1,287
2a.1.1	Totals	763	8,867	12,641	5,754	5,997	27,529	424	20,171	82,146	82,146	-	-	103,139	66,402	2,541	861	-	11,604,810	112,302	6,048
Removal of Major Equipment																					
2a.1.2	Main Turbine/Generator	-	102	-	-	-	-	-	15	117	-	-	117	-	-	-	-	-	-	3,298	-
2a.1.3	Main Condensers	-	534	-	-	-	-	-	80	615	-	-	615	-	-	-	-	-	-	16,323	-
Cascading Costs from Clean Building Demolition																					
2a.1.4.1	Reactor	-	924	-	-	-	-	-	139	1,062	1,062	-	-	-	-	-	-	-	-	13,446	-
2a.1.4.2	Mechanical & Electrical Auxiliary	-	509	-	-	-	-	-	76	586	586	-	-	-	-	-	-	-	-	8,223	-
2a.1.4.3	Fuel Handling	-	252	-	-	-	-	-	38	290	290	-	-	-	-	-	-	-	-	3,461	-

Table C-1
South Texas Project Electric Generating Station, Unit 1
DECON Decommissioning Cost Estimate
(thousands of 2007 dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
2b.1.1.39	Nonradioactive Dms & Smps (DR)	-	83	-	-	-	-	-	12	96	-	-	96	-	-	-	-	-	-	2,932	-
2b.1.1.40	Nonradioactive Dms & Smps (DR) RCA	-	256	31	40	222	244	-	167	960	960	-	-	2,971	1,249	-	-	-	232,693	6,870	-
2b.1.1.41	Open Loop Auxiliary Cooling (OC)	-	323	-	-	-	-	-	48	371	-	-	371	-	-	-	-	-	-	11,419	-
2b.1.1.42	Radioactive Vents & Drains (ED)	-	530	35	40	130	307	-	238	1,280	1,280	-	-	1,734	1,569	-	-	-	211,210	15,149	-
2b.1.1.43	Reactor Head Degassing (RD)	-	44	4	5	32	30	-	25	140	140	-	-	426	172	-	-	-	31,034	1,330	-
2b.1.1.44	Reactor Makeup Water (RM)	-	208	12	20	238	42	-	102	622	622	-	-	3,181	237	-	-	-	148,597	6,436	-
2b.1.1.45	Residual Heat Removal (RH)	310	201	98	93	190	783	-	454	2,131	2,131	-	-	2,548	4,008	-	-	-	462,821	7,567	-
2b.1.1.46	Safety Injection (SI)	-	746	200	219	1,081	1,447	-	763	4,456	4,456	-	-	14,465	7,709	-	-	-	1,251,132	23,305	-
2b.1.1.47	Service Air (SA)	-	76	-	-	-	-	-	11	88	-	-	88	-	-	-	-	-	-	2,701	-
2b.1.1.48	Service Water (TW)	-	14	-	-	-	-	-	2	16	-	-	16	-	-	-	-	-	-	493	-
2b.1.1.49	Sodium Hypochlorite (SH)	-	13	-	-	-	-	-	2	15	-	-	15	-	-	-	-	-	-	438	-
2b.1.1.50	Standby DG Fuel Oil Strg & Trnsfr (DO)	-	37	-	-	-	-	-	6	42	-	-	42	-	-	-	-	-	-	1,200	-
2b.1.1.51	Standby Diesel Gen Starting Air (SD)	-	17	-	-	-	-	-	2	19	-	-	19	-	-	-	-	-	-	557	-
2b.1.1.52	Standby Diesel Generator (DG)	-	121	-	-	-	-	-	18	139	-	-	139	-	-	-	-	-	-	4,148	-
2b.1.1.53	Standby Diesel Generator Bldg HVAC (HG)	-	50	-	-	-	-	-	7	57	-	-	57	-	-	-	-	-	-	1,806	-
2b.1.1.54	Standby Diesel Generator Lube Oil (LU)	-	7	-	-	-	-	-	1	8	-	-	8	-	-	-	-	-	-	242	-
2b.1.1.55	Standby Diesel Jacket Water (JW)	-	5	-	-	-	-	-	1	6	-	-	6	-	-	-	-	-	-	174	-
2b.1.1.56	Turbine Generator Building (XT)	-	25	-	-	-	-	-	4	28	-	-	28	-	-	-	-	-	-	785	-
2b.1.1.57	Turbine Generator Building HVAC (HT)	-	176	-	-	-	-	-	26	203	-	-	203	-	-	-	-	-	-	6,465	-
2b.1.1.58	Turbine Gland Seal (GS)	-	22	-	-	-	-	-	3	25	-	-	25	-	-	-	-	-	-	746	-
2b.1.1	Totals	1,708	12,897	1,054	1,511	14,433	5,651	-	7,718	44,973	41,871	-	3,102	193,155	30,164	-	-	-	10,436,170	414,401	-
2b.1.2	Scaffolding in support of decommissioning	-	1,553	47	15	185	27	-	430	2,256	2,256	-	-	2,231	139	-	-	-	112,845	55,965	-
Decontamination of Site Buildings																					
2b.1.3.1	Reactor	899	786	146	187	682	752	-	979	4,430	4,430	-	-	9,125	6,629	-	-	-	995,610	48,143	-
2b.1.3.2	Mechanical & Electrical Auxiliary	882	476	107	142	333	266	-	709	2,916	2,916	-	-	4,455	5,025	-	-	-	677,827	37,395	-
2b.1.3	Totals	1,781	1,262	253	329	1,015	1,018	-	1,688	7,346	7,346	-	-	13,580	11,654	-	-	-	1,673,437	85,538	-
2b.1	Subtotal Period 2b Activity Costs	3,489	15,712	1,354	1,855	15,633	6,696	-	9,835	54,575	51,473	-	3,102	208,966	41,956	-	-	-	12,222,450	555,904	-
Period 2b Additional Costs																					
2b.2.1	Spare RX closure head	-	-	188	54	-	795	30	230	1,298	1,298	-	-	-	1,949	-	-	-	201,821	2,160	249
2b.2	Subtotal Period 2b Additional Costs	-	-	188	54	-	795	30	230	1,298	1,298	-	-	-	1,949	-	-	-	201,821	2,160	249
Period 2b Collateral Costs																					
2b.3.1	Process liquid waste	351	-	267	868	-	2,840	-	1,043	5,370	5,370	-	-	-	4,250	-	-	-	350,377	829	-
2b.3.2	Small tool allowance	-	344	-	-	-	-	-	52	396	396	-	-	-	-	-	-	-	-	-	-
2b.3.3	Spent Fuel Capital and Transfer	-	-	-	-	-	-	26,585	3,988	30,573	-	30,573	-	-	-	-	-	-	-	-	-
2b.3.4	Survey & Release Scrap	-	-	-	-	-	-	561	84	645	645	-	-	-	-	-	-	-	-	-	-
2b.3.5	Matagorda County Taxes and Fees	-	-	-	-	-	-	416	-	416	416	-	-	-	-	-	-	-	-	-	-
2b.3.6	Matagorda County Hospital District Taxes and Fe	-	-	-	-	-	-	176	-	176	176	-	-	-	-	-	-	-	-	-	-
2b.3	Subtotal Period 2b Collateral Costs	351	344	267	868	-	2,840	27,738	5,166	37,576	7,003	30,573	-	-	4,250	-	-	-	350,377	829	-
Period 2b Period-Dependent Costs																					
2b.4.1	Decon supplies	1,438	-	-	-	-	-	-	359	1,797	1,797	-	-	-	-	-	-	-	-	-	-
2b.4.2	Insurance	-	-	-	-	-	-	1,244	124	1,368	1,368	-	-	-	-	-	-	-	-	-	-
2b.4.3	Health physics supplies	-	3,659	-	-	-	-	-	915	4,574	4,574	-	-	-	-	-	-	-	-	-	-
2b.4.4	Heavy equipment rental	-	5,102	-	-	-	-	-	765	5,868	5,868	-	-	-	-	-	-	-	-	-	-
2b.4.5	Disposal of DAW generated	-	-	216	44	-	564	-	169	993	993	-	-	-	8,055	-	-	-	161,103	272	-
2b.4.6	Plant energy budget	-	-	-	-	-	-	2,548	382	2,930	2,930	-	-	-	-	-	-	-	-	-	-
2b.4.7	NRC Fees	-	-	-	-	-	-	839	84	923	923	-	-	-	-	-	-	-	-	-	-
2b.4.8	Emergency Planning Fees	-	-	-	-	-	-	675	68	743	-	743	-	-	-	-	-	-	-	-	-
2b.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	2,456	368	2,824	-	2,824	-	-	-	-	-	-	-	-	-
2b.4.10	Radwaste Processing Equipment/Services	-	-	-	-	-	-	458	69	526	526	-	-	-	-	-	-	-	-	-	-
2b.4.11	ISFSI Operating Costs	-	-	-	-	-	-	153	23	177	-	177	-	-	-	-	-	-	-	-	-
2b.4.12	Security Staff Cost	-	-	-	-	-	-	2,035	305	2,341	2,341	-	-	-	-	-	-	-	-	-	65,353

Table C-2
South Texas Project Electric Generating Station, Unit 2
DECON Decommissioning Cost Estimate
(thousands of 2007 dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes: Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Period 1b Additional Costs																					
1b.2.1	Site Characterization	-	-	-	-	-	-	1,054	316	1,370	1,370	-	-	-	-	-	-	-	-	-	-
1b.2.2	Spent fuel pool isolation	-	-	-	-	-	-	6,214	932	7,147	7,147	-	-	-	-	-	-	-	-	-	-
1b.2	Subtotal Period 1b Additional Costs	-	-	-	-	-	-	7,268	1,248	8,517	8,517	-	-	-	-	-	-	-	-	-	-
Period 1b Collateral Costs																					
1b.3.1	Decon equipment	945	-	-	-	-	-	-	142	1,087	1,087	-	-	-	-	-	-	-	-	-	-
1b.3.2	DOC staff relocation expenses	-	-	-	-	-	-	829	124	953	953	-	-	-	-	-	-	-	-	-	-
1b.3.3	Process liquid waste	72	-	84	273	-	1,074	-	354	1,857	1,857	-	-	-	479	852	-	-	121,094	259	-
1b.3.4	Small tool allowance	-	2	-	-	-	-	-	0	2	2	-	-	-	-	-	-	-	-	-	-
1b.3.5	Pipe cutting equipment	-	957	-	-	-	-	-	143	1,100	1,100	-	-	-	-	-	-	-	-	-	-
1b.3.6	Decon rig	1,243	-	-	-	-	-	-	186	1,430	1,430	-	-	-	-	-	-	-	-	-	-
1b.3.7	Spent Fuel Capital and Transfer	-	-	-	-	-	-	7,755	1,163	8,918	-	8,918	-	-	-	-	-	-	-	-	-
1b.3.8	Matagorda County Taxes and Fees	-	-	-	-	-	-	422	-	422	422	-	-	-	-	-	-	-	-	-	-
1b.3.9	Matagorda County Hospital District Taxes and Fe	-	-	-	-	-	-	178	-	178	178	-	-	-	-	-	-	-	-	-	-
1b.3	Subtotal Period 1b Collateral Costs	2,260	958	84	273	-	1,074	9,183	2,113	15,946	7,028	8,918	-	-	479	852	-	-	121,094	259	-
Period 1b Period-Dependent Costs																					
1b.4.1	Decon supplies	29	-	-	-	-	-	-	7	37	37	-	-	-	-	-	-	-	-	-	-
1b.4.2	Insurance	-	-	-	-	-	-	664	66	730	730	-	-	-	-	-	-	-	-	-	-
1b.4.3	Health physics supplies	-	282	-	-	-	-	-	71	353	353	-	-	-	-	-	-	-	-	-	-
1b.4.4	Heavy equipment rental	-	212	-	-	-	-	-	32	244	244	-	-	-	-	-	-	-	-	-	-
1b.4.5	Disposal of DAW generated	-	-	10	2	-	26	-	8	45	45	-	-	-	366	-	-	-	7,320	12	-
1b.4.6	Plant energy budget	-	-	-	-	-	-	1,401	210	1,611	1,611	-	-	-	-	-	-	-	-	-	-
1b.4.7	NRC Fees	-	-	-	-	-	-	129	13	142	142	-	-	-	-	-	-	-	-	-	-
1b.4.8	Emergency Planning Fees	-	-	-	-	-	-	139	14	153	-	153	-	-	-	-	-	-	-	-	-
1b.4.9	Spent Fuel Pool O&M	-	-	-	-	-	-	507	76	582	-	582	-	-	-	-	-	-	-	-	-
1b.4.10	ISFSI Operating Costs	-	-	-	-	-	-	32	5	36	-	36	-	-	-	-	-	-	-	-	-
1b.4.11	Security Staff Cost	-	-	-	-	-	-	2,469	370	2,840	2,840	-	-	-	-	-	-	-	-	-	79,286
1b.4.12	DOC Staff Cost	-	-	-	-	-	-	3,990	599	4,589	4,589	-	-	-	-	-	-	-	-	-	64,486
1b.4.13	Utility Staff Cost	-	-	-	-	-	-	11,553	1,733	13,286	13,286	-	-	-	-	-	-	-	-	-	223,057
1b.4	Subtotal Period 1b Period-Dependent Costs	29	494	10	2	-	26	20,884	3,203	24,648	23,876	772	-	-	366	-	-	-	7,320	12	366,829
1b.0	TOTAL PERIOD 1b COST	2,900	1,453	94	275	-	1,099	38,465	7,040	51,325	41,391	9,690	244	-	845	852	-	-	128,414	1,338	381,057
PERIOD 1 TOTALS		2,900	2,367	110	279	-	1,143	94,760	15,254	116,813	87,645	28,747	421	-	1,463	852	-	-	140,773	1,359	1,007,051
PERIOD 2a - Large Component Removal																					
Period 2a Direct Decommissioning Activities																					
Nuclear Steam Supply System Removal																					
2a.1.1.1	Reactor Coolant Piping	153	161	23	32	-	312	-	202	883	883	-	-	-	1,185	-	-	-	143,269	8,530	-
2a.1.1.2	Pressurizer Relief Tank	22	19	7	10	-	88	-	40	187	187	-	-	-	365	-	-	-	40,513	1,189	-
2a.1.1.3	Reactor Coolant Pumps & Motors	71	58	42	59	128	1,428	-	439	2,226	2,226	-	-	443	5,712	-	-	-	967,806	4,074	-
2a.1.1.4	Pressurizer	24	34	328	517	-	544	-	267	1,713	1,713	-	-	-	2,175	-	-	-	240,508	2,341	-
2a.1.1.5	Steam Generators	298	2,901	2,534	2,016	2,934	5,554	-	3,259	19,497	19,497	-	-	51,348	22,217	-	-	-	4,500,407	23,235	2,050
2a.1.1.6	Retired Steam Generator Units	-	-	1,716	1,972	2,934	5,421	-	2,263	14,306	14,306	-	-	51,348	21,685	-	-	-	4,239,824	10,800	1,425
2a.1.1.7	CRDMs/ICIs/Service Structure Removal	102	63	185	57	-	193	-	142	741	741	-	-	-	3,936	-	-	-	88,569	4,400	-
2a.1.1.8	Reactor Vessel Internals	79	1,923	6,447	694	-	6,914	212	6,756	23,024	23,024	-	-	-	1,377	412	861	-	314,544	28,867	1,287
2a.1.1.9	Reactor Vessel	55	3,724	1,359	398	-	6,995	212	6,789	19,532	19,532	-	-	-	7,750	2,128	-	-	1,069,368	28,867	1,287
2a.1.1	Totals	803	8,884	12,641	5,754	5,997	27,449	424	20,156	82,108	82,108	-	-	103,139	66,402	2,541	861	-	11,604,810	112,302	6,048
Removal of Major Equipment																					
2a.1.2	Main Turbine/Generator	-	102	-	-	-	-	-	15	117	-	-	117	-	-	-	-	-	-	3,298	-
2a.1.3	Main Condensers	-	534	-	-	-	-	-	80	615	-	-	615	-	-	-	-	-	-	16,323	-

Table C-2
South Texas Project Electric Generating Station, Unit 2
DECON Decommissioning Cost Estimate
(thousands of 2007 dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Llc. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
Disposal of Plant Systems (continued)																					
2b.1.1.34	Main Steam (MS)	-	259	-	-	-	-	-	39	298	-	-	298	-	-	-	-	-	-	9,094	-
2b.1.1.35	Main Steam (MS) RCA	-	29	5	7	64	29	-	26	159	159	-	-	852	150	-	-	-	48,060	794	-
2b.1.1.36	Main Turbine & Lube Oil (LT/TM)	-	86	-	-	-	-	-	13	99	-	-	99	-	-	-	-	-	-	2,904	-
2b.1.1.37	Mechanical Auxiliary Bldg HVAC (HM) RCA	-	1,364	71	140	1,932	159	-	699	4,366	4,366	-	-	25,859	812	-	-	-	1,123,019	28,436	-
2b.1.1.38	Mechanical Auxiliary Building (XM)	-	161	2	5	71	4	-	53	296	296	-	-	944	21	-	-	-	40,236	4,385	-
2b.1.1.39	Miscellaneous Drains (MD)	-	40	-	-	-	-	-	6	45	-	-	45	-	-	-	-	-	-	1,376	-
2b.1.1.40	Miscellaneous HVAC (HZ)	-	111	-	-	-	-	-	17	127	-	-	127	-	-	-	-	-	-	3,966	-
2b.1.1.41	Miscellaneous HVAC (HZ) RCA	-	23	1	2	34	2	-	12	74	74	-	-	449	12	-	-	-	19,323	447	-
2b.1.1.42	Miscellaneous Reactor Coolant (RC)	21	204	49	57	139	465	-	212	1,148	1,148	-	-	1,854	2,422	-	-	-	288,607	6,654	-
2b.1.1.43	Miscellaneous Yard Areas & Bldgs (XY)	-	2,085	-	-	-	-	-	313	2,398	-	-	2,398	-	-	-	-	-	-	70,812	-
2b.1.1.44	Nonradioactive Drns & Smps (DR) RCA	-	300	34	43	228	269	-	186	1,059	1,059	-	-	3,053	1,375	-	-	-	247,284	7,508	-
2b.1.1.45	Nonradioactive Plumbing Drns & Smps (DR)	-	89	-	-	-	-	-	13	103	-	-	103	-	-	-	-	-	-	3,149	-
2b.1.1.46	Oily Waste (OW)	-	202	-	-	-	-	-	30	233	-	-	233	-	-	-	-	-	-	7,103	-
2b.1.1.47	Radioactive Vents & Drains (ED)	-	563	35	40	125	306	-	245	1,314	1,314	-	-	1,672	1,564	-	-	-	208,197	15,031	-
2b.1.1.48	Reactor Head Degassing (RD)	-	51	5	5	33	32	-	27	153	153	-	-	437	181	-	-	-	32,245	1,430	-
2b.1.1.49	Reactor Makeup Water (RM)	-	239	12	21	255	41	-	112	680	680	-	-	3,410	230	-	-	-	157,301	6,872	-
2b.1.1.50	Residual Heat Removal (RH)	310	200	92	89	187	745	-	442	2,064	2,064	-	-	2,501	3,810	-	-	-	443,218	7,000	-
2b.1.1.51	SG Sludge Lancing & Chem Cleaning (SL)	-	0	-	-	-	-	-	0	0	-	-	0	-	-	-	-	-	-	8	-
2b.1.1.52	Safety Injection (SI)	-	966	201	226	1,121	1,481	-	834	4,828	4,828	-	-	15,003	7,882	-	-	-	1,288,472	28,132	-
2b.1.1.53	Secondary Process Sampling (SS)	-	35	-	-	-	-	-	5	40	-	-	40	-	-	-	-	-	-	1,187	-
2b.1.1.54	Service Air (SA)	-	101	-	-	-	-	-	15	116	-	-	116	-	-	-	-	-	-	3,619	-
2b.1.1.55	Service Water (TW)	-	61	-	-	-	-	-	9	70	-	-	70	-	-	-	-	-	-	2,112	-
2b.1.1.56	Standby DG Fuel Oil Strg & Trnsfr (DO)	-	36	-	-	-	-	-	5	41	-	-	41	-	-	-	-	-	-	1,166	-
2b.1.1.57	Standby Diesel Gen Starting Air (SD)	-	16	-	-	-	-	-	2	18	-	-	18	-	-	-	-	-	-	534	-
2b.1.1.58	Standby Diesel Generator (DG)	-	111	-	-	-	-	-	17	128	-	-	128	-	-	-	-	-	-	3,794	-
2b.1.1.59	Standby Diesel Generator Bldg HVAC (HG)	-	50	-	-	-	-	-	7	57	-	-	57	-	-	-	-	-	-	1,815	-
2b.1.1.60	Standby Diesel Generator Lube Oil (LU)	-	4	-	-	-	-	-	1	4	-	-	4	-	-	-	-	-	-	124	-
2b.1.1.61	Standby Diesel Jacket Water (JW)	-	4	-	-	-	-	-	1	5	-	-	5	-	-	-	-	-	-	146	-
2b.1.1.62	Turbine Generator Building (XT)	-	105	-	-	-	-	-	16	121	-	-	121	-	-	-	-	-	-	3,516	-
2b.1.1.63	Turbine Generator Building HVAC (HT)	-	182	-	-	-	-	-	27	209	-	-	209	-	-	-	-	-	-	6,685	-
2b.1.1.64	Turbine Gland Seal (GS)	-	26	-	-	-	-	-	4	29	-	-	29	-	-	-	-	-	-	877	-
2b.1.1	Totals	1,707	16,957	962	1,317	11,396	5,649	-	7,883	45,870	38,685	-	7,185	152,507	30,154	-	-	-	8,784,640	528,631	-
2b.1.2	Scaffolding in support of decommissioning	-	1,691	47	15	185	27	-	464	2,428	2,428	-	-	2,231	139	-	-	-	112,845	55,966	-
Decontamination of Site Buildings																					
2b.1.3.1	Reactor	955	830	146	187	682	752	-	1,018	4,571	4,571	-	-	9,125	6,629	-	-	-	995,610	48,143	-
2b.1.3.2	Mechanical & Electrical Auxiliary	938	500	107	142	333	266	-	743	3,030	3,030	-	-	4,455	5,025	-	-	-	677,827	37,395	-
2b.1.3	Totals	1,894	1,330	253	329	1,015	1,018	-	1,761	7,600	7,600	-	-	13,580	11,654	-	-	-	1,673,437	85,538	-
2b.1	Subtotal Period 2b Activity Costs	3,600	19,978	1,262	1,660	12,595	6,694	-	10,108	55,898	48,713	-	7,185	168,318	41,946	-	-	-	10,570,920	670,135	-
Period 2b Additional Costs																					
2b.2.1	Spare RX closure head	-	-	188	54	-	795	30	230	1,298	1,298	-	-	-	1,949	-	-	-	201,821	2,160	249
2b.2	Subtotal Period 2b Additional Costs	-	-	188	54	-	795	30	230	1,298	1,298	-	-	-	1,949	-	-	-	201,821	2,160	249
Period 2b Collateral Costs																					
2b.3.1	Process liquid waste	358	-	267	866	-	2,733	-	1,019	5,242	5,242	-	-	-	4,243	-	-	-	336,451	827	-
2b.3.2	Small tool allowance	-	440	-	-	-	-	-	66	506	506	-	-	-	-	-	-	-	-	-	-
2b.3.3	Spent Fuel Capital and Transfer	-	-	-	-	-	-	21,948	3,292	25,240	-	25,240	-	-	-	-	-	-	-	-	-
2b.3.4	Survey & Release Scrap	-	-	-	-	-	-	577	87	664	664	-	-	-	-	-	-	-	-	-	-
2b.3.5	Matagorda County Taxes and Fees	-	-	-	-	-	-	304	-	304	304	-	-	-	-	-	-	-	-	-	-
2b.3.6	Matagorda County Hospital District Taxes and Fe	-	-	-	-	-	-	130	-	130	130	-	-	-	-	-	-	-	-	-	-
2b.3.7	Severance	-	-	-	-	-	-	316	47	363	363	-	-	-	-	-	-	-	-	-	-
2b.3	Subtotal Period 2b Collateral Costs	358	440	267	866	-	2,733	23,276	4,511	32,450	7,210	25,240	-	-	4,243	-	-	-	336,451	827	-

Table C-2
South Texas Project Electric Generating Station, Unit 2
DECON Decommissioning Cost Estimate
(thousands of 2007 dollars)

Activity Index	Activity Description	Decon Cost	Removal Cost	Packaging Costs	Transport Costs	Off-Site Processing Costs	LLRW Disposal Costs	Other Costs	Total Contingency	Total Costs	NRC Lic. Term. Costs	Spent Fuel Management Costs	Site Restoration Costs	Processed Volume Cu. Feet	Burial Volumes: Class A Cu. Feet	Class B Cu. Feet	Class C Cu. Feet	GTCC Cu. Feet	Burial / Processed Wt., Lbs.	Craft Manhours	Utility and Contractor Manhours
PERIOD 2 TOTALS		7,899	62,391	15,620	9,540	26,628	41,392	233,441	76,940	473,851	399,799	62,292	11,760	378,116	142,098	2,541	861	-	28,284,790	1,331,478	2,801,520
PERIOD 3b - Site Restoration																					
Period 3b Direct Decommissioning Activities																					
Demolition of Remaining Site Buildings																					
3b.1.1.1	Reactor	-	5,488	-	-	-	-	-	823	6,311	-	-	6,311	-	-	-	-	-	-	77,001	-
3b.1.1.2	Basins	-	81	-	-	-	-	-	12	94	-	-	94	-	-	-	-	-	-	1,476	-
3b.1.1.3	Circulating Water Intake & Discharge	-	2,380	-	-	-	-	-	357	2,736	-	-	2,736	-	-	-	-	-	-	43,105	-
3b.1.1.4	Diesel Generator	-	781	-	-	-	-	-	117	898	-	-	898	-	-	-	-	-	-	11,474	-
3b.1.1.5	Essential Cooling Pond/Intake/Discharge	-	618	-	-	-	-	-	93	711	-	-	711	-	-	-	-	-	-	12,244	-
3b.1.1.6	Isol Valve Cubicle & Aux Fdwtr Strg Tnk	-	684	-	-	-	-	-	103	786	-	-	786	-	-	-	-	-	-	11,329	-
3b.1.1.7	Maintenance Operations Facility	-	373	-	-	-	-	-	56	429	-	-	429	-	-	-	-	-	-	8,372	-
3b.1.1.8	Mechanical & Electrical Auxiliary	-	4,606	-	-	-	-	-	691	5,297	-	-	5,297	-	-	-	-	-	-	74,736	-
3b.1.1.9	Miscellaneous Slabs, Foundations & Pads	-	803	-	-	-	-	-	120	923	-	-	923	-	-	-	-	-	-	16,946	-
3b.1.1.10	Miscellaneous Yard Buildings	-	2,004	-	-	-	-	-	301	2,304	-	-	2,304	-	-	-	-	-	-	34,045	-
3b.1.1.11	Nuclear Support Center	-	535	-	-	-	-	-	80	615	-	-	615	-	-	-	-	-	-	12,272	-
3b.1.1.12	Nuclear Training Facility & Annex	-	301	-	-	-	-	-	45	346	-	-	346	-	-	-	-	-	-	7,275	-
3b.1.1.13	Reactor vessel head storage	-	81	-	-	-	-	-	12	94	-	-	94	-	-	-	-	-	-	1,633	-
3b.1.1.14	Sewage Treatment Plant	-	54	-	-	-	-	-	8	62	-	-	62	-	-	-	-	-	-	970	-
3b.1.1.15	Steam Generator Mausoleum	-	286	-	-	-	-	-	43	329	-	-	329	-	-	-	-	-	-	3,985	-
3b.1.1.16	Tank Pads & Foundations	-	106	-	-	-	-	-	16	121	-	-	121	-	-	-	-	-	-	2,203	-
3b.1.1.17	Transformer Pads	-	136	-	-	-	-	-	20	156	-	-	156	-	-	-	-	-	-	2,829	-
3b.1.1.18	Trenches & Culverts	-	1,739	-	-	-	-	-	261	2,000	-	-	2,000	-	-	-	-	-	-	26,320	-
3b.1.1.19	Turbine Generator	-	2,264	-	-	-	-	-	340	2,603	-	-	2,603	-	-	-	-	-	-	44,990	-
3b.1.1.20	Turbine Generator Pedestal	-	886	-	-	-	-	-	133	1,018	-	-	1,018	-	-	-	-	-	-	10,798	-
3b.1.1.21	Warehouses	-	3,022	-	-	-	-	-	453	3,475	-	-	3,475	-	-	-	-	-	-	45,676	-
3b.1.1.22	Yard Piping	-	361	-	-	-	-	-	54	415	-	-	415	-	-	-	-	-	-	3,030	-
3b.1.1.23	Fuel Handling	-	2,285	-	-	-	-	-	343	2,628	-	-	2,628	-	-	-	-	-	-	31,762	-
3b.1.1	Totals	-	29,870	-	-	-	-	-	4,481	34,351	-	-	34,351	-	-	-	-	-	-	484,471	-
Site Closeout Activities																					
3b.1.2	Remove Rubble	-	5,481	-	-	-	-	-	822	6,303	-	-	6,303	-	-	-	-	-	-	3,306	-
3b.1.3	Grade & landscape site	-	2,261	-	-	-	-	-	339	2,600	-	-	2,600	-	-	-	-	-	-	5,471	-
3b.1.4	Final report to NRC	-	-	-	-	-	-	53	8	61	61	-	-	-	-	-	-	-	-	-	668
3b.1	Subtotal Period 3b Activity Costs	-	37,612	-	-	-	-	53	5,650	43,315	61	-	43,254	-	-	-	-	-	-	493,248	668
Period 3b Additional Costs																					
3b.2.1	Intake Cofferdam	-	969	-	-	-	-	-	145	1,114	1,114	-	-	-	-	-	-	-	-	9,312	-
3b.2.2	Discharge Cofferdam	-	324	-	-	-	-	-	49	373	373	-	-	-	-	-	-	-	-	3,115	-
3b.2.3	Concrete Processing	-	1,470	-	5	-	-	-	221	1,695	1,695	-	-	-	-	-	-	-	-	7,478	-
3b.2	Subtotal Period 3b Additional Costs	-	2,762	-	5	-	-	-	415	3,182	3,182	-	-	-	-	-	-	-	-	19,905	-
Period 3b Collateral Costs																					
3b.3.1	Small tool allowance	-	335	-	-	-	-	-	50	386	-	-	386	-	-	-	-	-	-	-	-
3b.3.2	Spent Fuel Capital and Transfer	-	-	-	-	-	-	468	70	539	-	539	-	-	-	-	-	-	-	-	-
3b.3.3	Matagorda County Taxes and Fees	-	-	-	-	-	-	45	-	45	45	-	-	-	-	-	-	-	-	-	-
3b.3.4	Matagorda County Hospital District Taxes and Fe	-	-	-	-	-	-	45	-	45	45	-	-	-	-	-	-	-	-	-	-
3b.3.5	Severance	-	-	-	-	-	-	1,171	176	1,346	1,346	-	-	-	-	-	-	-	-	-	-
3b.3	Subtotal Period 3b Collateral Costs	-	335	-	-	-	-	1,730	296	2,361	1,437	539	386	-	-	-	-	-	-	-	-
Period 3b Period-Dependent Costs																					
3b.4.1	Insurance	-	-	-	-	-	-	796	80	875	-	875	-	-	-	-	-	-	-	-	-
3b.4.2	Heavy equipment rental	-	5,127	-	-	-	-	-	769	5,896	-	-	5,896	-	-	-	-	-	-	-	-
3b.4.3	Plant energy budget	-	-	-	-	-	-	251	38	288	0	86	202	-	-	-	-	-	-	-	-

ATTACHMENT 2

PROJECT EVALUATION AND APPROVAL

Proprietary & Confidential

Withhold from Public Disclosure Pursuant to 10 CFR 2.390

Non-Proprietary Version

Project Evaluation and Approval

Storage Facility for Reactor Vessel Head

CR: **07-1642-RV010N**

PIP:

Escalated

Total Probablistic Cost [redacted]

Status

Range: Total Project Cost		RISK ADJUSTMENT FORMULAS	
Pessimistic	[redacted]	HIGH	[redacted]
Optimistic		MEDIUM	
		LOW	

Core Shop Hours/Dollars $0

Estimator: Nagle
Date: 7-Mar-07
Type: Init
Engineer: J LeValley
Imp. Org. Unknown

Est. File # C:\Documents and Settings\levaljt\Local Settings\Temporary Internet Files\OLK2FA\[07-1642-RVStgFac010N.xls]Estimate

Detailed Probablistic Breakdown

Site Labor			Site Contracts			Material			
Design	Install	Support	Design	Install	Support	Engineered	Warehouse	Vendor Svcs	
[redacted]									Previous
									2006
									2007
									2008
									2009
									2010
									2011
									2012
									2013
									2014
									2015
									2016
									2017
									2018
									2019
									2020
									2021
									2022
									2023
									2024
									2025
									2026
									2027
$0	$0	$0	$0	$836,489	$157,361	$0	$403,187	$0	

Project Evaluation and Approval

Project Description. Storage Facility for Reactor Vessel Head
CR Number 07-1642-RV010N **PIP No#** 0

ESTIMATE ASSUMPTIONS

A	**Basis for estimate**	Construct long term storage facility for Reactor Vessel Head. Estimate based on commercial rates - no permitting, licensing included material rates from ENR publication indexes for 2007.
B	**Risk considerations**	Monitoring requirements, sumps, electrical commodities etc.
C	**Complexity**	Relatively simple construction - additional efforts for containing contamination
D	**Escalation factors**	[redacted]

Concurrence Signatures

Projects	Date Signed
PIP Supervisor	
Projects	
Field Engineer	
Project Manager	
Training	
Health Physic	
Procedures	
Material Obsolescence	
STP INSTALLATION	
MM/Steve Blossom/Ron Korczynski	
EM Rudy Stastny/Dave Thornton	
I&C Jeff Lovejoy/Tony Vajdos	
AOV/MOV Brent Heraly/EdMatejcech	

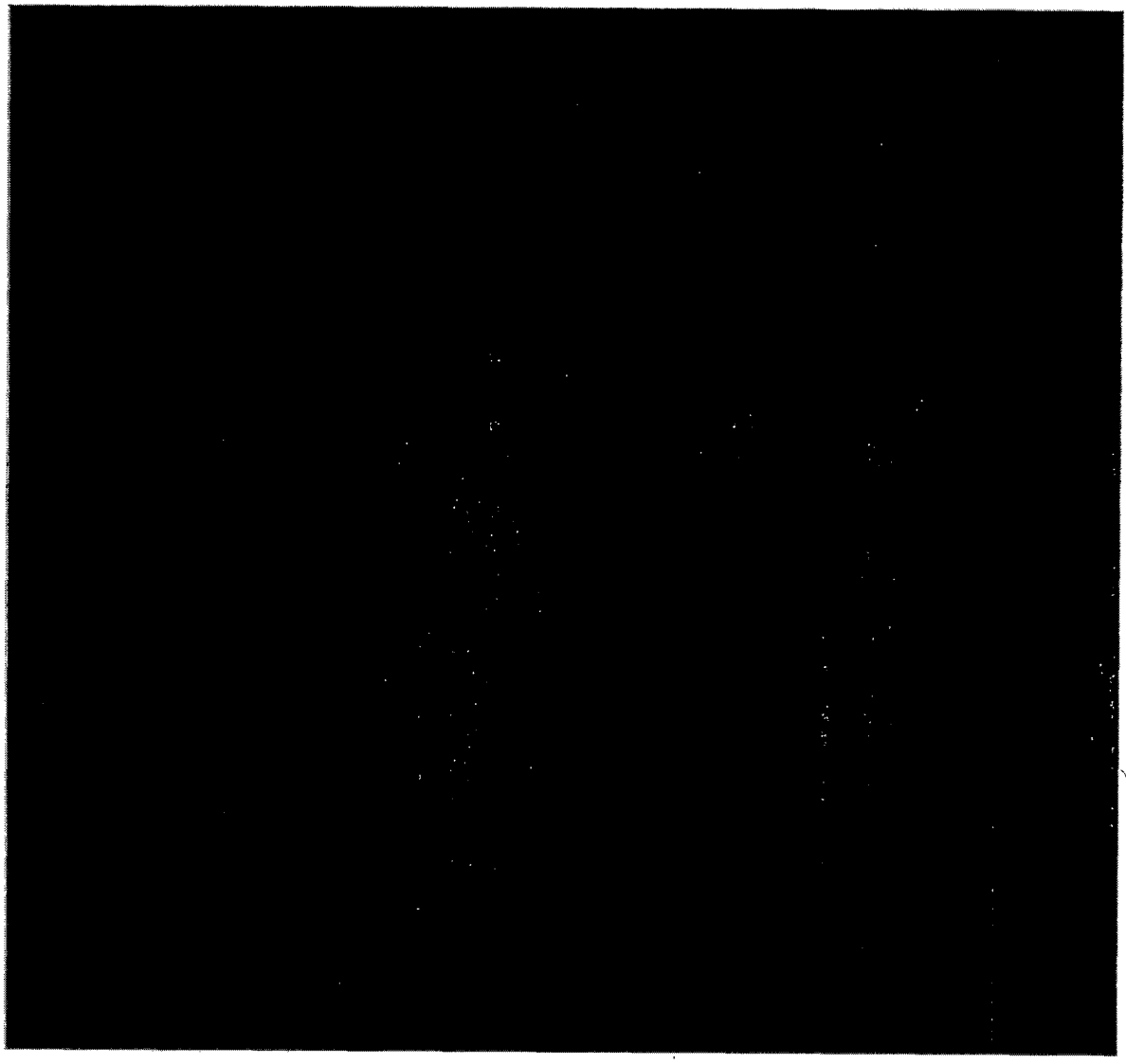
Projects	Unit1 2007	Unit 2 2007
Schedule Manhours	[redacted]	
Estimate Manhours		
Non Man Sup/		
Craft dollars		
Material/Rental dolla		
STP		
Schedule Manhours		
Estimate Manhours		
Craft dollars		

WORKSHEET

Desc	Type Information	Accuracy	Avg Accuracy	Rank	Score
SCOPE			[redacted]		
MATERIAL					
CONTRACTS					
Labor					

Project Evaluation and Approval

Project Description	Storage Facility for Reactor Vessel Head	CR No#	07-1642-RV010N
Project Requestor	J LeValley	PIP No#	0
Estimator	Nagle		

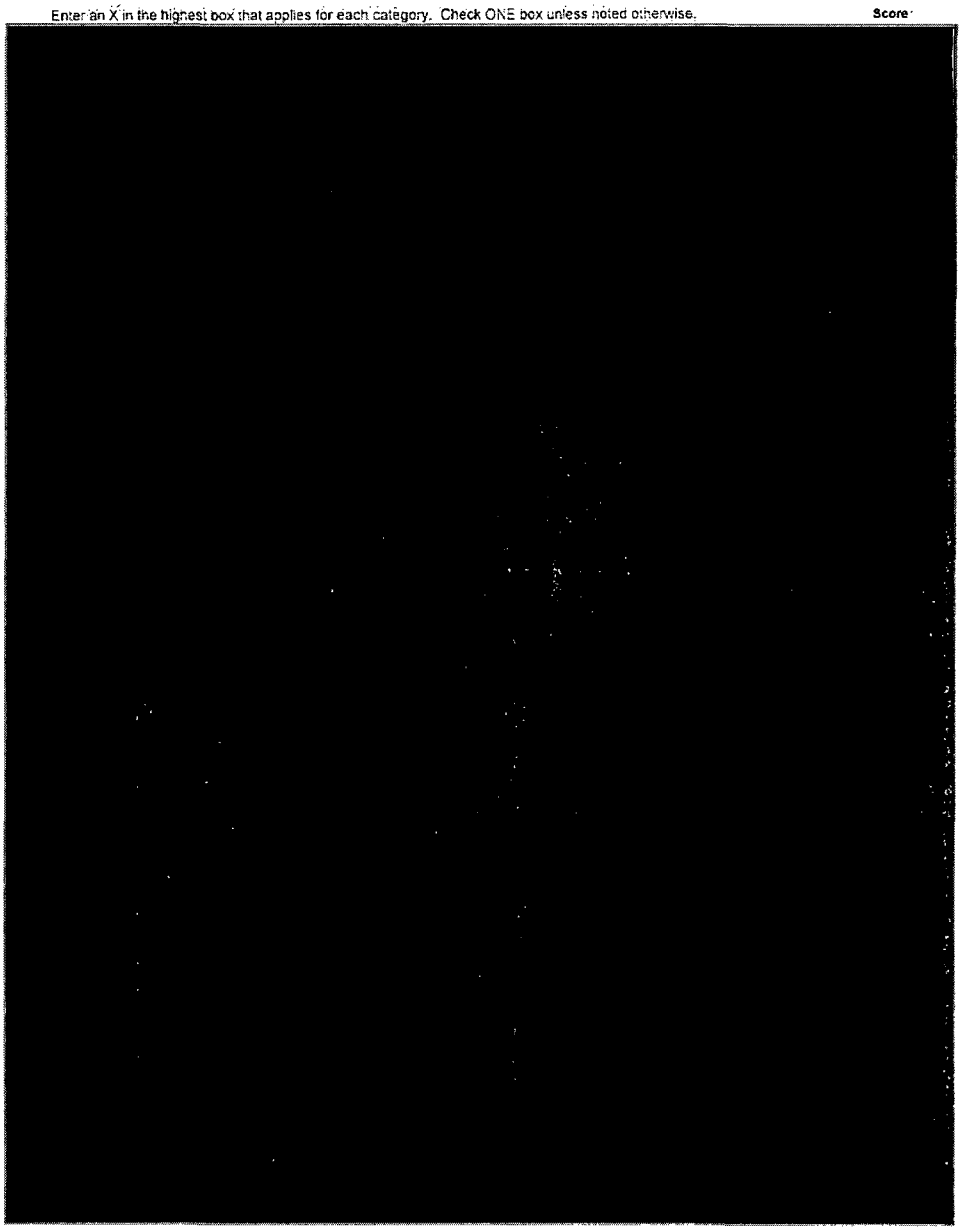


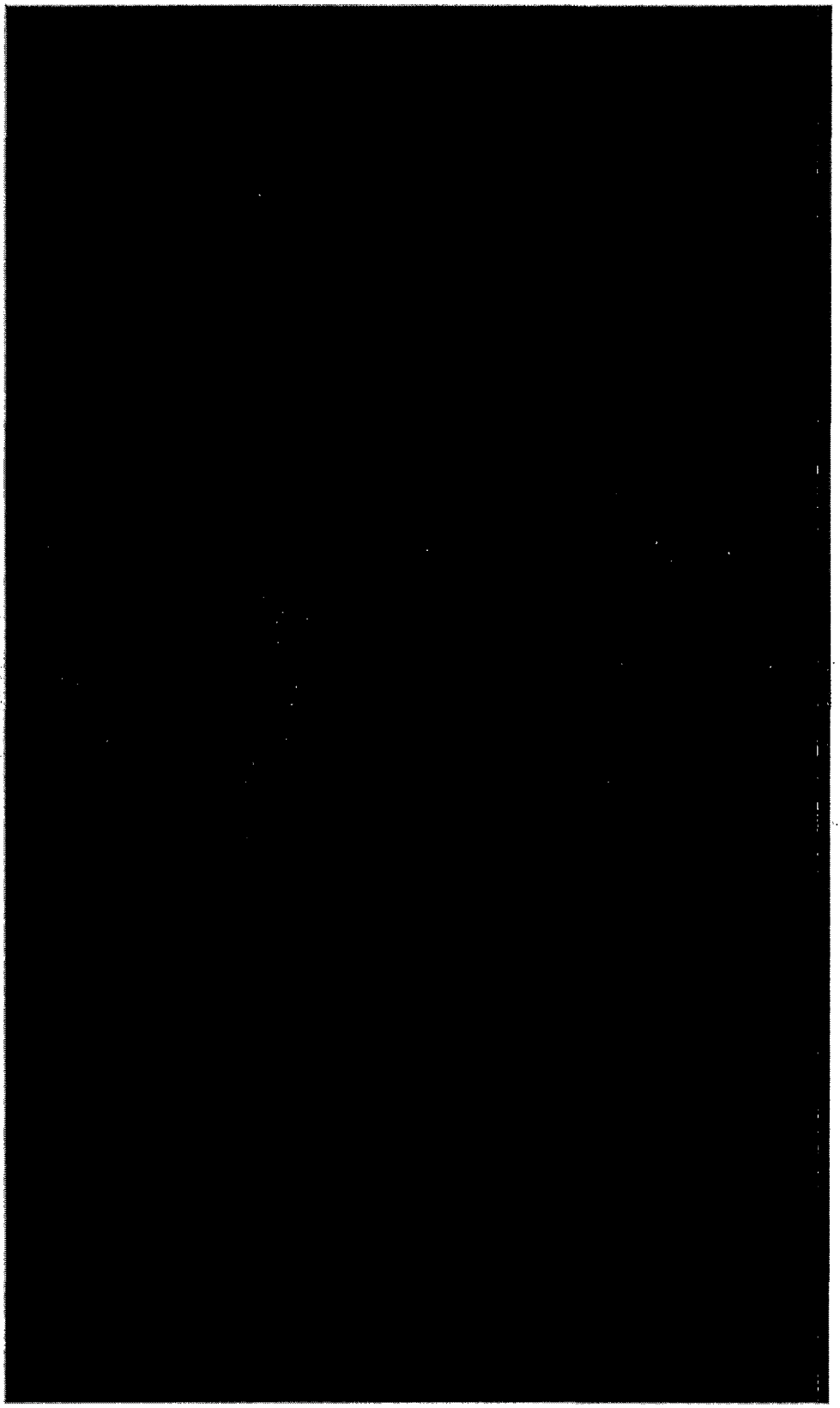
Project Evaluation and Approval

Storage Facility for Reactor Vessel Head	0

Project Risk Score Sheet for evaluating need of special management controls

Enter an X in the highest box that applies for each category. Check ONE box unless noted otherwise. **Score**





ATTACHMENT 3

ENERGY*SOLUTIONS* PROPOSALS

Proprietary & Confidential

Withhold from Public Disclosure Pursuant to 10 CFR 2.390

Non-Proprietary Version

ENERGY*SOLUTIONS*

September 24, 2007
ES-2007-001056

Mr. Joe Sheppard
South Texas Project
P. O. Box 289
Wadsworth, TX 77483

Dear Mr. Sheppard:

Energy*Solutions* is pleased to provide the attached proposal in response to our discussions.

Energy*Solutions* has been providing large component transportation and disposal services for over 20 years and is confident that we have offered the most efficient and cost effective option for STP.

Please note that Energy*Solutions*' proposal shall remain valid for STP's acceptance for a period of 60 days from the date of this letter. If you have any questions concerning our proposal or need additional information, please don't hesitate to contact me:

We appreciate the opportunity to bid on this work and look forward to talking with your further about our offer.

Office:	803-758-1827
Cell:	803-960-3619
Fax:	803-758-1834
Email:	mslewis@duratekinc.com

Sincerely,

Mark S. Lewis
Regional Vice President and Director
Logistics and Engineering Services

MSL/jtg
(P-2007-015)

SECTION 1.0

EXECUTIVE SUMMARY

SECTION 1.0 - EXECUTIVE SUMMARY

EnergySolutions proposes the early disposal of the eight (8) steam generators (SGs) currently stored in a mausoleum at the two-unit STP Electric Generating Station (STP). An analysis has been performed to compare the costs of early disposal with the costs of postponing disposal until the units shut down and are decommissioned. This analysis demonstrates the economic advantages of early disposal and supports the use of STP's nuclear Decommissioning Trust Fund (DTF) for the removal of the major components from the site in advance of shut down at the site. The net effect will be to reduce the overall cost to decommission the site and make more funds available to decommission the reactors at the time the reactors shut down. Because it would reduce the eventual cost and complexity of decommissioning the facility, the use of DTF for prompt disposal of the major components is in the public interest, as well as STP's interest.

In addition to the economic advantages, early disposal will facilitate the decommissioning process so that:

(1) The radioactive source term (contaminated SGs) will be reduced;

(2) The site workers will be exposed to less radiation; and

(3) An unnecessary management and regulatory burden can be eliminated.

Therefore, there are compelling operational, regulatory, safety, and cost advantages to proceeding with early removal of the SGs.

1.1 ECONOMIC ADVANTAGE

The STP licenses are projected to expire in 2027 and 2028 with the disposal of the retired steam generators occurring approximately 2 years following shut down. [redacted]

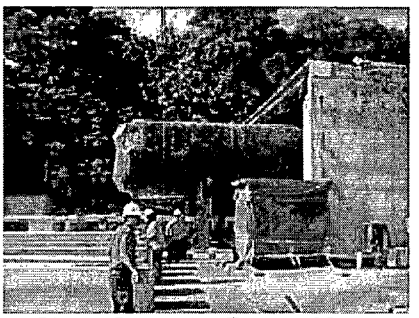
[redacted]

[redacted]

1.2 PROJECT APPROACH

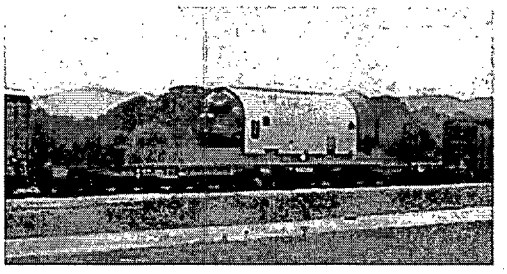
Energy*Solutions* will perform the engineering, transport, and disposal of the eight (8) old SGs, currently stored in an on-site mausoleum from STP to the Energy*Solutions*' Disposal Site in Clive, Utah.

- [redacted]



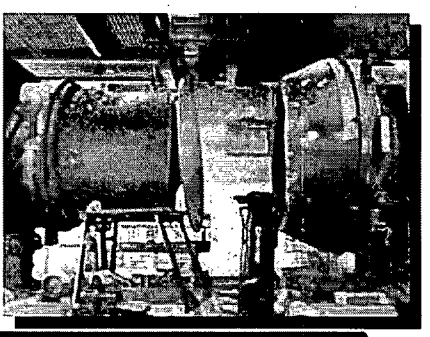
Steam Generator Removal from Mausoleum

[redacted]



1.3 TECHNICAL BENEFITS TO STPNOC

[redacted]



[redacted] For example, since 2004, the Clive facility has received and disposed of over 3.4 million pounds of large components from U.S. nuclear plants proceeding with decommissioning.

- **Focus on Safety**: Energy*Solutions* has an excellent safety record, with **zero** recordable injuries and no Notices of Violation (NOVs) or audit findings on more than 75 large component moves. Attention to safety on all work activities assures STP of no incidents and protection of the workers, public, and the environment.

- **Proven Plans, Procedures, and Work Control Process**: Application of an approach based upon our previous field proven practices and use of previous documents associated with similar large component projects, including SG projects, will expedite project planning and assures safe, compliant, timely project execution.

- **Dedicated Large Components and Licensing Organization:** Dedicated organization with expertise in all aspects of large component disposal, including capabilities to perform radiological characterization, waste characterization, structural analysis, packaging/transport/shielding design, U.S. Department of Transportation (DOT)/NRC Special Permitting, etc. This provides the capability to plan, staff, and conduct all critical tasks associated with this project as required, with depth of personnel and multi-disciplinary skills facilitating completion of key design, analysis, and reporting activities.

- **Familiarity with Clive Site and Disposition Criteria:** As the operator of the Clive Site, Energy*Solutions* is thoroughly familiar with all permits, communication, logistics, and waste acceptance criteria (WAC) associated with Clive disposal. This assures STP of successful approval and acceptance of the SGs at the Clive Site.

- **Capability to Handle Miscellaneous Waste**: In the event that additional miscellaneous waste is generated, the waste can be shipped directly to Clive or the Energy*Solutions*' Bear Creek Operations low-level waste processing facility in Oak Ridge, Tennessee for incineration, compaction, baling, metal melting, and other waste volume reduction technologies and methods to readily receive and process the STP miscellaneous waste.

1.5 [redacted]

[redacted]

Tables 1.1 and 1.2 show [redacted]

Table 1.1: [redacted]

Utility	# of SGs	Year Performed	Disposal Location[1]	Downsizing Performed	Price/cuft[2]
[redacted]					

Table 1.2 [redacted]

Utility	# of SGs	Year Performed	Disposal Location	Downsizing Performed	Price/cuft
[redacted]					

[redacted]

1.6 SUMMARY

Energy*Solutions* assures STP of an experienced engineering, radioactive material management, and transportation disposal firm with the depth of expertise, safety focus, and the ready capability to perform the STP SG disposition project safely and efficiently with minimal impact to normal station operations. We will work in partnership with STP to maintain the plans defined in this offer through project commencement and completion, as well as, continue to investigate other more cost-effective solutions. Energy*Solutions* offers the flexibility to alter transportation methods, transportation route, process methods, and disposal locations prior to implementation in the event conditions change that limit performance or cheaper options become available.

We will gladly discuss all aspects of our approach with STP and welcome an opportunity to provide a presentation, at your convenience, highlighting the benefits of our project approach.

SECTION 2.0

TECHNICAL APPROACH

2.0 – TECHNICAL APPROACH

2.1 INTRODUCTION

Energy*Solutions* evaluated all feasible options for the disposition of STP's SGs, taking into consideration the technical and regulatory requirements and our understanding of the overall project goals and objectives. Energy*Solutions* evaluated each option based on the following factors:

- **Safety**: Radiological and industrial safety hazards;
- **Price**: The overall price versus the value STP would receive;
- **Schedule**: The impact the option would have on the overall project schedule;
- **Liability**: The potential long-term liability issues associated with the option; and
- **Regulatory**: Minimizing risks associated with approvals and permits for off-site transportation, processing and disposal.

[redacted]

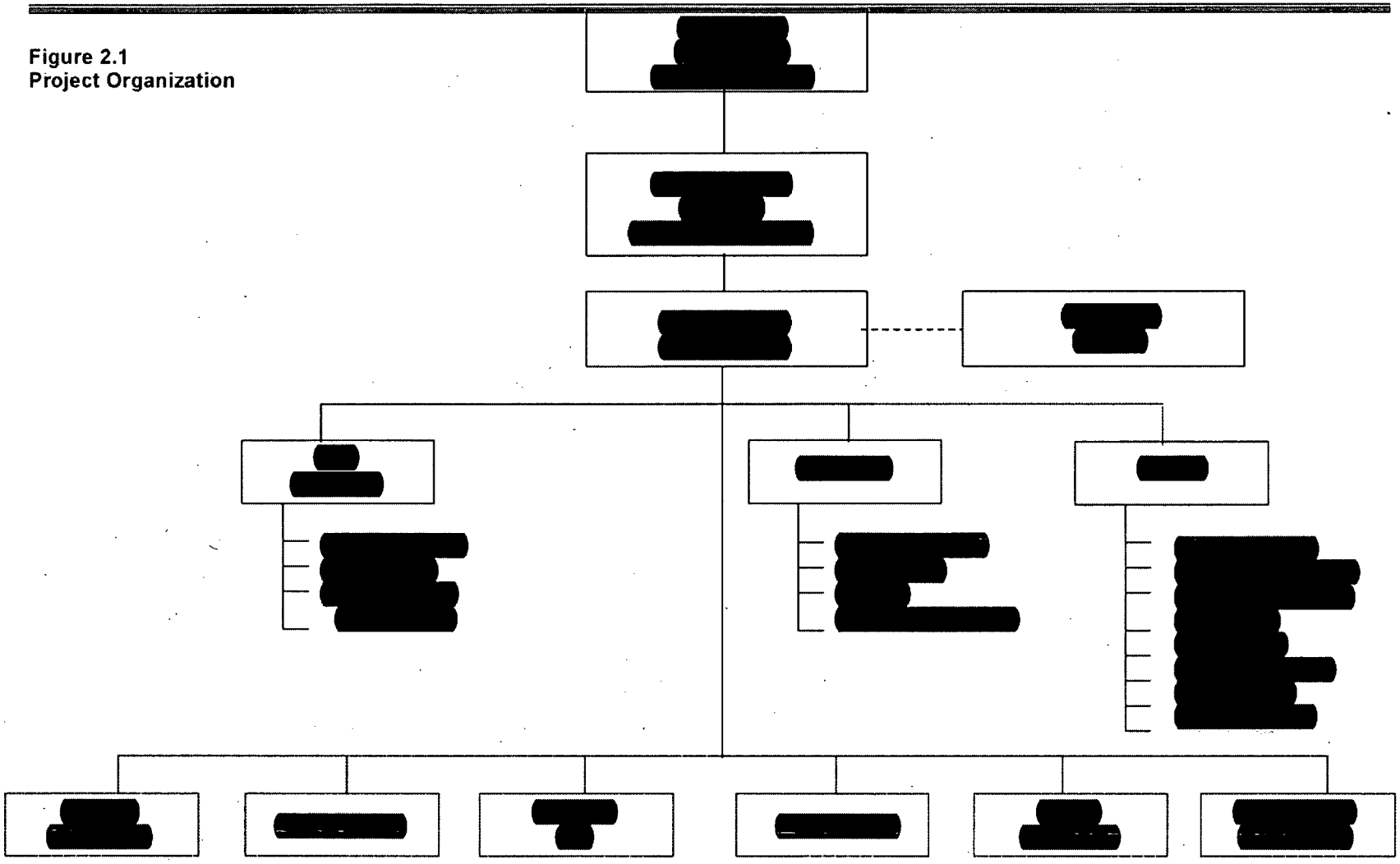
2.2 PROJECT ORGANIZATION

Energy*Solutions* personnel are the nation's leading experts at safely handling complex transportation and logistical challenges, routinely transporting thousands of loads over six million miles across the United States each year. We are the **most experienced transporter and disposer of large components, having transported over 75 components with many being multi-modal projects** (rail, barge and highway) and disposed of over 90 components.

A primary and critical factor of our success and ability to perform this type of work is the caliber of people we utilize to manage these types of projects and the competent support personnel and infrastructure we possess (QA, Licensing, Engineering, Regulatory Affairs, etc.).

Our proposed organization is provided in **Figure 2.1.**

Figure 2.1
Project Organization



2.3 DESIGN AND FABRICATION

[redacted]

2.3.1 [redacted]

[redacted]

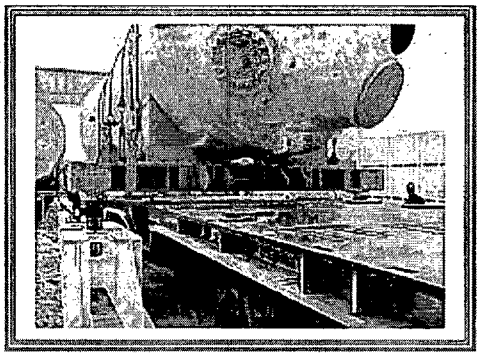


Figure 2.2 – Typical Transportation Saddles

2.3.2 [redacted]

[redacted]

2.3.3 [redacted]

[redacted]

2.3.4 [redacted]

[redacted]

2.4 REGULATORY WORK

Energy*Solutions* will perform the regulatory work discussed in this section to support the off-site transportation and disposal of the SGLAs at our Clive, Utah disposal facility.

2.4.1 U.S. DOT SPECIAL PERMIT

Energy*Solutions* has obtained a Special Permit from the U.S. DOT for the packaging and transport of radioactive SGs, although the Special Permit requires the performance and documentation of compliance analysis. Subject to the limits of the Special Permit, Energy*Solutions* will be able to package and transport SGs from anywhere in the United States and will use this permit to transport the STP SGLAs. Based on station specific data provided by STP, Energy*Solutions* will perform the required analysis and prepare the necessary documentation to demonstrate that the STP SGLAs comply with the DOT Special Permit.

Energy*Solutions* will take the lead role in this activity. **Table 2.1** below presents a responsibility matrix for demonstrating compliance with the U.S. DOT Special Permit.

Table 2.1
Responsibility Matrix for Demonstration of Compliance with Special Permit

Submittal Component	Energy*Solutions*	STP
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

2.4.2 DISPOSAL APPROVAL PROCESS

[redacted]

[redacted]

[1] Although not included as part of this proposal, Energy*Solutions* can perform these activities for STP.

[redacted]

2.5 TRANSPORTATION LOGISTICS

[redacted]

[2] Energy*Solutions* has obtained a preliminary clearance from the railroads for transport of the STP SGLAs from Buckeye rail spur to Clive, UT. A final clearance will be requested 30 days prior to the shipment and could be denied due to recent road or bridge work, thus affect the pricing and ability to perform the work as proposed.

[redacted]

FIGURE 2.3
TRANSPORTATION SECURITY PLANNING

2.6 [redacted]

[redacted]

2.6.1 PRE-MOBILIZATION

[redacted]

[redacted]

2.6.2 MOBILIZATION TO STP

[redacted]

[redacted]

2.6.3 SG PREPARATION

[redacted]

2.6.4 SG TRANSPORT

[redacted]

[redacted]

2.6.5 RAIL TRANSPORTATION AND DISPOSAL

[redacted]

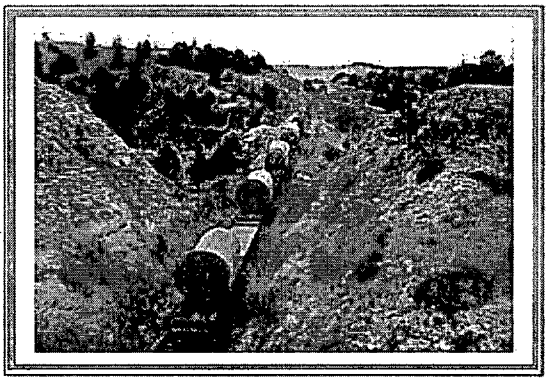


FIGURE 2.4 – SG SHIPMENT ENROUTE TO CLIVE

2.7 MILESTONE SCHEDULE

[redacted]

SECTION 3.0

COMPENSATION AND COMMERCIAL TERMS

3.0 – COMPENSATION AND COMMERCIAL TERMS

3.1 COMPENSATION

[redacted]

3.2 MILESTONE PAYMENT SCHEDULE

Energy*Solutions* suggests the proposed milestone payment schedule provided in **Table 3.1** based on the percentage of work completed:

Table 3.1
Milestone Payment Schedule

No.	Milestone	Amount	Running Total
[redacted]			

3.3 BASIS FOR BID

[redacted]

A PROPOSAL TO

STP NUCLEAR OPERATING COMPANY FOR TRANSPORTATION AND DISPOSAL OF REACTOR HEADS FROM SOUTH TEXAS PROJECT

SUBMITTED BY:

ENERGY*SOLUTIONS*
140 STONERIDGE DRIVE
COLUMBIA, SC 29210

JANUARY 25, 2007

ENERGY*SOLUTIONS*

January 24, 2007
ES-2007-001078

Mr. Johnny Houston
STP Nuclear Operating Company
South Texas Project
P. O. Box 289
Wadsworth, TX 77483

Dear Mr. Houston:

Energy*Solutions* is pleased to provide the attached proposal in response to your verbal request for the "Disposal of Retired Reactor Vessel Closure Head Services from the South Texas Project (STP).

Energy*Solutions* has been providing large component transportation and disposal services for over 20 years and is confident that we have offered the most efficient and cost effective option for STP. STP's recent Life of Plant (LOP) Agreement is designed specifically for wastes such as these reactor heads.

Please note that Energy*Solutions*' proposal shall remain valid for STP's acceptance for a period of 120 days from the date of this letter. If you have any questions concerning our proposal or need additional information, please don't hesitate to contact me:

We appreciate the opportunity to bid on this work and look forward to talking with your further about our offer.

Office:	803-758-1827
Cell:	803-960-3619
Fax:	803-758-1834
Email:	mslewis@duratekinc.com

Sincerely,

Mark S. Lewis
Regional Vice President and Director
Logistics and Engineering Services

MSL/jtg
(P-2007-004)

SECTION 1.0 - INTRODUCTION

Energy*Solutions* is uniquely qualified to package, transport, and dispose of STP's old reactor heads. Since our first project in 1992 to package, transport, and disposal of the Millstone steam generators, Energy*Solutions* has packaged, transported, and/or disposed of over 90 large components, which include reactor vessels, steam generators, reactor heads, pressurizers, heat exchangers, and turbine rotors. Our most recent reactor head disposition projects include the five (5) reactor heads from the Nuclear Management Corporation (NMC) plants and one (1) reactor head from the Millstone Unit 2 plants. The most recent Millstone project also included the pressurizer and two (2) turbine rotors. Figure A-1 is our suggested organization to accomplish this project is the same successful fashion.

[redacted]

Option Description	Transportable	Cost	Risk/ALARA
[redacted]			

SECTION 2.0 – [redacted]

[redacted]

[redacted]

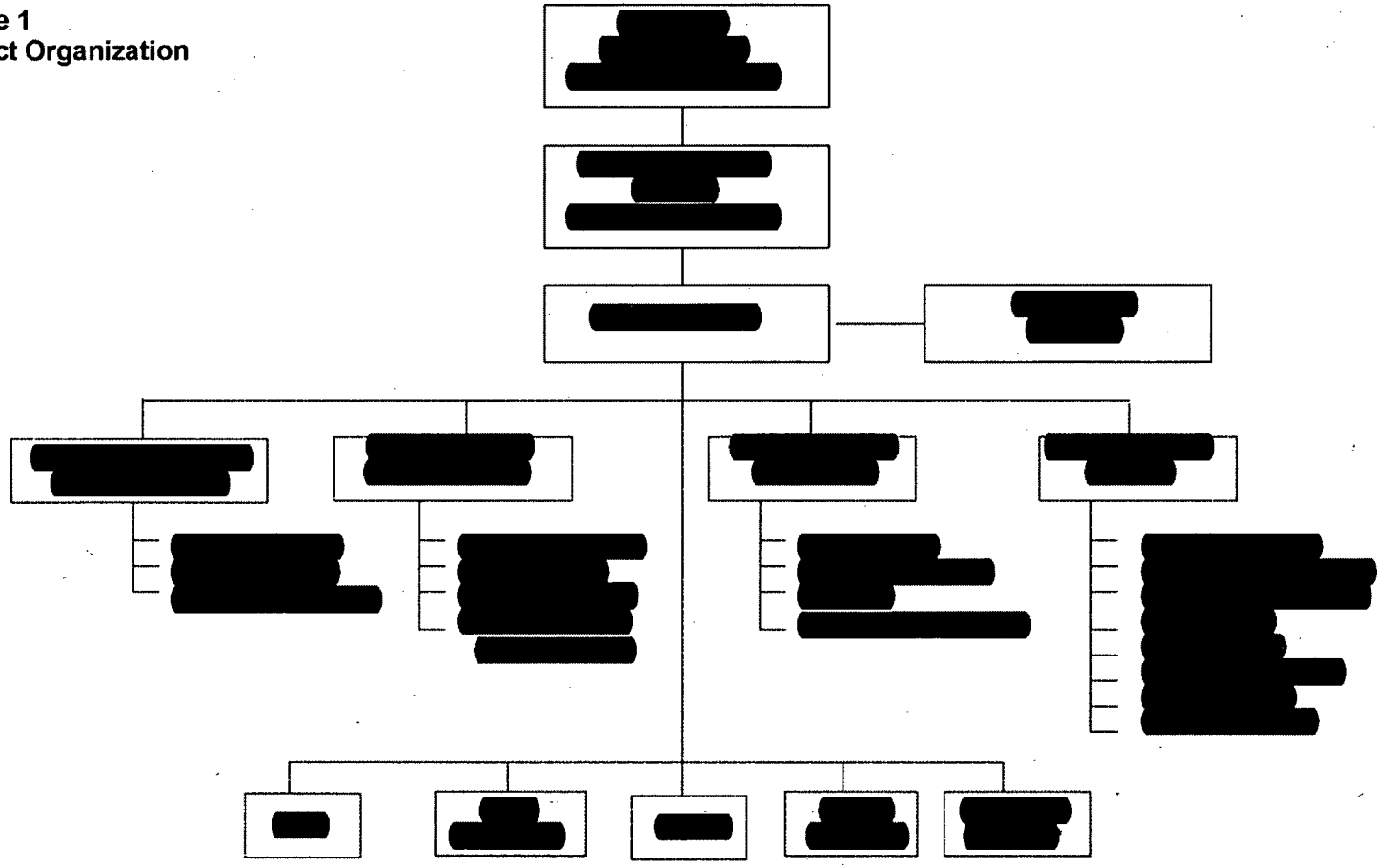
2.1 [redacted]

[redacted]

2.2 [redacted]

[redacted]

Figure 1
Project Organization



*[redacted]

Figure 2

[redacted]

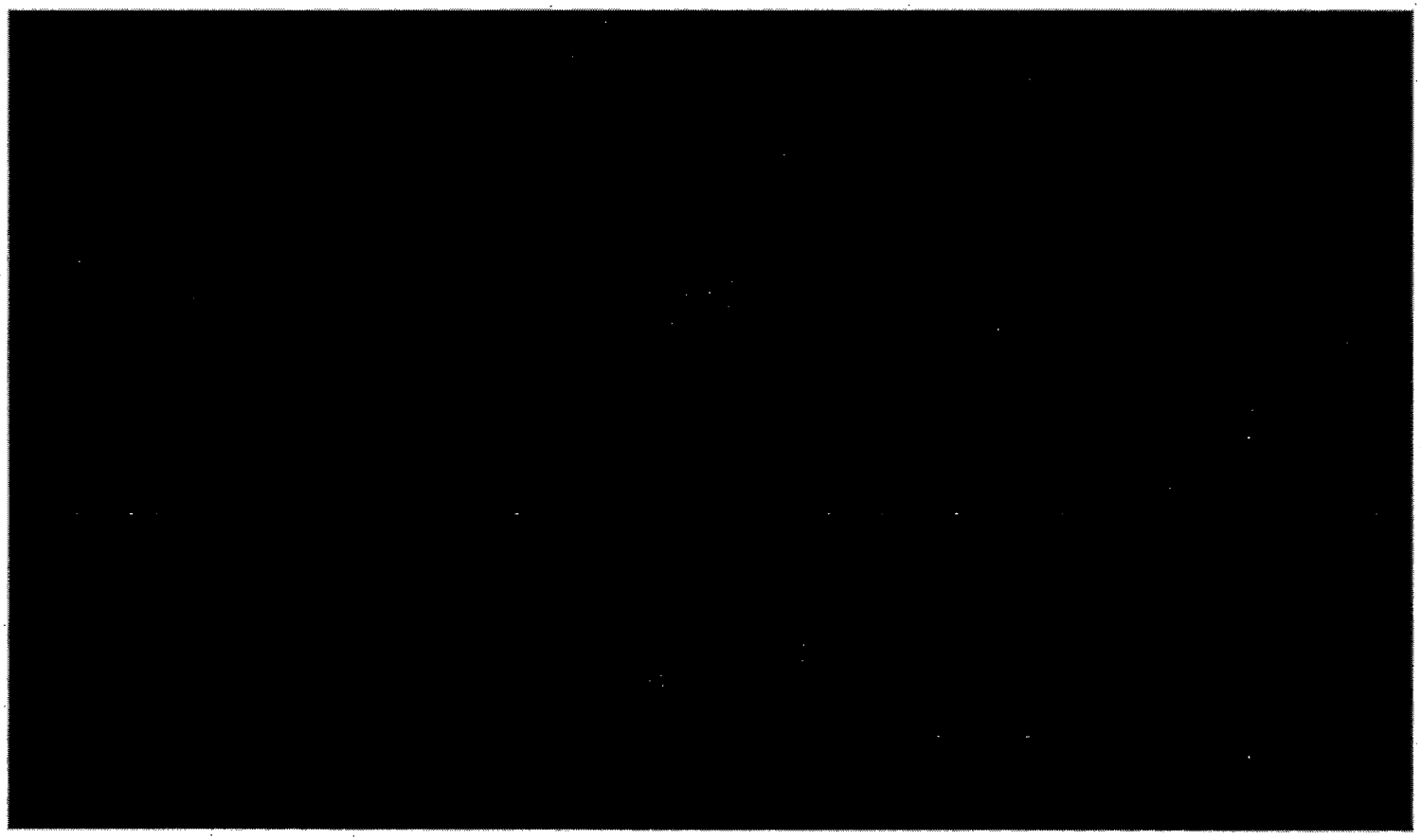
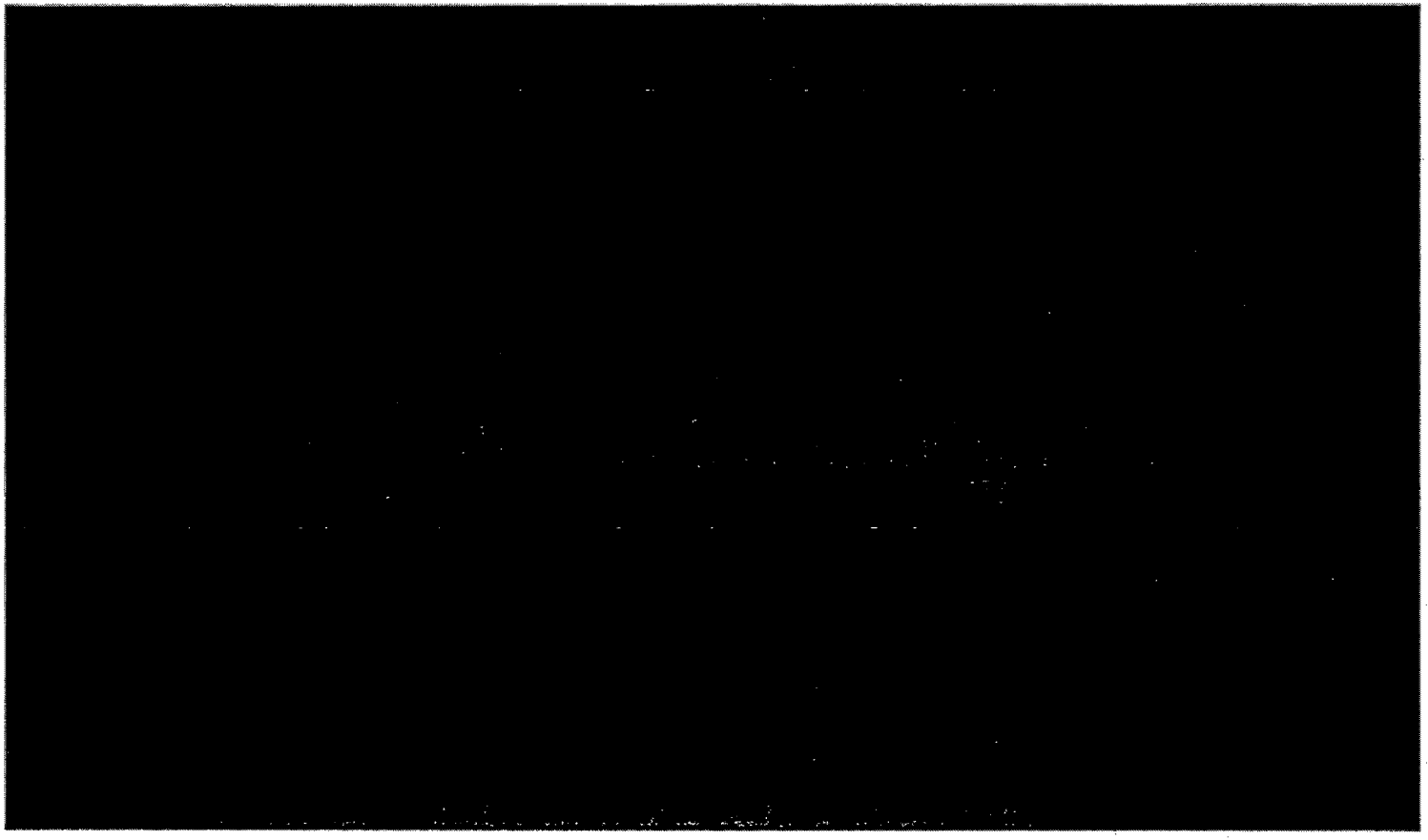


Figure 3

[redacted]



2.3 [redacted]

[redacted]

2.4 Schedule

A Level 1 schedule can be provided upon receipt of more detailed outage schedule. In order to properly plan the project, Energy*Solutions* will require that STP finalize the start date and duration a minimum of [redacted]

3.0 [redacted]

[redacted]

3.1 [redacted]

[redacted]

[redacted]

[redacted]

3.2 [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Figure 4

[redacted]

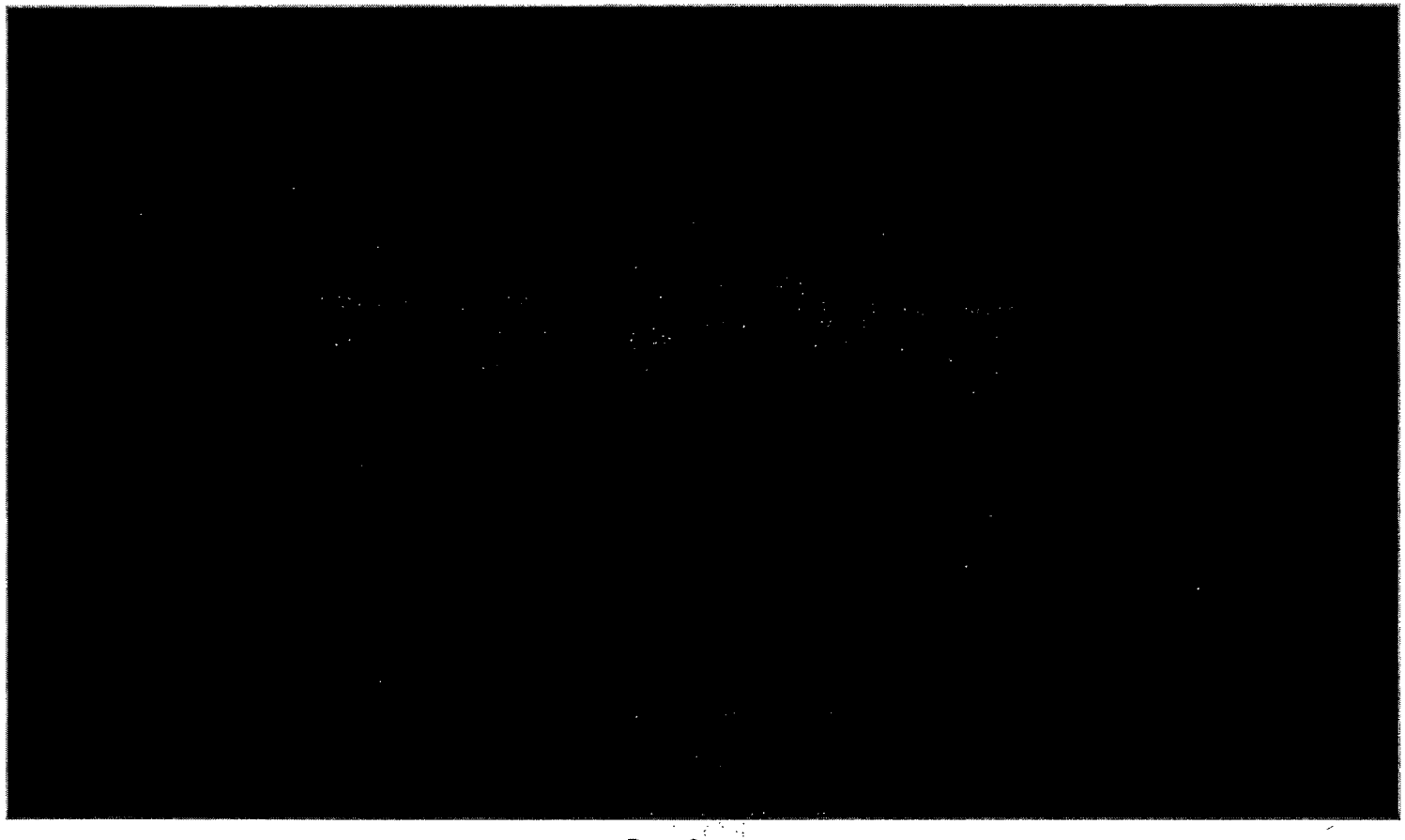
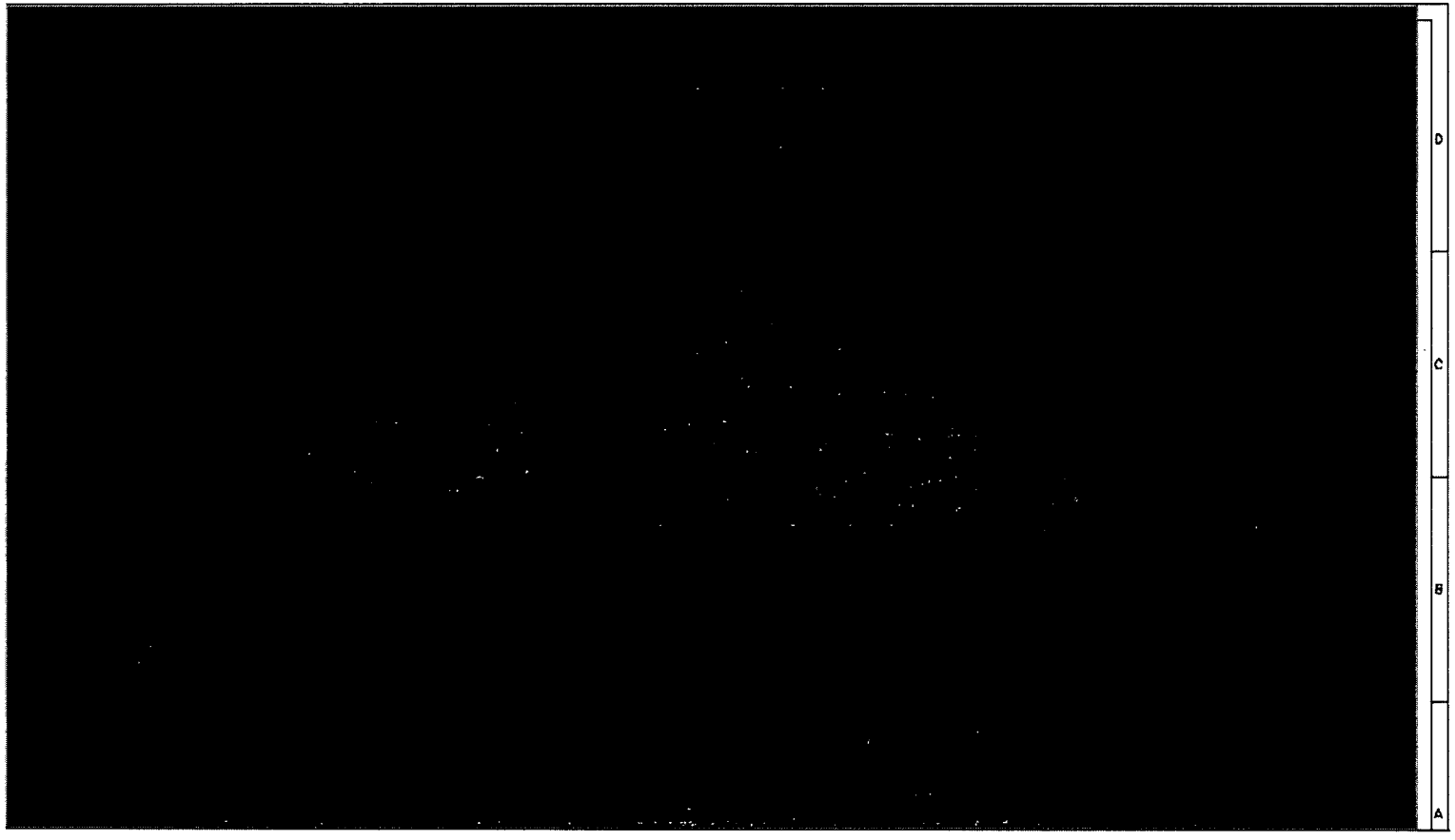


Figure 5

[redacted]



4.0 COMPENSATION AND TERMS

[redacted]

5.0 TIME & MATERIAL RATES

The proposed Time & Material rates that would be applicable in the event that the project experienced a delay or stand down that was caused by parties other than Energy*Solutions* or Energy*Solutions* subcontractors are shown in Table G-2.

Table G-2
Time and Material Rates

Resource	Straight Time Hourly Rates	Overtime Hourly Rates	Double Time Hourly Rates
Energy*Solutions* Personnel			
[redacted]			