

CHANGE ORDER FORM
DEP Contract No. SP644
Page 1 of 2

Change Order No.: SP644-018 **Contractor Name:** CDM Constructors, Inc. (CDM)

Contractor Contract Manager: Dean Carter **Phone No:** (407) 660-6423

Description of Change(s) (Attach additional documents if referenced in description below.):

Activity Reference Code ¹	Change(s) authorized by this Change Order	Deliverable(s) and Due Date(s)	DEP Deliverable Review in Work Days	Payment Method	Dollar Value of Change (+ or -) ²	Change in Payment Basis
A.	Pursuant to paragraph 34.D, Task A. was modified to include the cost for increasing the storage capacity of the NCP for additional lime treatment waste disposal. Contractor agrees that this Change Order represents the full agreed upon lump sum amount, including slurry wall services as noted in CDM's February 9, 2007 correspondence, for increasing the NCP storage capacity in accordance with the Engineer's drawings and specifications, that partial payments for subcontracted services shall not be more than the amount of such subcontractor invoices submitted as backup documentation, and that any remaining balance, if any, for non-subcontracted works shall be invoiced only upon acceptance of the final work by the Engineer. Contractor further agrees that this change order is being provided to allow invoicing for related subcontracted services while the Contractor completes its review and submittal of a draft Schedule of values that is necessary before the Department and Contractor can proceed to complete a Dispute Resolution Agreement, including this cost, for the Remaining Cooling Pond Closure Works under paragraph 20 of the Contract.	As noted	No Change	No Change	\$258,700.00	Yes
C4b.2.	Pursuant to paragraph 34.D, \$134,500 in ancillary costs are being added to Task C4b.2 for initial invoicing for dredge mobilization, installation of dredge line, and initial survey/site cleanup, based on the amounts presented in the 1/5/2007 Dredge America invoice to Contractor. Contractor agrees this amount is a portion of the agreed upon lump sum cost increase of \$780,000 for relocation of sludges in the SCP-N compartment to the NCP, as may be needed for closure construction to proceed. Contractor further agrees that this change order is being provided to allow invoicing for related subcontracted services, subject to the specified retainage, while the Contractor completes its review and submittal of a draft Schedule of values that is necessary before the Department and Contractor can proceed to complete a Dispute Resolution Agreement, including this cost, for the Remaining Cooling Pond Closure Works under paragraph 20 of the Contract.	As noted	No Change	No Change	\$134,500.00	Yes

Total Increase or Decrease in Project Costs resulting from this Change Order: \$393,200.00

Ceiling Amount of Contract Impacted? (Yes or No) Yes

Total Impact on Ceiling Amount all Change Orders (SP644-001 to SP644-018) to Date: \$1,006,134.00

Ceiling Adjustments made by Amendments (-- to --) to Date: \$0.00

Current Ceiling Amount Adjustments Needed: \$1,006,134.00

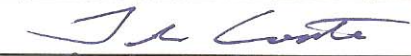
Notes: ¹Activity Reference Code shall conform to the activity code system established in Attachment C. ²Contractor understands that all funding for DEP Contract SP644 is established by authorized funding increment amounts. This Change Order does not increase or decrease the authorized funding increment amount of the Contract. All changes in authorized funding increment amounts shall be processed by letter or contract amendment as addressed in paragraph 7 of the Contract.

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Change(s) in Contract Completion Date Needed as a Result of this Change Order:

Current Contract Completion Date (without renewals):	February 22, 2010
Completion Date of Contract (without renewals) impacted by this Change Order? (Yes or No)	No
Increase or Decrease, in Calendar Days, Needed as a Result of this Change Order:	0
Total Increase/Decrease, in Calendar Days, Needed as a Result of all Change Orders (SP644-001 to SP644-018) to Date:	0
Completion Date Changes (in Calendar Days) Authorized by Amendments (-- to --) to Date:	0
Current Completion Date Changes, in Calendar Days, Needed by Amendment:	0

This Change Order is a modification to the Contract between the Contractor and the Department (DEP), and all contract provisions shall apply unless specifically exempted. The amount and time change designated are the maximum agreed to by both the Department and the Contractor for this change. In consideration of the foregoing adjustments in contract time and contract sum the Contractor hereby releases Department from all claims, demands or causes of action arising out of the transactions, events and occurrences giving rise to this Change Order. This written Change Order is the entire agreement between the Department and Contractor with respect to this Change Order. No other agreements or modifications shall apply to this Change Order unless expressly provided herein.

Approval Required	Signature	Date
Director or Deputy Director, Division of Water Resource Management (Contract Authority, DEP):		<u>Feb. 16, 2007</u>
DEP Contract Manager, Bureau of Mine Reclamation:		<u>2/16/2007</u>
Vice President, CDM Constructors Inc.:		<u>2/15/07</u>

List of Attachments/Exhibits Included with this Change Order:

Specify Type/Reference	Title/Description of Document	Number of Pages
DEP Contract No. SP644, Attachment C	DEP Contract No. SP644, Attachment C revised per Change Order SP644-018	8
CDM's February 9, 2007 correspondence	CDM's February 9, 2007, correspondence providing information on costs related to increasing the capacity of the NCP.	11
CDM's January 5, 2007 Dredge America Invoice	CDM's January 5, 2007 invoice from Dredge America for initial mobilization, dredge line installation, and initial site survey/cleanup.	1

cc: Gwenn Godfrey, Procurement Section (MS93)
DEP Contracts Disbursements Section (MS78) - 2 Copies

**ATTACHMENT C
PAYMENT AND DELIVERABLE SCHEDULE**

DESCRIPTION		Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD ⁽⁵⁾	DELIVERABLES	PAYMENT BASIS ⁽⁸⁾
A. OPERATION AND MAINTENANCE						
OPERATION AND MAINTENANCE, Years 1-2		\$6,552,794	NA		Operation and Maintenance activities are to be reported in the "Piney Point Operation and Maintenance Status Report" (Monthly Status Report) to be submitted with the monthly Operation and Maintenance Invoices. The format for the Monthly Status Report shall provide sufficient detail and summary information for the Department Contract Manager to determine the extent to which contract requirements are being met. The specific format will be mutually agreed upon by the Contractor and the Department.	Monthly invoice line items shall be provided as follows: 1. During the first contract month only for Operation & Maintenance (O&M), an invoice line item shall include the price for "O&M Activities and Mobilization" based on the agreed upon lump sum allocation of \$ 375,000. 2. During the second month, and on a monthly basis thereafter, the lump sum O&M amounts shall be invoiced as "Site Operation & Maintenance Activities" based on the agreed upon O&M Monthly Lump Sum Allocation Values shown below for this Scope of Services. The invoice line item should reference the corresponding year and month for services. O&M Monthly Lump Sum Allocation Values, not to exceed: - Contract Year 1, Months 2-12 shall be \$ 268,600 / month - Contract Year 2, Months 1-12 shall be \$ 268,600 / month - Contract Year 3, Months 1-12 shall be \$ 149,950 / month - Contract Year 4, Months 1-12 shall be \$ 100,000 / month - Contract Year 5, Months 1-12 shall be \$ 79,939 / month Retainage: None, unless otherwise specified in Change Order after contract execution. 3. Per Change Order SP644-007, a one-time lump sum amount of \$ 16,884 may be added to an O&M monthly invoice to reimburse agreed upon costs for the unexpected cleanup of oil contaminated water and soil materials following leakage of oil from the abandoned ball mill lube oil tank that was located in the vicinity of the process water pumps in the phosphoric acid plant on July 25, 2005.
OPERATION AND MAINTENANCE, Years 3-5		\$3,958,663	NA			
A1	Site Operation and Maintenance (Including Process Water and Runoff Management, Inspections, Site Security, Mowing, Repairs, and Post-Closure Care & Maintenance)				Activity to be included on the Monthly Status Report.	
A2	Utilities (Power, excluding power used in process water consumption, Water, Domestic Wastewater, Refuse Collection, etc.)				Include KWH consumption in the Monthly Status Report.	
A3	Safety Training and Safety Compliance				1. Incident Reports to be included in the Monthly Status Report and verbal notifications provided to DEP Contract Manager as needed. 2. A copy of an Employee Training Log shall be provided monthly showing the required training for employees performing services under this contract, and either the planned or actual dates of corresponding employee training.	
A4	Groundwater Monitoring Plan Implementation				Reporting according to Discharge Monitoring Reports (DMRs) per Administrative Agreement, National Pollutant Discharge Elimination System (NPDES) permit, or other Department issued orders as may be effective, issued, or amended during contract period for the subject site/facilities.	
A5	Surface Water Monitoring Plan Implementation				Reporting according to DMRs per Administrative Agreement, NPDES permit, or other Department issued orders as may be effective, issued, or amended during contract period for the subject site/facilities.	
A6	Project Coordination, Direction & Reporting				Include activity summary information in the Monthly Status Report including Monthly Site Meeting minutes between DEP contract manager, Receiver, Engineer, and Contractor's team.	
A7	Liability Insurance Coverage (Including Pollution Liability)				Copy of effective Insurance Policy showing policy type, coverage limits, and policy term.	
	July 25, 2005 Ball Mill Lube Oil Leak and Cleanup	\$16,884			Copy of related invoices, and identification of costs for personnel and equipment used to contain and cleanup the July 25, 2005 Ball Mill Lube Oil Tank Leak.	
	February 7, 2006 OGS-S Subgrade and Liner Repair	\$1,660			Copy of related invoices, and identification of costs for personnel and equipment used to repair the subgrade and liner on February 7, 2006, as submitted for Change Order SP644-016.	
	October 2006 maintenance and liner repair work needed to support temporary piezometer installation through the OGS-S lined ditch.	\$1,784			Copy of related invoices, and identification of costs for personnel and equipment used to support temporary piezometer installation and repair of the liner following removal on October 3-4, 2006, as submitted for Change Order SP644-017.	
	Additional NCP Storage Capacity for lime treatment sludge disposal, to be constructed in accordance with the Engineer's drawings and specifications.	\$258,700			Copy of invoices for completed subcontract maintenance work needed for partial payments, as specified by Change Order SP644-018.	

Task A, Total Lump Sum: \$10,790,485

DESCRIPTION		Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD ⁽⁵⁾	DELIVERABLES	PAYMENT BASIS ⁽⁸⁾
B. PROCESS WATER CONSUMPTION						
B1	Years 1-2, Up to 712.5 MGal Consumption ⁽¹⁰⁾	\$ 6,971,211	\$ 10.70 / 1,000 gal.		Weekly Water Report spreadsheet including, but not limited to: - daily rainfall, pond water levels, and water volumes for each consumption method (i.e., Double-lime, RO, Spray Evaporation, or Spray Irrigation), - daily measured ammonia nitrogen and estimated total nitrogen concentrations at Outfall 003, - calculated daily total discharge load in lbs. for total nitrogen and ammonia nitrogen at Outfall 003, and - the total discharge volume at Outfall 003, the 15-day rolling average and 30-day rolling average ammonia nitrogen and total nitrogen load (in lbs.) at Outfall 003. The Weekly Water Report shall reflect the weekly period from Tuesday - Monday of a given week and be submitted to the Department within 48 hours of the end of the weekly period. The content and format for the Weekly Water Report shall be as agreed upon by the Department Contract Manager.	Monthly Invoice line items shall be provided as follows: 1. Each monthly invoice shall specify the total water consumption for each day in the period based on: - measured water consumption volumes (by final disposal / discharge method) for double lime, RO permeate, and/or spray irrigation discharges in accordance with Note ⁽¹⁾, and - spray evaporation consumption based on the reported Operation Factor for the period, and the agreed upon monthly adjusted baseline evaporative loss design rates in Note ⁽²⁾, corresponding to each Department approved spray evaporation system. Retainage: None, unless otherwise specified in Change Order after contract execution.
	Years 3-5, Greater than 712.5 MGal Consumption up to 950 MGal Consumption	\$ 2,021,268	\$ 8.51 / 1,000 gal.			
	Water consumption shall continue under contract terms for process water consumption; however, volumes greater than 950 MGal are not billable beyond the lump sum amount, except as specified for Tasks B2 and B3. At the end of Years 1-2 from the effective start date for this task, any remaining lump sum balance of the Years 1-2 fixed-price, if any, will be paid upon satisfactory completion of Years 1-2 process water consumption tasks as outlined in this contract. At the end of Years 3-5 from the effective start date for this task, any remaining lump sum balance of the Years 3-5 fixed-price, if any, will be paid upon satisfactory completion of Years 3-5 process water consumption tasks as outlined in this contract.	\$ 0.00	\$ 0.00 / 1,000 gal.			
	Spray Evaporation Consumption Adjustment	See B1	See B1			2. An additional invoice line item shall be added to reflect any invoiced amount or credit to be applied for an anticipated semi-annual "Spray Evaporation Consumption Adjustment" that will be determined based on semi-annual water balance modeling results provided by the Engineer. The water balance modeling results, or an alternative method proposed by the Engineer where mutually agreed upon, will be used to determine the spray evaporation consumption taking into consideration the measured or estimated water inputs/outputs and changes in water inventory.
B2	Year 1, Additional 10.6 MGal / inch rainfall above 55 inches Year 2, Additional 7.1 MGal / inch rainfall above 55 inches Year 3, Additional 4.1 MGal / inch rainfall above 55 inches	NA	\$ 12.40 / 1,000 gal. \$ 13.02 / 1,000 gal. \$ 14.66 / 1,000 gal.			3. Pursuant to the Contract terms, an additional invoice line item shall be added at the end of Years 1, 2, and 3 to reflect any additional "Contract Allowance for Rainfall greater than 55 inches/year."
B3	Year 1, Debited 10.6 MGal / inch rainfall less than 50 inches Year 2, Debited 7.1 MGal / inch rainfall less than 50 inches Year 3, Debited 4.1 MGal / inch rainfall less than 50 inches	NA	\$ 5.63 / 1,000 gal. \$ 5.63 / 1,000 gal. \$ 1.66 / 1,000 gal.			4. Pursuant to the Contract terms, an additional invoice line item shall be added at the end of Years 1, 2, and 3 to reflect any "Contract Deduction for Rainfall less than 50 inches/year."
B4	Years 1-2, Allowance for variation in drainable pore water volume and rate	\$211,500	NA			5. A monthly invoice line item shall include a uniformly allocated "Pore Water Allowance" cost based on the lump sum amount for the indicated period. Accordingly, Years 1-2 shall be invoiced for a total not to exceed \$211,500, or \$8,812.50 / month and Years 3-5 shall be invoiced for a total not to exceed \$70,500, or \$1,985.34 / month.
	Years 3-5, Allowance for variation in drainable pore water volume and rate	\$70,500	NA			

Task B, Total Lump Sum: \$9,274,479 ⁽³⁾

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DESCRIPTION		Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD ⁽⁵⁾	DELIVERABLES	PAYMENT BASIS ⁽⁸⁾
C. CLOSURE CONSTRUCTION ACTIVITIES						1. Invoice based on Percent Complete, approved by Third Party Engineer, of the lump sum amount for each construction phase and each work segment.
	RESERVOIR SLOPE COVER (All 4 Ponds)					Retainage: 25% of each submitted invoice amount, except as specified below for seeding activities, to be released following Engineer's conditional acceptance of a given phase/work segment. Upon completion, submittals shall include a copy of the Engineer's Completion of Construction Certification and As-built Drawings provided by the Contractor.
C1	Reservoir Slope Cover (All 4 Ponds)	\$6,543,346	⁽⁴⁾	10		
	PHASE III - NGS-S COMPARTMENT					
C2a	NGS-S Reservoir (2005)	\$4,136,718	⁽⁴⁾	10		Retainage - seeding subtasks/activities: 40%, with the retainage to be released six months after seeding activity resulting in successful establishment of grassed cover following approval of Engineer.
C2b	NGS-S Cap Area (2005)	\$842,958	⁽⁴⁾	10	Monthly submittals with Closure Construction Invoice: - Weekly construction meeting minutes, prepared by Engineer - Copies of agenda/minutes from ad hoc construction coordination and update meetings - Percent completion of each phase of each activity and work element - Conditional acceptance by Engineer of each phase/work element for invoicing of closure construction activities. See Note ⁽⁴⁾ .	2. In accordance with Change Order SP644-005, invoices for Task C1 (NGS-S Lined Slopes) and Tasks C2a, C2b, C2c, and C2d may include a percent complete and corresponding lump sum allocation reflecting borrow source preparation for materials stockpiled for the Gulfstream borrow source as of June 1, 2005. The percent complete for soil cover borrow source preparation activities under Task C1 (NGS-S Lined Slopes) and Tasks C2a, C2b, C2c, and C2d shall be determined based on not more than the agreed upon quantity estimate for the stockpiled soil cover materials, stockpiled as of June 1, 2005, where the estimated quantity has been approved by the Engineer and has an equivalent value not to exceed \$5.50 per cy. The Department may release retainage for invoiced amounts for soil cover borrow source preparation only after the stockpiled materials have been screened for potential pollutants in accordance with a sampling plan accepted by the Department.
C2c	OGS Cap Areas (2005)	\$956,053	⁽⁴⁾	10		
C2d	NGS-N Relief Ditch (2005)	\$912,406	⁽⁴⁾	10		
C2e	Re-Closure of NGS-N Relief Ditch if Used for Disposal of Plant Scale (at FDEP's Option)	\$1,413,000	⁽⁴⁾	10		
	STACK SLOPES AND DITCHES				End of Construction Phase: - Engineer's certification of completion of construction for each activity - As Built drawings for each activity	3. Invoices may include a lump sum allocation for stored materials under Task C3a (Phase I Slopes) where provided in accordance with Note ⁽⁹⁾ below.
C3a	Phase I Slopes - OGS (2005)	\$2,540,065	⁽⁴⁾	10		
C3b	Phase II Slopes - NGS (2006)	\$3,163,511	⁽⁴⁾	10		
	COOLING/SLUDGE PONDS & DITCHES					
C4a	NCP Closure	\$3,787,926	⁽⁴⁾	10		
C4b	SCP Closure	\$7,788,541	⁽⁴⁾	10		
C5	Gypsum Fill Management	\$305,877	⁽⁴⁾	10		

Task C, Total Lump Sum: \$32,390,401

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DESCRIPTION		Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD ⁽⁵⁾	DELIVERABLES	PAYMENT BASIS ⁽⁸⁾
MISCELLANEOUS BILLABLE ITEMS						
E2	Transport Plant Scale to Stack (25,000 cy)	\$250,000	\$ 10.00 / cy	10	Documentation showing percent complete approval from Engineer for scale placement.	Invoice line items to be included on Construction Invoice based on percent task completion as approved by Engineer.
F5	Miscellaneous Lump Sum Costs other than Fluctuation and Plant Scale Costs	\$956,000	NA		Record keeping as required by state law.	Invoice as a separate lump sum line item as "Miscellaneous Lump Sum Costs other than Fluctuation and Plant Scale Costs." This separate invoice item shall be included on the monthly Operation and Maintenance invoices based the contract fixed-price amount, uniformly allocated over the expected 5 year term of the contract.
	Fluctuation in Electric Power Costs - Operation and Maintenance			10	Documentation showing the applicable power usage (in KWH), and the change in unit power cost from Florida Power and Light (FPL) for most favored commercial customers in the Tampa Bay area after considering an escalation corresponding to 3% per year from the FPL base rate charged for such customers in December 2004.	An additional invoice line item shall be added to reflect an invoiced amount (invoice debit or credit) to be applied for the annual "Fluctuation in Electric Power Costs" that shall be determined as outlined in Note ⁽⁶⁾ for electric power costs applicable to Operation and Maintenance activities and electric power costs associated with Process Water Consumption. The line item and amount (invoice credit or debit) shall be invoiced in the monthly invoice for the end of Contract Years 2, 3, 4, and 5.
	Fluctuation in Liner Resin Costs			10	Documentation showing the neat liner quantities for 40-mil, 60-mil, and 80-mil liner determined by the Engineer for planned construction activities in Contract Years 1, 2, and 3, and Liner Resin unit price quotes and unit conversions as outlined in Note ⁽⁷⁾ . The documentation shall show the change in actual liner resin unit cost for Contract Years 1, 2, and 3 after considering an escalation corresponding to 3% per year from the November 2004 Base Liner Resin Unit Cost established as outlined in Note ⁽⁷⁾ .	Documentation showing the neat liner quantities for 40-mil, 60-mil, and 80-mil liner determined by the Engineer from detailed construction drawings for planned construction activities in Contract Years 1, 2, and 3, and supporting documentation for determination of the "lowest adjusted price" (expressed in dollars per square feet) as outlined in Note ⁽⁷⁾ .

Notes:

- ⁽¹⁾ For days where the calculated 30-day rolling average ammonia nitrogen discharge is greater than 20 lbs./day and less than or equal to 50 lbs./day, the "billable consumption volume" for discharges to Bishop Harbor will be adjusted to reflect 90% of the actual corresponding volume (i.e., equivalent to 0.9 times the lump sum unit price for <= 50 lbs./day ammonia nitrogen). For days where the calculated 30-day rolling average ammonia nitrogen discharge is greater than 50 lbs./day, the "billable consumption volume" for discharges to Bishop Harbor shall be shown as zero. For days where the calculated 30-day rolling average ammonia nitrogen discharge is less or equal to 20 lbs./day, the "billable consumption volume" for discharges to Bishop Harbor shall be the water treatment volume.
- ⁽²⁾ Monthly Adjusted Baseline Evaporative Loss Design Rates are provided below, for each Department approved system, based on 24-hour/day, 7-days/week operation with an Operating Factor of 0.80.

2.1 SE-1, Existing Spray Evaporation System in NGS-N reservoir where the average Net Spray Consumption rate (in MGD) for the values from January through December is 0.200 MGD, when operating with 1169 nozzles at a minimum nozzle pressure and rate of 50 psi and 2.91 gpm/nozzle, respectively. When operating at sprayfield pressures between 25 and 50 psi, the Net Spray Consumption (MGD) at the given operating pressure may be determined by interpolating or extrapolating the Spray Consumption Factor from those shown in the corresponding table, multiplied by the listed monthly Net Spray Consumption (MGD) for the values at 50 psi to yield the reduced Net Spray Consumption (in MGD) for periods during that month when operating at pressures between 25 and 50 psi.

Month	Average Pond Evaporation (in)	Average Net Spray Consumption (MGD)
Jan	2.48	0.116
Feb	2.62	0.135
Mar	3.88	0.181
Apr	5.42	0.261
May	6.26	0.292
Jun	6.13	0.295

Month	Average Pond Evaporation (in)	Average Net Spray Consumption (MGD)
Jul	5.70	0.267
Aug	5.23	0.244
Sep	4.52	0.218
Oct	3.43	0.160
Nov	2.47	0.119
Dec	2.34	0.109

Spray Consumption Factors		
Pressure (psi)	Net Spray Consumption (MGD)	Spray Consumption Factor (factor)
30	0.08	0.400
40	0.131	0.655
50	0.2	1.000

2.2 Pursuant to Change Orders SP644-004 and SP644-009, the Average Net Spray Water Consumption rates are shown below for areas SE-3, SE-4, SE-7, and SE-10, as described below, when operating at minimum nozzle pressure of 50 psi and inflow rate of 2.91 gpm/nozzle, respectively. Subject to Department approval, where the indicated number of operating spray system nozzles are changed from those indicated, the net spray consumption rate (in MGD) shall be adjusted accordingly, per nozzle increased or decreased, in the system as constructed. Reflecting changes from SP644-009, previously authorized, but not constructed SE-9 is removed and replaced with SE-10 as described herein. Per Change Order SP644-009, the quantity of spray evaporation nozzles and resulting evaporative consumption rates were changed from 360 to 208 and from 203 to 255 for SE-4 and SE-7 spray evaporation systems, respectively. Construction and operation of additional spray systems listed below shall provide for drift and erosion monitoring and immediate suspension of individual or all segments of such systems as the Department may determine is warranted.

When operating at sprayfield pressures between 25 and 50 psi, the Net Spray Consumption (MGD) at the given operating pressure may be determined by interpolating or extrapolating the Spray Consumption Factor from those shown in the corresponding table, multiplied by the listed monthly Net Spray Consumption (MGD) for the values at 50 psi to yield the reduced Net Spray Consumption (in MGD) for periods during that month when operating at pressures between 25 and 50 psi.

- SE-3, Spray Evaporation System in South Cooling Pond (SCP) Internal Dams and Ditch Area between Dams.
- SE-4, Spray Evaporation System in North Cooling Pond (NCP).
- SE-7, Spray Evaporation System along the northern and western dikes of SCP-N.
- SE-10, Spray Evaporation System addition in process water return canal.

Month	SE-3 Average Net Spray Consumption for 614 nozzles (MGD)	SE-4 Average Net Spray Consumption for 208 nozzles (MGD)	SE-7 Average Net Spray Consumption for 255 nozzles (MGD)	SE-10 Average Net Spray Consumption for 97 nozzles (MGD)
Jan	0.0777	0.0210	0.0292	0.0111
Feb	0.0821	0.0222	0.0309	0.0117
Mar	0.1215	0.0329	0.0457	0.0174
Apr	0.1698	0.0459	0.0639	0.0243
May	0.1961	0.0530	0.0737	0.0280
Jun	0.1920	0.0519	0.0722	0.0274
Jul	0.1786	0.0482	0.0672	0.0255
Aug	0.1638	0.0443	0.0616	0.0234
Sep	0.1416	0.0382	0.0532	0.0202
Oct	0.1075	0.0291	0.0404	0.0154
Nov	0.0774	0.0210	0.0291	0.0110
Dec	0.0733	0.0198	0.0276	0.0104

Spray Consumption Factors

Pressure (psi)	Net Spray Consumption (MGD)	Spray Consumption Factor (factor)
30	0.08	0.400
40	0.131	0.655
50	0.2	1.000

⁽³⁾ Total Lump Sum for Process Water Consumption subject to adjustment for items B2 and B3 as governed by contract terms.

⁽⁴⁾ Closure Construction Activities subject to schedule subdivision and future updates by Engineer, including subdivision into mutually agreed upon releasable work segments for progress monitoring and payment purposes. Please see Attachment C, Table 1, Closure Task Breakdown, Piney Point ITN 2005002C for current subdivision of Closure Construction Activities.

⁽⁵⁾ The Approval Period shall be five (5) working days to inspect and approve the invoiced services for payment, unless another period of working days is specified herein.

⁽⁶⁾ The adjustment to pricing, if any, for fluctuations in electric power costs will be made based upon the posted unit price (in \$ per KWH) as charged by Florida Power and Light to its most favored commercial customers in the Tampa Bay area, compared to the adjusted unit price charged by Florida Power and Light to the same customers in December 2004 but after considering an escalation corresponding to 3% inflation per year. The change in unit power cost, relative to the escalated base unit price, in December 2005, December 2006, December 2007 and December 2008 will be used for making the adjustment (either debit or credit) for electric power costs during contract years 2, 3, 4 and 5, assuming a theoretical power usage of 11.3 Million KWH (Year 2), 3.8 Million KWH (Year 3), 2.6 Million KWH (Year 4) and 2.0 Million KWH (Year 5), respectively, during each of the corresponding four contract years.

⁽⁷⁾ The adjustments to pricing, if any, for fluctuations in Liner Resin prices will be made based upon the neat liner quantities determined by the Engineer from detailed design drawings (without any adjustment for liner overlaps, liner buried in anchor trenches, increased liner area due to sloping surfaces, liner for repair patches, waste, etc.) for planned liner installation activities during each calendar year. The adjustment (either debit or credit) will be based upon the lower of either:

1) The lowest documented change in liner sheet unit price from at least two liner manufacturers (expressed in dollars per square feet) for orders placed in November 2004 escalated by 3% inflation per year, compared to orders placed in February 2005 and in December 2005 and December 2006, respectively, for planned construction activities in each of the first three contract years; or

2) The lowest documented change in Liner Resin unit price from at least two liner manufacturers or resin suppliers for orders placed in November 2004 compared to orders placed in February 2005 and in December 2005 and December 2006, respectively, for planned construction activities in each of the first three contract years. The change in actual liner resin unit price (expressed in dollars per pound of resin), after accounting for 3% escalation per year from the November 2004 BAFO unit price of \$0.64/lb. shall be multiplied by 0.237 lb/ft², 0.347 lb/ft² and 0.442 lb/ft² for 40-mil, 60-mil and 80-mil liner, respectively.

The lowest adjusted price as determined above (expressed in dollars per square feet) shall be multiplied by the neat liner quantity from detailed design drawings (expressed in square feet) times a factor of 1.10 adopted herein to accommodate additional liner buried in anchor trenches, liner overlaps, waste, etc.

⁽⁸⁾ Lump Sum Unit rates or monthly allocations of the fixed cost amounts are rounded to the nearest cent or dollar as shown. In all cases, the final monthly invoice for a given period shall reflect the necessary amount so that the indicated fixed-price is not exceeded. There shall be no adjustment to the lump sum pricing presented in Attachment C for any fluctuations in Contractor's costs, including lime costs, fuel costs or any other utility or commodity cost during the term of the contract, except as specifically provided for herein, including Notes ⁽⁶⁾ and ⁽⁷⁾.

⁽⁹⁾ In accordance with Change Order SP644-011, invoices for Task C3a (Phase I Slopes) may include a percent complete and corresponding lump sum allocation reflecting stored silica gravel to be used during the installation of drains associated with this Task, where the stored material quantity and value has been approved by the Engineer. Supporting documentation shall be provided with the invoice for the Engineer's review to determine that the stored materials conform to that specified for the task.

⁽¹⁰⁾ In accordance with Change Order SP644-012, the Year 1-2 lump sum amount for water consumption was adjusted from \$7,624,007 to 6,971,211 based on Year 1 adjustments for rainfall deficit, 30-day rolling average ammonia-nitrogen treatment compensation, and OGS-N fresh water input adjustments.

⁽¹¹⁾ In accordance with Change Order SP644-013, invoices for Task C3b (Phase II Slopes) and C4b. (SCP) may include a percent complete and corresponding lump sum allocation reflecting stored silica gravel and HDPE piping, manholes, and related structures to be used during construction associated with these Tasks, where the stored material quantity and value has been approved by the Engineer. Supporting documentation shall be provided with the invoice for the Engineer's review to determine that the stored materials conform to that specified for the task.

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ATTACHMENT C
TABLE 1

CLOSURE TASK BREAKDOWN
PINEY POINT - ITN 2005002C

Item	Closure Construction Element		Engineer's Estimate	CDM BAFO Estimate	CDM BAFO PRICE	Computed Unit Rate	CDM BAFO Unit Rate	Totals
C1	ITEM C1. RESERVOIR SLOPE COVER (All 4 Ponds)							
	Soil Cover (NGS-N, OGS-S & OGS-N Lined Slopes)	cy	270,000	270,000	\$ 3,350,000	\$ 12.41	\$ 12.41	
	Soil Cover (NGS-S Lined Slopes - From C2)	cy	130,000	140,000	\$ 1,580,924	\$ 11.29	\$ 11.29	
	80-Mil HDPE Liner (Crest Roads)	sf	175,000	175,000	\$ 120,000	\$ 0.69	\$ 0.69	
	Drain Composite (All 4 Ponds)	sy	85,000	85,000	\$ 816,000	\$ 9.60	\$ 9.60	
	Sodding NGS-N, OGS-S & OGS-N Slope Cover	ac	40	40	\$ 351,700	\$ 8,792.50	\$ 8,792.50	
	Sodding NGS-S Slope Cover (From C2)	ac	18	18	\$ 158,300	\$ 8,794.44	\$ 8,794.44	
	Seed or Sod (Soil Crest Cover)	ac	4	4	\$ 9,400	\$ 2,350.00	\$ 2,350.00	
	Other Ancillary (See Notes 16 and 17)	lump	lump	lump	\$ 157,022	-	-	
								TOTAL ITEM C1
								\$ 6,543,346
C2	ITEM C2. PHASE III - NGS-S COMPARTMENT							
	Task C2a. NGS-S Reservoir (2005)							
	Sludge Excavation (see Note 4)	cy	5,000	0	\$ -	\$ -	\$ 8.80	
	Gypsum Fill (see Note 4)	cy	380,000	206,500	\$ 1,547,675	\$ 7.49	\$ 5.97	
	80-Mil HDPE Liner (see Note 5 and Note 33)	sf	3,000,000	3,000,000	\$ 2,200,476	\$ 0.733	\$ 0.68	
	Soil Cover	cy	3,000	3,000	\$ 30,794	\$ 10.26	\$ 11.29	
	Seed or Sod (West Dike Crest Road)	ac	1	1	\$ 2,342	\$ 2,341.67	\$ 2,341.67	
	Outlet Structure	lump	lump	lump	\$ 10,000	-	-	
	NGS-S Reservoir - Soil Cover Mobilization (see Note 6)	lump	lump	lump	\$ 3,083	-	-	
	Other Ancillary	lump	lump	lump	\$ 342,349	-	-	
	(Note: Soil cover and associated drain composite and sodding were moved from Item C2 to Item C1)							
	Task C2b. NGS-S Cap Area (2005)							
	Gypsum Fill (see Note 12)	cy	5,000	46,700	\$ 278,962	\$ 5.97	\$ 5.97	
	40-Mil HDPE Liner (see Note 7)	sf	500,000	354,250	\$ 152,645	\$ 0.431	\$ 0.40	
	Soil Cover (See Note 26)	cy	25,000	29,150	\$ 290,400	\$ 9.96	\$ 11.29	
	Seed or Sod	ac	10.5	10.5	\$ 24,588	\$ 2,341.67	\$ 2,341.67	
	Outlet Structure	lump	lump	lump	\$ 10,000	-	-	
	NGS-S Cap Area Soil Cover Mobilization (see Note 6)	lump	lump	lump	\$ 38,771	-	-	
	Other Ancillary (see Note 34)	lump	lump	lump	\$ 47,593	-	-	
	Task C2c. OGS Cap Areas (2005)							
	Gypsum Fill (see Note 13)	cy	10,000	39,500	\$ 235,953	\$ 5.97	\$ 5.97	
	60-Mil HDPE Liner (see Note 8)	sf	450,000	419,487	\$ 215,462	\$ 0.514	\$ 0.47	
	Soil Cover (see Note 26)	cy	24,000	33,600	\$ 344,479	\$ 10.25	\$ 11.29	
	Seed or Sod	ac	7.5	7.5	\$ 17,563	\$ 2,341.67	\$ 2,341.67	
	Outlet Structures (2)	lump	lump	lump	\$ 6,000	-	-	
	OGS Cap Areas Soil Cover Mobilization (see Note 6)	lump	lump	lump	\$ 34,942	-	-	
	Other Ancillary (see Note 35)	lump	lump	lump	\$ 101,654	-	-	
	Task C2d. NGS-N Relief Ditch (2005)							
	Gypsum Fill (see Notes 14 and 39)	cy	5,000	37,860	\$ 226,122	\$ 5.97	\$ 5.97	
	60-Mil HDPE Liner (see Note 9)	sf	300,000	292,703	\$ 150,342	\$ 0.514	\$ 0.47	
	Soil Cover (see Note 27)	cy	18,000	27,500	\$ 287,335	\$ 10.45	\$ 11.29	
	Seed or Sod (Soil Cover)	ac	5	5	\$ 11,708	\$ 2,341.67	\$ 2,341.67	
	Amended Gypsum Grassing (From C3)	ac	10	10	\$ 66,636	\$ 6,663.64	\$ 6,663.64	
	Outlet Structure	lump	lump	lump	\$ 3,000	-	-	
	NGS-N Relief Ditch Soil Cover Mobilization (see Note 6)	lump	lump	lump	\$ 23,204	-	-	
	Other Ancillary (see Note 36)	lump	lump	lump	\$ 144,059	-	-	
	Task C2e. Re-Closure of NGS-N Relief Ditch if Used for Disposal of Plant Scale (at FDEP's Option)							
	60-Mil HDPE Liner	sf	500,000	500,000	\$ 235,000	\$ 0.47	\$ 0.47	
	Soil Cover	cy	50,000	50,000	\$ 531,000	\$ 10.62	\$ 10.62	
	Sodding	ac	12	12	\$ 105,000	\$ 8,750.00	\$ 8,750.00	
	Outlet Structure Modification	lump	lump	lump	\$ 3,800	-	-	
	Gypsum Fill (Encapsulate Scale)	cy	75,000	75,000	\$ 273,000	\$ 3.64	\$ 3.64	
	Gypsum Borrow Area Work							
	Remove & Restore Soil Cover	cy	25,000	25,000	\$ 93,500	\$ 3.74	\$ 3.74	
	Remove & Replace 40-Mil Liner	sf	350,000	350,000	\$ 139,000	\$ 0.40	\$ 0.40	
	Restore Grass (Seed or Sod)	ac	8	8	\$ 18,400	\$ 2,300.00	\$ 2,300.00	
	Other Ancillary	lump	lump	lump	\$ 14,300	-	-	
								TOTAL ITEM C2
								\$ 8,261,135.00
C3	ITEM C3. STACK SLOPES AND DITCHES							
	Task C3a. Phase I Slopes - OGS (2005)							
	Gypsum Earthwork (see Note 15)	cy	50,000	111,250	\$ 229,239	\$ 2.06	\$ 2.06	
	80-Mil HDPE Liner (Runoff Ditches) (see Note 10)	sf	575,000	524,457	\$ 387,956	\$ 0.740	\$ 0.69	
	60-Mil HDPE Liner (Transfer Pond) (See Note 11)	sf	130,000	0	\$ -	\$ -	\$ 0.47	
	60-Mil HDPE Liner (OGS Slope Pond) (See Note 11)	sf	70,925	70,925	\$ 36,483	\$ 0.514	\$ 0.47	
	Drains	lf	5,500	5,610	\$ 647,240	\$ 115.37	\$ 115.37	
	Soil Cover (see Note 24)	cy	80,000	43,000	\$ 543,251	\$ 12.63	\$ 12.63	
	Soil Cover (OGS Slope Pond) (See Note 24)	cy	80,000	7,565	\$ 95,574	\$ 12.63	\$ 12.63	
	Soil Grassing							
	Seeding (Stormwater Ponds)	ac	3	3	\$ 7,031	\$ 2,343.75	\$ 2,343.75	
	Sodding (Runoff Ditches)	ac	13	13	\$ 114,263	\$ 8,789.47	\$ 8,789.47	
	Amended Gypsum Grassing	ac	23	23	\$ 153,264	\$ 6,663.64	\$ 6,663.64	
	Additional Panel Drains - OGS (see Note 30)							
	OGS Slope Pond and OGS-N Cap Area	lump	lump	lump	\$ 21,941	-	-	
	Phase I (OGS) Ditches	lump	lump	lump	\$ 10,749	-	-	
	Deepening the OGS-S South slope seepage drain (see Note 32)	lump	lump	lump	\$ 90,000	-	-	
	Regrading - west slope of the NGS-N (See Note 38)	lump	lump	lump	\$ 2,487	-	-	
	Other Ancillary (see Note 37)	lump	lump	lump	\$ 200,586	-	-	
								TOTAL ITEM C3
								\$ 2,540,065

**ATTACHMENT C
TABLE 1**

**CLOSURE TASK BREAKDOWN
PINEY POINT - ITN 2005002C**

Item	Closure Construction Element		Engineer's Estimate	CDM BAFO Estimate	CDM BAFO PRICE	Computed Unit Rate	CDM BAFO Unit Rate	Totals	
	Task C3b. Phase II Slopes - NGS (2006)								
	Gypsum/Earthwork (see note 28)	cy	50,000	72,995	\$ 150,411	\$ 2.06	\$ 2.06		
	Soil Import/Earthwork (see note 29)	cy	na	25,313	\$ 271,608	\$ 10.73	na		
	80-Mil HDPE Liner (Runoff Ditches) (see Note 18)	sf	225,000	400,350	\$ 321,644	\$ 0.803	\$ 0.69		
	60-Mil HDPE Liner (Stormwater Pond) (see Note 19)	sf	570,000	409,250	\$ 231,043	\$ 0.565	\$ 0.47		
	Drains	lf	7,000	7,140	\$ 823,760	\$ 115.37	\$ 115.37		
	Soil Cover (see Note 25)	cy	70,000	81,200	\$ 1,025,860	\$ 12.63	\$ 12.63		
	Soil Grassing								
	Seeding (Stormwater Pond)	ac	13	13	\$ 30,469	\$ 2,343.75	\$ 2,343.75		
	Sodding (Runoff Ditches)	ac	6	6	\$ 52,737	\$ 8,789.47	\$ 8,789.47		
	Amended Gypsum Grassing	ac	22	22	\$ 146,600	\$ 6,663.64	\$ 6,663.64		
	Additional Panel Drains - Phase II (NGS) Ditches (see Note 30)	lump	lump	lump	\$ 5,248				
	Repair NGS-S South Slope Cavities (see Note 31)	lump	lump	lump	\$ 8,373	-	-		
	Other Ancillary	lump	lump	lump	\$ 95,759	-	-		
								Total Task C3b	TOTAL ITEM C3
							\$ 3,163,511	\$ 5,703,576.00	
C4	ITEM C4. COOLING/SLUDGE PONDS & DITCHES								
	Task C4a. NCP Closure								
	Earthwork (Soil)	cy	200,000	198,050	\$ 1,351,225	\$ 6.82	\$ 6.82		
	80-Mil HDPE Liner (Runoff Ditches)	sf	100,000	100,000	\$ 68,500	\$ 0.685	\$ 0.69		
	40-Mil HDPE Liner	sf	1,300,000	1,300,000	\$ 514,800	\$ 0.396	\$ 0.40		
	Drains	lf	2,500	2,560	\$ 293,880	\$ 114.80	\$ 114.80		
	Soil Cover	cy	110,000	103,184	\$ 1,400,008	\$ 13.57	\$ 13.57		
	Soil Grassing								
	Seeding (Cap Areas)	ac	30	30	\$ 70,292	\$ 2,343.08	\$ 2,343.08		
	Sodding (Runoff Ditches)	ac	4	4	\$ 35,180	\$ 8,795.00	\$ 8,795.00		
	Other Ancillary	lump	lump	lump	\$ 54,041				
								Total Task C4a	
								\$ 3,787,926	
	Task C4b.1 SCP-S Phase I Closure (see note 21)								
	Earthwork (Soil) (see Note 22)	cy	25,000	43700	\$ 298,034	\$ 6.82	\$ 6.82		
	80-Mil HDPE Liner (Process Water Sump) (see Notes 18)	sf	485,000	496,908	\$ 391,062	\$ 0.787	\$ 0.69		
	Construct SCP Relief Ditch	cy	--	11,000	\$ 38,304	\$ 3.48	--		
	Construct Partition Dike	cy	--	25,000	\$ 170,500	\$ 6.82	--		
	Grade/Dewater for Sump	lump	--	lump	\$ 37,000		--		
	Seepage Relief Drain	lf	--	470	\$ 58,656	\$ 124.80	\$ 114.80		
	Soil Grassing								
	Seeding (Limited Cap Areas for Process Water Sump)	ac	--	1	\$ 2,343	\$ 2,343.00	\$ 2,343.08		
	Other Ancillary	lump	lump	lump	\$ 117,242				
								Total Task C4b.1	
								\$ 1,113,141.00	
	Task C4b.2 SCP-S Phase II and SCP-N Closure								
	Earthwork (Soil)	cy	25,000	24754	\$ 168,888	\$ 6.82	\$ 6.82		
	80-Mil HDPE Liner (Runoff Ditches) (see Note 18)	sf	415,000	415000	\$ 302,178	\$ 0.728	\$ 0.69		
	40-Mil HDPE Liner (see Note 20)	sf	3,200,000	3,200,000	\$ 1,321,513	\$ 0.413	\$ 0.40		
	Drains	lf	6,030	6195	\$ 711,166	\$ 114.80	\$ 114.80		
	Soil Cover	cy	290,000	266360	\$ 3,613,992	\$ 13.57	\$ 13.57		
	Soil Grassing								
	Seeding (Cap Areas and Plant Areas)	ac	99	99	\$ 231,965	\$ 2,343.08	\$ 2,343.08		
	Sodding (Runoff Ditches)	ac	16	16	\$ 140,720	\$ 8,795.00	\$ 8,795.00		
	Other Ancillary (see Note 40)	lump	lump	lump	\$ 184,979				
								Total Task C4b.2	TOTAL ITEM C4
								\$ 6,675,400	\$ 11,576,467
	ITEM C5. GYPSUM FILL MANAGEMENT								
	Task C5a. Phase I Slopes - Excess Placement (See Note 23)								
	OGS West Slope Fattening and Slope Pond	cy	--	17,680	\$ 69,129	\$ 3.91	\$ 3.91		
	OGS-S Cap West Dike Relocation	cy	--	3,920	\$ 23,402	\$ 5.97	\$ 5.97		
	Northeast Corner NGS-N Ramp Fattening	cy	--	2,900	\$ 17,313	\$ 5.97	\$ 5.97		
	OGS S., NGS-N Rel. Ditch S. and OGS S. at NGS-N W. Slopes	cy	--	8,405	\$ 17,314	\$ 2.06	\$ 2.06		
								Total Task C5a.	
								\$ 127,158	
	Task C5b. Phase I Excess Gyp/Soil Stockpiles (See Note 23)								
	Gypsum Stockpiles (1-10) & OGS Ditch Deficiency (see Note xx)	cy	--	11,500	\$ 43,930	\$ 3.82	\$ 3.82		
	Gypsum from OGS S. berm to Phase II NGS Slopes	cy	--	3,700	\$ 25,789	\$ 6.97	\$ 6.97		
	Gypsum/Soil mix stockpile - SCP Process Water Sump Partition	cy	--	25,000	\$ 109,000	\$ 4.36	\$ 4.36		
								Total Task C5b.	TOTAL ITEM C5
								\$ 178,719	\$ 305,877
ITEM C - CLOSURE CONSTRUCTION TOTAL								\$ 32,390,401	
See Notes on Following Page.									

**ATTACHMENT C
TABLE 1**

**CLOSURE TASK BREAKDOWN
PINEY POINT - ITN 2005002C**

Item	Closure Construction Element	Engineer's Estimate	CDM BAFO Estimate	CDM BAFO PRICE	Computed Unit Rate	CDM BAFO Unit Rate	Totals
<u>NOTES:</u> - The "Engineer's Estimate" column reflects those quantities provided by the Engineer for the Department under the ITN and BAFO. - In some cases, the values for the CDM BAFO Estimate and the CDM BAFO Price indicate task breakdowns that were computed proportionately to the Department's breakdown values for elements where CDM's BAFO quantity is less than or greater than the Engineer's estimated quantity. - CDM's BAFO values for Other Ancillary items were prorated to individual tasks on the basis of total task price. - CDM's original BAFO Estimate and Price for Sludge Excavation was revised from 5,000 cy and \$44,000 to 0 cy and \$0 per Change Order SP644-002. CDM's original BAFO Estimate and Price for Gypsum Fill was revised from 373,740 cy and \$2,232,530 to 206,500 cy and \$1,547,675 per Change Order SP644-002. - CDM's original BAFO Price for 80-mil HDPE liner was revised from \$2,054,000 to \$2,222,208 per Change Order SP644-003 for the fluctuation in liner resin costs. - CDM's original BAFO Prices for soil cover placement Tasks C2a, C2b, C2c, and C2d were reduced to allocate prorated costs from the existing lump sum prices for expedited cover soil mobilization work elements per Change Order SP644-005. - CDM's original BAFO quantity for 40-mil liner on the NGS cap area was revised from 373,000 sf and \$198,000 to 354,219 sf and \$152,645, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs. - CDM's original BAFO quantity for 60-mil liner on the OGS cap area was revised from 450,000 sf and \$ 211,800 to 419,487 sf and \$215,462, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs. - CDM's original BAFO quantity for 60-mil liner for the NGS Relief Ditch area was revised from 300,000 sf and \$ 141,200 to 292,703 sf and \$150,342, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs. - CDM's original BAFO quantity for 80-mil liner for the OGS runoff ditches was revised from 575,000 sf and \$393,875 to 524,457 sf and \$387,956, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs. - CDM's original BAFO quantity for the 60-mil liner for the OGS Transfer Pond was revised from 130,000 sf and \$61,286 to 0 sf and \$0, per Change Order SP644-006, based on elimination of this pond from the design. The 60-mil lined OGS Slope pond was added at 70,925 sf and \$36,453 based on similar BAFO unit rates and adjusting for fluctuation in liner resin costs per Change Order SP644-006. - CDM's original BAFO quantity for Gypsum Fill for the NGS-S Cap area was revised from 5,000 to 46,700 cy per Change Order SP644-007. - CDM's original BAFO quantity for Gypsum Fill for the OGS Cap areas was revised from 10,000 to 39,500 cy per Change Order SP644-007. - CDM's original BAFO quantity for Gypsum Fill for the NGS-N Relief Ditch was revised from 5,000 to 28,100 cy per Change Order SP644-007. - CDM's original BAFO quantity for Phase I Slope areas (OGS West and South Slopes) was revised from 94,318 to 111,250 cy after excluding 15,650 cy earthen material (as neat fill assuming 15% shrinkage) from the OGS south slope toe per Change Order SP644-007. - CDM's original BAFO Lump Sum Price for Other Ancillary under Task C1, Reservoir Slope Cover, was revised from \$68,000 to \$104,892 per Change Order SP644-008 based on modifications needed for the existing OGS-S compartment drain as specified by the December 16, 2005 Slope Cover Construction Drawings for the OGS Ponds. - CDM's BAFO Lump Sum Price for Other Ancillary under Task C1, Reservoir Slope Cover, was revised from \$104,892 to \$157,022 per Change Order SP644-009 based on modifications needed for the existing OGS-N compartment drain and inlet stem wall additions for the OGS-S and OGS-N compartments as specified by the December 16, 2005 Slope Cover Construction Drawings for the OGS Ponds. - CDM's original BAFO quantity for 80-mil liner for the Phase II Runoff Ditches, SCP Process Water Sump, and SCP ditches were revised from 225,000 sf and \$154,125 to 400,350 sf and \$ 321,644; from 485,000 sf and \$332,225 to 496,908 sf and \$391,062; and from 415,000 sf and \$284,275 to 415,000 sf and \$302,178 per Change Order SP644-010, based on updated quantities and fluctuation in liner resin costs. - CDM's original BAFO quantity for 60-mil liner for the Phase II Stormwater Pond was revised from 570,000 sf and \$268,714 to 409,250 sf and \$231,043 per Change Order SP644-010, based on updated quantities and fluctuation in liner resin costs. - CDM's original BAFO quantity for 40-mil liner for the SCP Cap area was revised from 3,200,000 sf and \$1,267,200 to 3,200,000 sf and \$1,321,513 per Change Order SP644-010, based on updated quantities and fluctuation in liner resin costs. - The Task Breakdown for Task C4b. was modified into Tasks C4b.1 and C4b.2 per the June 9, 2006 Dispute Resolution Agreement - Process Water Sump Cost Breakout. Task elements under Task C4b.1 and Task C4b.2 have been modified as specified under this June 9, 2006 agreement. - CDM's original BAFO earthwork quantity for the SCP was revised from 49,508 to 24,754 cy for SCP-S Phase II and SCP-N activity with the balance (i.e., 24,754 cy) being allocated and increased to 43,700 cy for the process water sump under SCP-S Phase I tasks per the June 9, 2006 Dispute Resolution Agreement - Process Water Sump Cost Breakout. - Task 5, Gypsum Fill Management, added in accordance with Change Order SP644-013, in order to provide for increased quantities of gypsum fill that needed to be either placed and compacted in addition to design quantities (Task C5a.), or material that needed to be stockpiled or placed (Task C5b.) for future works in relation to the Phase I gypsum/earthwork activities under the contract. - CDM's original BAFO quantity for Phase I (OGS) soil cover changed from 88,878 cy and \$1,121,598 to 43,000 cy and \$543,251 for the OGS ditches and 7,565 cy and \$95,574 for the OGS Slope Pond per Change Order SP644-014. - CDM's original BAFO quantity for Phase II (NGS) soil cover changed from 77,681 cy and \$981,402 to 81,200 cy and \$1,025,860 per Change Order SP644-014. - CDM's original BAFO quantities for NGS-S Cap Area soil cover changed from 37,725 cy and \$387,232 to 29,150 cy and \$290,400; and CDM's original BAFO quantity for OGS Cap Areas changed from 34,000 cy and \$348,996 to 33,600 cy and \$344,479, based on the original BAFO lump sum with a unit rate of \$11.29 / cy, per Change Order SP644-014. - CDM's original BAFO quantity for NGS-N Relief Ditch soil cover changed from 22,578 cy and \$231,754 to 27,500 cy and \$287,335, based on the original BAFO lump sum with a unit rate of \$11.29 / cy, per Change Order SP644-014. - CDM's original BAFO quantity for Phase II Slopes gypsum fill/earthwork was revised from 94,319 cy and \$194,351 to 72,995 cy and \$150,411 per Change Order SP644-014. - CDM's original BAFO quantity and the Engineer's estimate for Phase II Slopes gypsum fill/earthwork did not include a quantity for imported soil fill that was needed in addition to local soil fill to complete construction of the Phase II ditch and stormwater pond system. The calculated imported soil fill/earthwork quantity (neat) of 25,313 cy and cost of \$271,608 were added per Change Order SP644-014. - Task C3 was modified to include additional panel drains (as noted above), based on the Engineer's revised drawings, for a total cost of \$37,938 per Change Order SP644-014. - Task C3b. was modified to provide a lump sum cost of \$8,373 for repairs of the NGS-S South Slope solution cavities discovered during in the Phase II slope closures per Change Order SP644-015. - Task C3a. was modified to provide an agreed upon lump sum cost of \$90,000 for deepening of the OGS-S South Slope seepage drain per Change Order SP644-015. - CDM's lump sum price for 80-mil HDPE liner under Task C2a. for the NGS-S reservoir was revised from \$2,222,208 (as previously revised per Change Order SP644-005) to \$2,200,476 to provide a credit of \$21,732 for the Department's costs for the Engineer's professional services that were required in conjunction with liner repair work in the NGS-S compartment per Change Order SP644-015. - The lump sum cost for Other Ancillary items under Task C2b was modified from \$53,851 to \$47,593 based on Change Order SP644-016 for the Phase I outlet/piping changes. - The lump sum cost for Other Ancillary items under Task C2c was modified from \$53,114 to \$101,654 based on Change Order SP644-016 for the Phase I outlet/piping changes. - The lump sum cost for Other Ancillary items under Task C2d was modified from \$39,686 to \$144,059 based on Change Order SP644-016 for the Phase I outlet/piping changes. - The lump sum cost for Other Ancillary items under Task C3a was modified from \$97,241 to \$200,586 based on Change Order SP644-016 for the Phase I outlet/piping changes. - Task C3a. was modified to include \$2,487 for the costs necessary to regrade (cut) the existing west slope of the NGS-N compartment to match design grades at the interface with the Phase I storm water ditch in accordance with Ardaman's 1/9/2006 directions per Change Order SP644-016. - CDM's quantity for Gypsum Fill for the NGS-N Relief Ditch, Task 2d., was revised from 28,100 cy and \$167,855 to 37,860 cy and \$226,122 per Change Order SP644-017. - Task C4b.2 was modified by Change Order SP644-018 to provide costs for initial invoicing for dredge mobilization, installation of the dredge line, and initial survey/site cleanup, subject to 25% retainage to be released following acceptance by the Engineer of works removing the SCP from the process watershed under Task C4b.2. Pursuant to Change Order SP644-018 the ancillary cost was increased by \$134,500 from \$50,479 to \$184,979.							

Coates, John

From: Carter, Dean [CarterDE@cdm.com]

Sent: Fri 2/9/2007 5:14 PM

To: Coates, John

Cc:

Subject: Slurry Wall and Dredge America Cost Information

Attachments:  [20070209110422.pdf\(1MB\)](#)

John,

Attached is the information regarding the slurry wall cost backup. CDM's agreed upon contract amount with Inquip is 177,900.00. Inquip has completed the work but I haven't seen a copy of an invoice yet. There could be an invoice at the Site though.

Dean

<<20070209110422.pdf>>

SEPTEMBER 29, 2006

CDM Constructors
13300 U.S. Highway 41 North
Palmetto, FL 34221

Attention: Stephen Solters

Proposal North Cooling Pond Slurry Wall Piney Point Phosphate Stack Closure

Inquip Associates, Inc., a small business geotechnical contractor, is pleased to submit this proposal for the installation of a "Slurry Trench" at the above referenced site. We have successfully completed over two hundred cutoff walls since Inquip incorporated in 1977.

The project includes the construction of a soil bentonite slurry wall with a minimum width of 2.5 ft and permeability of 1×10^{-7} cm/sec or less. The wall is about 3,050 feet in length and 6 feet deep. The total square feet of wall is estimated at approximately 18,300 SF.

Inquip's Scope Of Work

Inquip will furnish all supervision, labor, equipment and materials, except as noted below to install the slurry wall for this project. This work will be performed in accordance with the slurry wall specifications provided in your invitation to bid dated 9-11-06.

Our proposal also includes the following items:

- Required submittals for our work
- A fully documented quality control program will be enacted for our operation

Exclusions

The following items are not included in our scope of work and must be provided by others at no cost to Inquip.

- Continuous access to and from our areas of work.
- Provide water, suitable for our work, close to our staging area for use in slurry production, (400 gpm).

- Staging area for equipment laydown, mixing and storage of bentonite. We will require an area approximately 200' x 200' for our slurry mixing and storage ponds.
- Supply and maintenance of a level, stable, dry working platform a minimum of 3 ft above the water table and at least 8 foot wide from one side of the trench for the hoe track and a minimum of 15 feet wide from the other side of the trench for the mixing area adjacent to the trench. The slurry trench should have a maximum slope of 1% along the slurry trench centerline.
- Survey, layout, we will provide the as-built drawings.
- Permits
- Locate, remove and/or protect, as needed, all utilities and manmade obstructions interfering with the installation of the slurry wall.
- Disposal of any excess slurry and trench spoil. These materials will be left within the limits of the trench. We will collapse the slurry ponds and blend any excess slurry into the existing soil.
- Final capping of the trench.

Price Schedule

See attached bid form.

Schedule

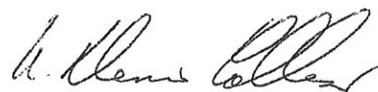
See attached Project Schedule

Assumptions and Conditions

1. This proposal will be included in an acceptable subcontract agreement. The proposal is valid for a period of thirty days.
2. Our proposal is based on mixing alongside the trench, using the soil excavated from the trench for the backfill material, no offsite borrow is included.
3. Should we be delayed by others or circumstances for which we have no control, we shall be paid for all the additional cost, including 15% overhead and 10% profit.

If you have any questions concerning our proposal or we can provide anything else, do not hesitate to contact me at 727-395-9690. We thank you for the opportunity to present this proposal and hope to have the privilege to work for you and your firm on this project.

Sincerely,
Inquip Associates, Inc.



W. Dennis Collins
Vice President

- NOT DOING CHASEY SOIL ON
TOP OF SLURRY WALL
- STAKE CENTER OF WALL

ATTACHMENT II

BID FORM

NORTH COOLING POND CAPACITY UPGRADE

PINEY POINT PHOSPHATES STACK SYSTEM
MANATEE COUNTY, FLORIDA

1. OFFER TO PERFORM WORK

Having carefully examined the Drawings and Specifications, having visited the site of the proposed work, and being familiar with the various conditions affecting the proposed work, the undersigned offers to perform the work specified for the firm prices quoted below. In submitting this offer, Bidder accepts all the terms and conditions of the Invitation to Bid and Bidder's Instructions.

Date: 9-29-06

Firm Name: INQUIP ASSOCIATES, INC.

Signed By: W. Dennis Collins
Signature

W. Dennis Collins
Printed Name

Title: VIC President

Address: 13799 PARK BLVD STE 272
SEMINOLE FL 33776

Area Code: 727 Telephone: 395-9690

FAX: 392-5734

2. SCHEDULE OF PRICES

The Schedule of Prices is included in the Bid Form. The prices quoted must be firm and shall include all tasks required to complete the work. Bidder shall carefully review and examine the method used in estimating quantities and the method of payment, and shall determine his own quantity estimates independently, before completing the Bid and the Schedule of Prices on the Bid Form. All applicable Florida sales taxes must be listed as a separate item.

(STEVE - In the dredging bid we just say "One (1) Schedule of Prices is included in the Bid Form. - What do you want here?)

3. SUBCONTRACTORS

Bidder agrees that only the following subcontractors will be used in the completion of the work, and that the subcontractors are qualified to undertake the work required.

Type of Work	Name of Subcontractor	Telephone Number
NONE		

No other subcontractors will be allowed to undertake work without the prior written approval of CDM.

4. SUPPLIERS AND MANUFACTURERS

Bidder states that he expects to use materials from the following suppliers and/or manufacturers.

Material	Trade Name Designation, Type, or Series	Name of Supplier/Manufacturer	Telephone Number
Bentonite	FC06CL 90	Federal Industrial Products	866-288-1464
Geotextile	AMOCO 2006	NATIONAL EROSION CONTROL	863-669-9631

Bidder agrees that no other manufacturers/suppliers will be used without the prior written approval of CDM.

5. SUBSTITUTE ITEMS

Substitute items which are included in the Bid shall be described in and provided as part of the supporting information for the Bid. Any substitute item, or exception to the Specifications, must be discussed with CDM for approval prior to submittal of the supporting information for the Bid.

6. CONSTRUCTION SCHEDULE

A proposed construction schedule consisting of a bar chart showing the sequence of construction activities shall be included by the Bidder in the supporting information for the Bid. The schedule shall be prepared using Microsoft Projects scheduling software or other software 100 percent compatible with Microsoft Project 98, unless approved otherwise by CDM, and shall include all aspects of the scope of work described in these Specifications and shown on the Drawings. The proposed start/completion dates for each work task shall be shown on the schedule.

Time is of the essence and the Contractor's proposed schedule will be considered in the bid evaluation. Construction of the cut-off wall must be fully completed to the extent that on-site Emergency Operations' (i.e., CDM's) personnel can complete the perimeter dike modifications and begin to dispose sludge in the converted pond within 30 calendar days after award of the Contract to the Earthwork Contractor.

The Cut-Off Wall Contractor must mobilize and begin work within 7 days of receipt of notice that the area can be released by CDM for slurry trench excavation.

7. REQUIRED SUBMITTALS

All requested information and required submittals shall be described and provided as part of the supporting information for the Bid. In particular, the supporting information for the Bid shall include, as applicable:

- (1) The Cut-Off Wall Contractor's demonstrated experience in similar type projects and resumes of his designated Project Manager and Site Supervisor(s).
- (2) The name of any proposed subcontractors. Resumes of each subcontractor's designated Project Manager and/or Site Supervisor must also be included.
- (3) Proposed construction schedule for the project in the form of a bar chart showing the sequence of construction activities, and proposed start/completion dates.
- (4) The Contractor's independent materials quantity take-off summarized on Schedule B.

8. METHOD OF PAYMENT

The basic fixed price contract entered into by CDM with the successful bidder will supercede any clause contained below if it is deemed to be in conflict with the contract.

8.1 General

Payment will be made at the lump sum prices bid for work on the Bid Form(s). No measurement for payment will be made for any part of the work.

No additional payment will be made on additional work required to replace or repair defective or damaged materials required to complete the work, or for additional work required to make repairs necessitated by damage caused by the Contractor's operation. No payment will be made for work performed outside the limits of authorized work.

If the actual quantity of any item varies from the estimated quantity because of unknown conditions or other reasons, the Contractor shall be entitled to no additional allowance above the lump sum prices bid in the Bid Form by reason of any amount of overrun or underrun of quantities for any items of work. Under no circumstances or conditions will the Contractor be paid anything on account of anticipated profits or on account of work which is not actually performed.

Partial payment shall be requested monthly by the Contractor for the estimated portion of each item completed and tentatively accepted by CDM. Final payment will only be made after all work has been successfully completed, inspected and accepted.

It should be noted that pre-construction activities (by the on-site Emergency Response Contractor) subsequent to the September 16, 2002 topographic survey will substantially alter surface contours along the perimeter of the North Cooling Pond. These activities include: (i) excavation and grading the west side slope of the NGS-N compartment to the design grades shown on the Drawings; and (ii) earthwork related to widening and raising the north, west and south NCP perimeter dikes. The bidder shall account for actual existing site conditions at the start of construction in estimating earthwork quantities and formulating the lump sum price bid.

8.2 Mobilization and Demobilization

Payment for mobilization will be made for the entire lump sum amount shown in the Bid Form upon completing the mobilization required to perform the work. The lump sum amount for mobilization shall include all costs of whatsoever nature associated with all other subsequent mobilizations that may be required for performance and completion of the work. Similarly, payment for demobilization will be made for the entire lump sum amount shown on the Bid Form upon final demobilization from the site. The lump sum amount shall include all costs of whatsoever nature associated with all previous demobilizations that may be implemented during performance of the work.

8.3 Cut-off Wall Construction

No measurement for payment for cut-off wall construction will be made. The design depth has been selected based upon conditions encountered at soil boring locations designated on the Drawings. The final cut-off wall depth profile is subject to adjustment prior to the start of construction and during construction at the discretion of the Engineer. Any such adjustment shall not constitute a changed condition unless theoretical quantities increase by more than 10 percent.

Payment for cut-off wall construction will be made at the applicable lump sum price bid in the Bid Form. The unit rates and lump sum prices in the Bid Form shall reflect all other related incidental or ancillary work shown on the Drawings, and/or required by the Specifications.

No measurement for payment will be made for ancillary work which shall include but is not limited to: (i) surveying; (ii) site preparation; (iii) temporary surface water and seepage control; (iv) access ramp maintenance; and (v) site clean-up. Payment for all ancillary work will be made at the lump sum prices bid for Ancillary Items on the Bid Form.

8.4 Progress Payments

Progress payments may be requested monthly by the Contractor based on estimated quantities of compacted work, subject to approval by CDM. CDM will withhold 30 percent of the approved progress payment quantity as retainage. Such retainage will be released monthly for areas accepted by the Engineer.

SCHEDULE A - CUT-OFF WALL CONSTRUCTION BID FORM

Item	Description	Estimated Quantity	Unit Price	Lump Sum Amount
MOBILIZATION AND DEMOBILIZATION				
A1	Mobilization	Lump	Lump Sum	\$29,000 ⁰⁰
A2	Demobilization	Lump	Lump Sum	\$15,000 ⁰⁰
CUT-OFF WALL CONSTRUCTION				
B1	Construction of Soil-Bentonite Cut-Off Wall	Lump	Lump Sum	\$128,900 ⁰⁰
B2	Ancillary Items (Surveying, Site Preparation, Surface Water and Seepage Control, Access Road Maintenance, Site Clean-Up, etc.)	Lump	Lump Sum	\$19,000 ⁰⁰
D	SAFETY TRAINING AND COMPLIANCE	Lump	Lump Sum	\$3,000 ⁰⁰
E	FLORIDA SALES TAX	Lump	Lump Sum	\$3,000 ⁰⁰
F	PERFORMANCE BOND	Lump	Lump Sum	\$NA
G	TOTAL BID PRICE	----	----	\$197,900 ⁰⁰

108,900

177,900

SCHEDULE B - CONTRACTOR'S MATERIALS QUANTITY TAKE-OFF

Material	Unit	Estimated Quantity from Drawings	Adjusted Quantity to be Purchased or Hauled*
Cut-Off Wall Construction			
Cut-Off Wall Excavation and Backfill	yd ³	1700	NA
Bentonite	lb	140000	149000
12 oz/yd ² Geotextile	yd ²	2400	2600
Compacted Clay Cap	yd ³	NA	NA
*Adjusted earthwork quantities shall account for bulking after excavation and shrinkage associated with compaction			

Carter, Dean

From: Fuleihan, N (Priority) [NFuleihan@ardaman.com]
Sent: Friday, October 13, 2006 7:03 PM
To: Coates, John; Coram, Phil
Cc: Carter, Dean; Edgar, Michael; Slovarp, Richard; Werner, Rob
Subject: FW: North Cooling Pond Slurry Wall Piney Point

John,

As a follow-up to the meeting we had in Tallahassee, Rob and I contacted Dennis Collins of Inquip to check why his unofficial preliminary quote to us had increased when he went through the CDM bidding process, and to see if he would be able to reduce his bid price. Apparently, Inquip is now very busy, and this is such a small project with potential complexities, so Dennis feels he will not be able to do much better at this stage. I requested that he provide us with potential deducts if the permeability spec were to be relaxed and if others (i.e., CDM) were to assist in preparing the site to facilitate his work while addressing one of his areas of concern relating to the existing cap fabric. Please find below his revised proposal for deducts.

I recommend that we agree to the \$20,000 deduct for the relaxed permeability spec. I also recommend that the site be prepped for Inquip for the \$16,000 deduct as long as CDM is agreeable to perform the additional prep work.

In order not to confuse and discourage Inquip through various contacts, I suggest that one or more representatives from CDM/DEP & Ardaman hold a conference call ASAP to decide on the desired course of action. Once a decision is made, CDM could then contact Inquip to finalize the agreement.

Nadim F. Fuleihan, Sc.D., P.E.

Sr. Vice-President, Principal

Ardaman & Associates, Inc.

Tel: 407- 855-3860 Cell: 407- 467-1180

From: dennis/inquip [mailto:collins@inquip.com]
Sent: Friday, October 13, 2006 9:08 AM
To: Werner, Rob
Subject: North Cooling Pond Slurry Wall Piney Point

As per our recent discussions we propose the following:

1. We offer a deduction of \$20,000.00 from our bid if the permeability requirements are relaxed slightly to an average of 3×10^{-7} cm/sec with 5×10^{-7} max.
2. We offer a deduction of \$16,000.00 from our bid if the existing cap fabric is either cut by trenching through it with a ditch witch or similar machine or if it is removed when the raising of the dike is performed. We feel that it is important to cut or remove it prior to the excavation of the slurry trench since most likely if it is not removed we will rip it out while trenching and cause the top 3-4 feet of the trench to fall in and widen to greater than the 30 inches. This is a problem on a six foot deep trench.

Thank You

W. Dennis Collins
 Inquip Associates, Inc.

2/9/2007



DREDGE AMERICA, INC
9555 NW HIGHWAY N
KANSAS CITY, MO 64153

Invoice

Date	Invoice #
1/5/2007	1910

BILL TO
Stephen Solters CDM Constructors, Inc. 13300 US Highway 41 N Palmetto, FL 34221

P.O. NO.	TERMS	PROJECT

QUANTITY	DESCRIPTION	RATE	AMOUNT
	South Cooling Pond North Compartment		
100%	Mobilization	99,500.00	99,500.00
0%	Demobilization	30,000.00	-
80%	Furnish and Install Dredge Pipeline	25,000.00	20,000.00
0%	Removal and Transfer 170,000 cubic yards	498,100.00	-
75%	Survey, Site Clean-up, etc.	20,000.00	15,000.00
0%	Safety Training	2,000.00	-
	Retainage		(12,105.00)
	Schedule of Values 1		
Wire Transfer to Gold Bank: Route # 101102315, Acct # 1003010457		Total	\$ 122,395.00

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