

Post Award Negotiated Terms
February 21, 2005

The Department of Environmental Protection (DEP) and CDM Constructors Inc. (CDM) entered into negotiations for contract to manage and close the Piney Point Phosphates Phosphogypsum Stack System and to consume process water within the system. As part of the contract negotiations, the DEP sought clarifications to CDM's Best and Final Offer (BAFO) dated December 1, 2004. This document represents the total mutual agreed clarifications to CDM's BAFO.

Qualifications

- DEP's Subject matter expert has confirmed that CDM has met the required qualifications for Operator by having Paul Roberts on its staff. Also, CDM has identified George Curry as the On-Site Operation and Maintenance Manager.
- CDM is committing to making the transition in contractors with no disruption in the work efforts at the site. CDM will retain if possible key existing staff members from the site including the Operations Manager - Ivan Nance, Maintenance Supervisor – Elijah Johnson, and the gypsum stack runners and other field personnel that are interested in staying with the project. Should CDM retain Elijah Johnson, he would replace Wayne Winner as Lead On-site Operation and Maintenance Superintendent.
- CDM plans to utilize Ken Tate as their grassing subcontractor, and DEP's Subject matter Expert has stated that CDM could either use Tate or Keller Grassing as they both meet the required qualifications.
- CDM has identified Harley Frady as Moretrench's earthwork superintendent, and Michael Penny as Moretrench's project manager.

Process Water Consumption

- CDM acknowledges that the contract contains a performance-based standard for ammonia nitrogen loadings discharged from the site of no more than 20 pounds per day as a rolling 30-day average. CDM also acknowledges it did not utilize the outfall 003 monitoring data supplied by DEP in developing its proposed water management plan. CDM also acknowledges its lump sum water management cost proposal was intended to meet the performance based standard at the cost quoted. Should CDM modify its water consumption plan and methods to achieve required consumption requirements and/or discharge loading limitations, no additional compensation will be requested as long as the historical data on ammonia concentrations in the lime treated water discharge that CDM used to formulate the treatment methodology is representative of what has been achieved at the site for the reported discharge rates.
- CDM will conduct an assessment to confirm the projected water evaporation rates that will be realized from the spray evaporation and the spray irrigation water consumptive methods. In addition, the disparity between the wet summer and dry winter climatic conditions will be assessed, not only to adjust for this seasonality of the evaporation rates, but also to quantify the volumes of rainfall and run-off that can be used as dilution of the ammonia and conductivity to acceptable discharge levels during the first two years of the contract. The assessment will determine if RO is needed to achieve performance based 20 pounds per day ammonia nitrogen discharge loading and the conductivity standard specified in the Administrative Order during the

first two years of the contract. Conductivities will be controlled by dilution with RO permeate, segregated rain and surface run-off. As part of this assessment CDM may evaluate expansion of the spray evaporation system or use of RO polishing of the double lime treated water.

- Test work has indicated that by maintaining a high pH during spraying a significant increase in ammonia evolution could be realized. Also, CDM has carried out a few exploratory tests with the aim to precipitate struvite as a way to remove ammonia without atmospheric release. CDM may investigate on a small scale, (lab and pilot batch tests) to determine if this methodology has merit. Any such experimentation will be at CDM's expense.
- CDM's original flow sheet shows that RO reject is treated in the second stage lime treatment, and that after liming to a high pH and after spray aeration a portion of this stream can be discharged and the remainder either spray evaporated again or recycled to the front of the RO pretreatment section. Any recycled double limed aerated material that mixes with the incoming process water, acts as a base and incurs no incremental cost of treatment. However, as expected, the capacity of the overall system is reduced due to the recycle, but that does not materially affect the costs if the system is not fully at capacity. However, as no discharge of lime treated water can occur after year two, all the material cannot be recycled as the chloride and sodium will continue to build up in concentration. Thus a portion of the recycled stream will be disposed of by spray evaporation in designated impoundments or by spray irrigation on lined grassed areas. CDM acknowledges that that no such effluent streams will be allowed to be injected back into the stack. A revised treatment system flow schematic is attached.
- CDM will evaluate the rate of soluble salts build up that should start to occur in the final 3 years of the contract, and consider constructing a separate lined sump where a segregated slip-stream of concentrated brine solution could be evaporated to dryness.
- CDM states that spray aeration/evaporation of double limed water are likely to continue through the end of the contract period. Spray aeration/evaporation will likely take place in the NCP for treated water, the existing second stage ammonia aeration ponds, other existing process water ponds or the proposed lined sump pond, and additional evaporation ponds that may be constructed by CDM if required. The 208 million Gallons listed in the BAFO for years 3-5 includes spray evaporation of process water as well as treated water, or spray irrigation of double lime treated water. The treatment of process water prior to aeration has been included in the quoted price. Water spray evaporated in the NCP will meet or exceed the existing water quality in that cell. Other process water collection areas such as the lined process water sump (SCP-S) may be used to spray evaporate untreated process water. Water that will be used for spray irrigation will be ponded rainwater applied only as needed for grass maintenance on unlined slopes, and perhaps treated water on lined grassed areas and other flat areas in such a manner and at such locations that there would not be a concern about groundwater impacts beyond the approved groundwater zone of discharge. Spray irrigation will be controlled at average rates no greater than 0.3 to 0.5 inches per week and to dry weather spells, or as otherwise approved by the Engineer. If treated process water is used, the application rate will be limited so as to not create a buildup of salts that would be detrimental to the vegetation or to runoff quality. Spray irrigation of the amended gypsum side slopes will be controlled to what is needed to promote grass growth and to avoid recharge into the unlined stack slopes.
- During years 3-5 CDM may utilize the double-lime and aeration system to treat reject from the RO system. The aerated supernatant from the liming of the RO reject will be recycled to the RO, thus is included in the RO discharge volume and cost. Only RO permeate will be discharged in years 3-5. As mentioned above, CDM believes that spray evaporation of process

water in the as yet unlined cooling pond cells or lined sump is an alternative that may be implemented once it has been properly evaluated. CDM will also likely utilize the North Cooling Pond for spray evaporation until it is closed. At current sewer disposal user rates, CDM does not plan on transferring water to Manatee County WWTP via the sewer.

- CDM acknowledges that when well is added to any RO permeate discharge to achieve ionic balance, that no more 25,000 gallons per day of well water will have to be added.

Closure Construction

- CDM in its BAFO outlined the closure construction scope and associated schedule(s) that provided for closure of the NCP pond in 2007. CDM will evaluate deferral of cooling pond closure in conjunction with water management requirements during 2005 and 2006. CDM may defer the NCP closure if it would be beneficial as a sludge management and spray evaporation basin. The spray evaporation system located in the NGS-N compartment could be relocated to the NCP to allow spray evaporation to continue after stack closure. CDM may postpone closure of the NCP until Year 4 or 5 if needed to accommodate water evaporation/sludge management, but CDM acknowledges it will have to manage and treat any rainfall-runoff that may become contaminated as a result of postponing closure of the NCP.
- CDM's schedule for placing cover on the lined reservoir slopes is as follows:
 - NGS-S: 1st and 2nd Qtr 2006
 - NGS-N: 2nd Qtr 2009
 - OGS-S: 1st and 2nd Qtr 2008
 - OGS-N: 3rd and 4th Qtr 2007

Cost / Contract Issues

- CDM and DEP desire to have an orderly transition from the Receiver's Operation and Maintenance and Program Manager to CDM. It is anticipated there will be a 30-day transition of the operation and maintenance and water treatment functions (double lime system) over to CDM with CDM taking full responsibility for these functions after 30 days.
- CDM states that the following cost items were utilized in preparing its BAFO and pricing proposal: Electricity - \$0.063/KWHr, Liner Resin - \$0.64 per pound, diesel fuel - \$1.50 per gallon, lime - \$140.00 per ton, 3% escalation rate and 7% markup on Comanco and 9% markup on Moretrench work.
- The CDM BAFO contained a typographical error related to construction of the process water sump. CDM acknowledges it has included the cost of the process water sump in the South Cooling Pond as shown in the conceptual closure design in the BAFO and ITN documents.
- Because of faster than expected stack dewatering, the Engineer and CDM agree that the total net quantity of ponded & pore water that will have to be consumed during the term of the contract is on the order of 950 million gallons (MGal), i.e., less than the 1000 MGal assumed in the BAFO, with about 712.5 MGal to be consumed during the first 2 years and 237.5 MGal during Years 3 through 5. CDM agrees to an adjustment in the lump sum price for water treatment for the lower consumption quantity based on the overall unit price for water treatment quoted in the BAFO.

- CDM acknowledges that some of contemplated earthwork closure construction has, or will be completed by others prior to award of the contract and CDM assumption of responsibility for the closure construction work. CDM agrees that an adjustment will be made to the lump sum closure price based on the work completed by others. This adjustment will be based on changes in quantities determined from detailed design drawings and representative topographic maps. The adjustment to the cost shall be determined as stipulated in the Contract in one the following ways, in the following order of priority, as applicable:
 1. by unit prices stated in the Contract or subsequently agreed upon;
 2. by mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation by the Engineer and Department; or
 3. by cost and a mutually acceptable fixed or percentage fee.