



R2E2 Update

Stakeholder Committee

December 12, 2013





Agenda

- **R2E2 Updates Since Last Meeting**
 - 30% design workshops
 - Project scope reductions and increases
 - Cost estimate
- **Fluidized Bed Incinerator**
 - Bids received
 - Video Example
- **Contract 33 Primary Switchgear and Utility Relocation**



Agenda

- **Schedule—What's next?**
 - Major equipment pre-purchase and pre-select
 - Final design
 - Construction
- **Open Discussion**



30% Design Workshops

There are 14 workshops planned and the team conducted nine workshops, received comments, and incorporated changes in the following unit processes:

- Ash Dewatering
- Sludge Storage
- Polymer
- Primary Switchgear
- Centrifuge, dryer feed and scum
- Biogas engines
- Septage receiving and high strength waste
- Non-process areas
- Digestion and Biogas storage



Project Scope Reductions/Increases

The more significant change items are as follows:

- FBI bids received lower than estimate = decrease
- Shifted digesters to eliminate fuel storage facilities = decrease
- Eliminated requirement for spare centrifuge scroll = decrease
- Added boiler in lieu of upgrade and re-locate existing = increase
- Added back H₂S and Si (tentative) gas cleaning = increase
- Added new storage building = increase
- Nutrient extraction (pending) = increase
- Other pending changes subject to zero delta review



Cost Estimate

The team continues to update the cost estimate:

- Facility Plan = \$147,000,000 in 2011 dollars
- BODR (includes increased FBI and dryer sizing)
 - = \$124,000,000 in 2011 dollars
 - = \$144,000,000 in 2016 dollars (midpoint of construction)
- Current estimate including FBI reductions and Nutrient extraction
 - = \$145,000,000 in 2016 dollars



Fluidized Bed Incinerator Procurement

- Two responsive bids were received and evaluated
- Bid pricing was below engineer's estimate
- Recommendation for award pending - targeting December commission meeting
- Video of FBI



Contract 33

Primary Switchgear and Utility Relocation

Initial contract to transition GBF electrical supply into new switchgear, relocate utilities and access roads, and construct new storage building

- 60% review workshop conducted December 6, 2013
- Final Documents scheduled Jan. 2014
- Bid and Award of contract – Spring 2014



Procurement Schedule

Issue pre-purchase RFP to qualified vendors:

- Primary Switchgear: Issue Dec. 2013; award Jan. 2014

Issue pre-selection documents to qualified vendors:

- Co-generators package: Issue Dec. 2013; Select Jan. 2014
- Centrifuges package: Issue Dec. 2013; Select Jan. 2014

Issue contractor pre-qualification documents for
Contract 33 – Dec 2013



Design Schedule

- Analysis of nutrient (Phosphorus) treatment options technical memo – Sep. 2013, and follow-up through Dec. 2013 – Nutrient extraction pre-design authorized and to commence Jan 2014
- Remaining 30% design review workshops to complete Jan. 2014
- Process Hazard Analysis - Feb. 2014
- 60% design review workshops (Contract 34) March-May 2014
- Design complete Fall 2014, construction NTP Spring 2015



Open Discussion



Next Stakeholder Meeting

Spring 2014



R2E2 Update

Thank you for coming!