Cooling Tower Fill and Drift Eliminator Replacement

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Cooling Tower Function

- The Cooling Towers Serve the same Function as the Radiator in your Car
- Both Remove the Unused Heat from Power Production
- Just like the Radiator in your Car they are Important for Efficient Operation of the Machine
Why Repack

- Material in Three Towers is Original and Degrading due to Age
- Material Supports in some Areas have given away (Fiberglass)
- Material and Supports have been Damaged over the Years due to Ice, Wind, Chemicals, and pH of the Water
- Fill has been Broken and some has Delaminated
Scope of Project

- Remove all of the Old Fill and Drift Eliminators and Dispose of Material (Asbestos Cement)
- Remove Old Fiberglass Fill Supports
- Install New Fill Support Grids and Fill (New Material is PVC)
- Install New More Efficient Drift Eliminators (PVC)
- Repack 3 Cooling Towers, One in Fiscal Year 2010 and Two in Fiscal Year 2011
Tower Fill Material (Each Tower)

- About 250,000 Splash Bars – 6’ Long by 4” Wide
- Over 2000 Support Grid Sections
- 21000 Drift Eliminators, 5’ by 7”, and their Supports (to be removed)
- The Removed Material has to beHandled as Asbestos
- About 40 Semi Truck Loads will need Disposal at a Designated Asbestos Landfill
Repacking a Cooling Tower

- First, the Support Grid is Installed from the Bottom Up
- The Splash Bars (Fill) are then Installed from the Bottom Up, Inside to Outside and follow the Support Grid Up
- Then the Drift Eliminators are Installed in Sections that the Fill has been Completely Installed
Cooling Towers Wear Out

- A Repack is a Normal Process in the Life of a Cooling Tower
- There are Several Items that can Affect the Longevity of the Fill and Tower
  - Age of material
  - Type of tower
  - Materials used in construction
  - Weather (ice, wind, and, sun)
  - Water Chemistry (chlorine and Ph)
- Plants of our Generation have or are Currently Repacking Cooling Towers at this Time (River Bend Current)
Cost of Repacking a Tower

- Estimated Cost is $2.4 Million per Tower
  - Fiscal Year 2010 – $ 2.4 Million (one tower)
  - Fiscal Year 2011 – $ 4.8 Million (two towers)
- This is based on Previous Costs when the Last Two Towers were Repacked in 2001 and Adjusted for Inflation.
- Bid will be a Single Bid for both Fiscal Years