

# ***Reinhold Environmental Ltd.***

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***2007 APC Round Table & Expo  
Presentation***

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***July 8-10, 2007  
Chattanooga, TN  
Hosted by TVA***

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# Mobotec USA

Dr. Brian Higgins

VP of Technology

July 9, 2007

# Mobotec

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- Boosted Over-fired Air Systems (ROFA)
  - » Boost fan for OFA
  - » Deep staging
  - » De-NO<sub>x</sub> & De-SO<sub>3</sub>
  - » Combustion improvement
- Boosted SNCR systems (Rotamix)
  - » Boost fan for SNCR
  - » Ammonia/Urea for de-NO<sub>x</sub>
- Boosted Sorbent Injection Systems
  - » Boost fan for FSI
  - » with limestone for de-SO<sub>x</sub>
  - » with MinPlus for de-Hg

# Mobotec FSI (SO<sub>x</sub> Reduction)

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- Three commercially operating installations
  - » Sweden (20 MW x2)
  - » Indiana (67 MW)
- Eleven FSI commercial installations in progress
  - » Minnesota (75 MW x3)
  - » Indiana (120 MW x3)
  - » North Carolina (20 MW x4)
  - » China (120 MW)
- Commercial sorbents
  - » Limestone CaCO<sub>3</sub>
  - » Calcium hydrate Ca(OH)<sub>2</sub>

# Other Sorbents

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- Benthamite (de SO<sub>x</sub>)
  - » Calcium hydrate + iron oxide + clay
  - » 70% SO<sub>x</sub> reduction at Ca/S ratio of 2.0
  - » ESP Improvement
  
- MinPlus
  - » Recycled paper sludge
  - » FSI mercury capture
  - » Five commercial installations in progress
    - 400 MW
  - » No ESP issues
  - » No slagging issues

# NETL Thief Carbon

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- Thief Carbon
  - » Partially burned coal is extracted from the boiler
  - » Then injected as PAC for mercury control
- Initial Testing
  - » We made carbon at WRI
  - » We injected carbon at SaskPower (slip stream)
  - » Initial results were good
- Full Scale
  - » Probe procured
  - » Testing starts in August