

Worldwide Pollution Control Association

WPCA-
Southern Company
Mercury Seminar
October 30-31, 2012

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Mercury and Scrubber (Wet & Dry) Panel

- **Steve Wolsiffer – Reinhold (moderator)**
- **Greg Bielawski – Babcock & Wilcox**
- **Gary Blythe – URS**
- **Philip Elliott – Steag Energy Services**
- **Connie Senior – ADA-ES**

Discussion Topics

- **Approaches to Hg Control (consider Bituminous / Blend / PRB as separate cases)**
 - **ESP / WFGD**
 - **SNCR or SCR / ESP / WFGD**
 - **BH / WFGD**
 - **SNCR or SCR / BH / WFGD**
 - **DFGD (SDA or CDS) / BH**
 - **SNCR or SCR / DFGD (SDA or CDS) / BH**
 - **For all the above ESP cases : Addition of a BH in Toxecon configuration**
- **Unit Size (Flagship, Small/Old, Shoulder)**
- **Need to look beyond MATS to holistic solution (son of CSAPR, BART, NSR, NAAQS, etc)**
- **There is obviously no one size fits all solution**

Discussion Topics (cont'd)

- **Control Technologies**
 - **Halides Addition (Bromine, Chloride, Iodine)**
 - **With Fuel / In Flue Gas / Point of Injection / Corrosion Impact**
 - **SCR Catalysts**
 - **With high Hg oxidation**
 - **Maintaining SCR Hg oxidation vs Nox removal**
 - **WFGD Capture**
 - **Re-emission vs ORP**
 - **Re-emission additives (B&W Absorption Plus™, Nalco MercControl, TMT, etc)**
 - **URS/Gore product**
 - **Steag PAC into WFGD**
 - **Shaw EMO**
 - **DFGD (SDA & CDS) Capture**
 - **Refined Coal for Hg and NOx reduction**
 - **Powdered Activated Carbon Injection**
 - **Halide addition plus PAC**

Discussion Topics (cont'd)

- **Maintaining / Enhancing Fuel Flex**
- **Validity of Tests to determine feasibility of control method**
- **Differences between Activated Carbon products**
- **Need for SO₃ removal prior to PAC with HL, Trona, SBC, or SBS**
- **For PAC/DSI, injection location (ie, upstream/downstream of AH) & availability of sufficient residence time, need for CFD modeling**
- **Concrete Friendly Sorbents (eg, non-carbon, passivated carbon)**
- **Antagonistic and Synergistic Impacts**
 - **Impacts on other systems in the AQCS train**
 - **PAC / Sodium sorbent / Hydrated Lime vs ESP emission**
 - **Wastewater Treatment (Se, etc)**
 - **Ash & FGD Waste (By-product vs landfill)**
 - **Corrosion (eg, AH, FGD)**
- **Need to maintain current ESP outlet emission if < 0.03 lb/MBTU**

Questions / Case Studies / Experience Base

