

REINHOLD ENVIRONMENTAL Ltd.



**2013 APC Round Table
& Expo Presentation**

July 8-9, 2013, in St. Louis, MO / Hosted by Ameren

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WorleyParsons

resources & energy

Reinhold APC/PCUG Conference

St. Louis, Missouri

July 9, 2013



ACI/DSI Questions

- ▶ A lot of excess reagent is generally needed for a DSI system to meet the high SO₂ removals that we are beginning to see required. Is there any experience with recycling material to improve utilization?
- ▶ Has there been any inroads into the beneficial use of sodium based by-products?



ACI/DSI Questions

- ▶ If an Owner follows the System Suppliers guidelines for conveying pipelines for DSI systems, are we assured to operate trouble-free without pipeline and nozzle pluggage?
- ▶ What practical guidelines (like strategic pipe flanges for dis-assembly) can Owners provide to the next round of future users?

ACI/DSI Questions

- ▶ As ACI has increased in popularity, have new novel reagents/sorbents have been developed?
- ▶ Have similar novel reagents or sorbents been developed for acid gas removal with DSI?



ACI/DSI Questions

- ▶ Have there been other recent examples of “smoldering ash” from PAC injection in PJFF hoppers or ash silos since the situation at Presque Isle?
 - Has a root cause been identified in these events?
 - What are the Industry’s “Best Practices” to prevent “smoldering ash”?
 - What recommendations are PAC suppliers providing?
 - Are any of the PJFF suppliers recommending smoldering ash detection or remediation? What is considered? What is effective?



ACI/DSI Questions

- ▶ What control strategy is recommended for ACI/DSI injection at low loads when sorbent dispersion may not be as good as at higher loads? What signal is used for feedback at low load operation?
- ▶ What is the recent experience with milling sorbents to a smaller particle size with higher surface area to achieve higher removal efficiencies and reduce the sorbent consumption rate?



ACI/DSI Questions

- ▶ What are DSI/ACI system capital costs and installation costs averaging?
- ▶ How many DSI/ACI systems are In-Service? Installed? Planned?
- ▶ Has the EPC approach been used to design and install DSI/ACI systems? What are the typical approaches Owners have used?



ACI/DSI Questions

- ▶ From the Owner's perspective, what component(s) of the ACI/DSI systems are the most troublesome to maintain and which components are the most trouble free?
- ▶ From the Owner's perspective, what changes would you make to your ACI/DSI systems if you had the opportunity to "do it all over again"?



Awards

- ▶ In the spirit of the title of our panel discussion, an award will be given to a panelist for the best example shared in each of the following categories. As with any technology, there are always highlights to share along with lessons learned. No specific names of plants or owners unless you feel comfortable providing this information. Winners of each award will be decided by the audience.
 - **The Good**
 - What are the best performance stories? What were the conditions?
 - **The Bad**
 - What are some of the horror stories? How can we optimize the system (design & operation)? Has anyone experienced higher than expected annual chemical consumption?
 - **The Ugly**
 - Testimonials - An award for the worst horror story. Line pluggage, forced outages, etc.

