

DSUA Opportunities

DSUA strengths and Opportunities

Strengths	Opportunities
Only association focused solely on dry scrubbers	International focus
Highly regarded annual meeting	interim activities between annual meetings
Strong board of directors	Growing coal fired market in SE Asia
Support by vendors	New applications such as carbon removal from ponded flyash
Support from end users	

Dry Scrubber- Mcilvaine Support Services

Mcilvaine Services Relative to Dry Scrubbers

- Mcilvaine is contracted typically by suppliers but occasionally by organizations or litigants to help them determine markets and the share of those markets held or to be held by various technologies and companies
- Another function is to help suppliers reach end users with alerts, project databases, webinars and recommendations relative to promotion and communication
- One of the challenges encountered is the silos erected between industries and technologies and even between divisions within the same company
- Mcilvaine can assist suppliers in improving communication and better achieve the desired goals
- Mcilvaine publishes the FGD, Scrubber, precipitator, fabric filter, Nox, valve, pump, monitoring and other services as well as market reports and project tracking
- Mcilvaine includes Dry Scrubber activities as part of the FGD and Scrubber Knowledge Systems, Coal fired Boiler Decisions, and Utility E Alert and Tracking systems

Summaries and links in scrubber knowledge system covering industrial applications

- [Hitachi Zosen Inova utilizes lime based CFB scrubber for WTE applications](#)
- The HZI SemiDry process employs the principle of the circulating fluidized bed for efficient removal of acid gases by adsorption with hydrated lime. Recirculation of reagent maximizes reagent use and provides excess reagent to capture contaminant peaks. In addition, activated carbon or coke can be injected for removal of volatile organics and metals. Cited advantages are
 - Low emissions with a high flexibility relative to load or flue gas contaminant changes
 - Minimized use of lime as widely-used low-cost reagent
 - High energy efficiency compared to lime-slurry based systems
 - High availability and low O&M cost due to simple design and operation
 - Proven technology with long industry record of success

Coal Fired Decisions includes FGD services and summaries with links to dry scrubber info such as thermal beneficiation of ash

[SEFA upgrades flyash and eliminates an environmental challenge](#)

SEFA has successfully demonstrated the viability of STAR® Technology through commercialization at three STAR® facilities. The most recent STAR® Plant at the Winyah Power Station has the ability to process 100% ash reclaimed from ponds. The waste heat generated from the STAR® Process is used to dry the pond ash thus making the entire plant a self-sustaining closed loop system. Further, the plant can switch at a moment's notice from the reclaimed ash to 100% dry ash produced at the power plant, or any blend of both. This flexibility allows full load operation at all times without any dependence on operation of the power generation plant now or in the future. This unique independence is particularly important as the supply of fly ash for the construction industry continues to dwindle as more coal fired generation is taken off line. At the same time the market for high quality fly ash continues to grow. Utilizing reclaimed ash from ponds and landfills will provide continuous feed material and ensure uninterrupted supply for customers.

Utility E Alert has details such as dry scrubber being installed at Duke for flyash carbon reduction

After exiting the reactor, the flue gas with entrained flyash enters a hot cyclone where the majority of solids are separated from the gas and recycled back to the reactor for temperature control. The flue gas with entrained flyash leaving the hot cyclone is conveyed to an air preheater, which is designed to preheat the incoming process air (by heat recovery) or cool the flue gas/solids mixture, then passes through a flue gas cooler. The cooled flue gas and flyash then passes through a baghouse for product capture, and then exhausts to a dry flue gas desulfurization (FGD) system (using hydrated lime as a reagent) to reduce SO₂ emissions. The clean FGD exhaust will then flow to an induced draft fan to be discharged to the atmosphere through a stand-alone stack. The captured flyash is pneumatically transferred from the baghouse to either the storage dome or the loadout silo, each equipped with a bin vent, then to a truck loadout station.

45 articles about DSUA in the tracking system

. FGD and DeNO_x NEWSLETTER August 2017 No. 472 DSUA Conference, September 19-21, 2017 – Philadelphia, PA The conference will start with two very applicable plant tours. Logan Generating AM Tour. The Logan Generating Plant, located on the Delaware River in Logan Township, ...

Terms matched: 1 - Score: 61 - 30 Aug 2017 - URL:

[http://www.mcilvainecompany.com/utility/subscriber/Newsletter/2017 FGD/fgdnl472/temp.htm](http://www.mcilvainecompany.com/utility/subscriber/Newsletter/2017%20FGD/fgdnl472/temp.htm)

4. [temp](#)

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5. [temp](#)

... FGD and DeNO_x NEWSLETTER September 2017 No. 473 **Broadening the DSUA Reach In the future, there will be more dry scrubber systems installed in the rest of the world than in the U.S. Also, there is a great deal of wisdom to be garnered from operators ...**

Mcilvaine international activities

- Coverage is now provided for dry scrubber activities in every country and industry. Clients include Longking and other suppliers
- Mcilvaine will be an organizer and speaker at a half day session at Powergen to advise U.S. companies on ways to reach the international markets in S.E. Asia and other hot markets
- A consortium of companies interested in dry scrubber components and reagents could be one of the routes to pursuing the international markets and leveraging the U.S. experience
- This consortium could be used as the example of how to proceed for the session.
- The potential consortium members could meet during this conference in November in New Orleans

Dry Scrubber Resources

Decisions and Decision Makers

category	segments
System technology	Dry scrubbing vs wet scrubbing vs or including dry injection
Industry	power from coal, biomass , waste; furnaces in steel, glass non ferrous metals, , kilns for cement, aggregate; coke ovens, incineration
products	Systems, reagents, scrubbers, fabric filters, precipitators, valves, pumps, controls, conveyors. bins
services	Consulting, engineering, operation, maintenance
geographies	Countries, regions, continents
organizations	Owners, suppliers, associations, publishers, government agencies, exhibition organizers
Job functions	Management, sales, design, research, engineering
Pollutants	SO ₂ , SO ₃ , mercury, HCl, HF, VOCs, other acid gases

System Technology

- Dry scrubbers typically utilize lime or sodium compounds to capture acid gases without use of a scrubbing liquid. The basic segmentation is spray drier vs fluid bed.
- The spray drier can be supplemented by direct sorbent injection to eliminate condensation limitations
- Due to the need to remove other pollutants such as mercury and VOCS there may also be carbon injection or use of a downstream mercury membrane module
- Direct sorbent injection is a lower capital cost, higher operating cost option.
- An overlooked but competitive option is the use of lime and a venturi wet scrubber
- Catalytic filters which use embedded catalyst and dry sorbent injection are rapidly gaining market share
- All of these options need to be considered before one is selected

Decisions and Decision Makers

category	segments
Industry	power from coal, biomass , waste; furnaces in steel, glass non ferrous metals, , kilns for cement, aggregate; coke ovens, incineration
Coal fired power represents the biggest market but waste to energy and cement are major markets. Each major industry has various associations, conferences and magazines devoted to the industry	
products	Systems, reagents, scrubbers, fabric filters, precipitators, valves, pumps, controls, conveyors. bins
The scrubber is no better than the slurry control valve or the reagent being utilized. The capture of the sulphates in addition to the dust requires special fabric designs. If sufficient high quality lime is not available a large power plant could opt for a wet limestone system	
services	Consulting, engineering, operation, maintenance, other
Consultants, operators, operators and maintenance personnel benefit from interfacing with each other and with the system and product suppliers	

Decisions and Decision Makers

category	segments
geographies	Countries, regions, continents
<p>The largest dry scrubber activity is now in China. There are dry scrubbing installations in almost all countries now. The experience in one locale needs be made available to those in other locations</p>	
organizations	Owners, suppliers, associations, publishers, government agencies, exhibition organizers
<p>DSUA, hydrate users, DOE, EPA, Powergen, Power, , IEA, EPRI, PCA, IEE and industry oriented groups need to interface with each other but also with product oriented groups such as NLA, VGB, ICAC, IFN, INDA, FiltXPO, World Filtration Conference</p>	
Job functions	Management, sales, design, research, engineering
<p>There needs to be communication within the supplier corporations to insure that research and engineering is focused on the most profitable market opportunities. Large end users are improving their communications among plants and personnel at those plants</p>	
Pollutants	SO ₂ , SO ₃ , particulate, Nox, mercury, HCl, HF, VOCs, other acid gases
<p>The development of the catalytic filter which removes particulate and acid gases while reducing Nox is indicative of the need for a holistic approach</p>	

Decision Making Tools

tools

Category	DSUA	other
Background evidence such as case histories and presentatons	Proceedings of annual conference with website access	Thousands of additional papers and case histories are generated
Analysis of evidence	Presentations at the conference	Presentations at conferences around the world
Debate and Discussion	Outstanding debate and discussion at the conference	Much more debate and discussion is needed at various conferences around the world
Coordination	DSUA provides valuable coordination within the geographical and monetary limits	Need to interface with all those enterprises around the world that have additional tools

Expanded Role for DSUA

- An informal group of international companies would provide the support to supplement the DSUA activities while closely coordinating with DSUA
- This group would supervise the quarterly webinars, a monthly newsletter, and the compilation of intelligence in the form of full papers but also summaries of articles and case histories residing on other websites including magazines such as Power Engineering
- The group would also coordinate with conference organizers and chair sessions on dry scrubbing at conventions such as India Sox-Nox, Powergen Asia, VGB conferences
- The group could utilize the dry scrubber intelligence already gathered by Mcilvaine or choose not to do so
- The International Dry Scrubber Consortium members would all pay for at least one annual DSUA conference attendee

Members

- The Consortium would be international reagent suppliers such as Lhoist and Solvay, system suppliers such as Longking, Thermax, Boqi, Feida, Hamon, Andritz, GEA etc.
- Component suppliers would be slurry valve, nozzle, atomizer, controls, fabric media and similar companies.
- The quarterly webinar subject selection would be determined by the group and those companies willing to fund a webinar
- For DSUA the only potential changes would be more attendees and greater revenue.

Precedent

- A number of conferences include two meetings. One might just be for owners and the other for everyone
- Hydrate Users is one of many organizations which are formed by competitors
- A number of conference organizers combine special user group meetings with the broader conference activity. The annual Power exhibition includes the PRB Coal User Group conference
- Magazines and associations are finding new ways to interface. Most magazines such as Power Engineering now provide free access to feature articles in past issues. These accessed articles also display advertising, so the greater the free readership the better from the publisher standpoint

Consortium Structure

- The consortium could start out as an informal group of companies who have periodic on line meetings.
- It would be open to any company willing to pay for one registration at the next DSUA or has attended the last DSUA
- One initiative would be periodic webinars in English but also Chinese e.g.

CBI	Chinese	Mercury Removal
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- Initiatives could include coordination at conferences and exhibitions e.g special emphasis on dry scrubber consortium opportunities at the half day Powergen session or some info about the consortium published by the organizers of the India Sox, Nox conference.
- Members could share thoughts on various offshore markets