

REINHOLD ENVIRONMENTAL Ltd.



**2014 APC Round Table
& Expo Presentation**

July 14-15, 2014, in Louisville, KY / Hosted by LG&E/KU

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Holistic Approaches for Integrating MATS, CSAPR, CCR, ELG, and Beyond

APC/PCUG Conference
July 14-17, 2014
Louisville, Kentucky

Chaired by: Gary Tonnemacher, WorleyParsons
Panelists: Joe Hantz, Entergy;
Bill Kennedy, Duke Energy;
RyanThomas, Southern Company



Why are we here?

To make MW Safely

Why are we here?

To make MW Safely in Compliance with the CAA

... and RCRA

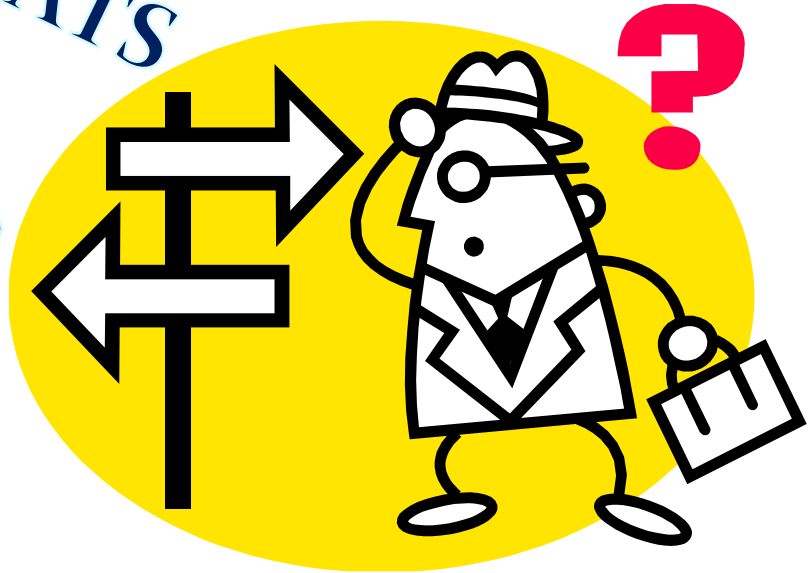
... and the CWA

CSAPR

ELG

CCR

MATS





Fuel Spec's – If we can buy it, we will burn it.

- Ash?
- Chlorides?
- Sulfur?
- Metals?

Testing and Process Modifications:

Air – Hours

- Up the stack and we are done.

Water – Weeks

- Two – four days in the absorber (depending on load)
- Four to eight days in Physchem/Biochem
- Eight to twelve days in Wetlands
- Fourteen to twenty one days in Ash Basin

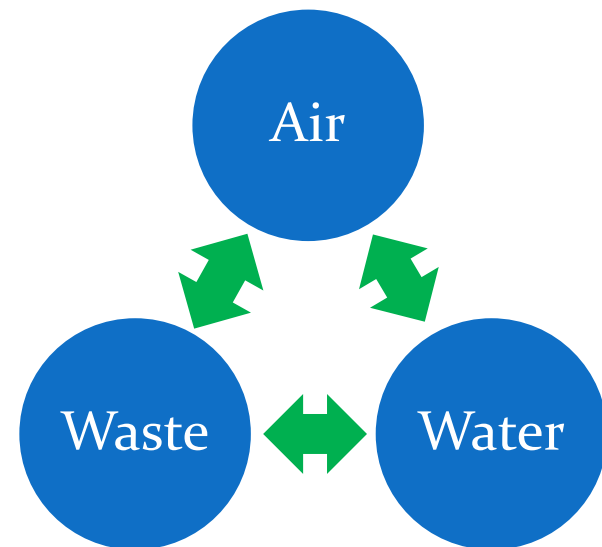
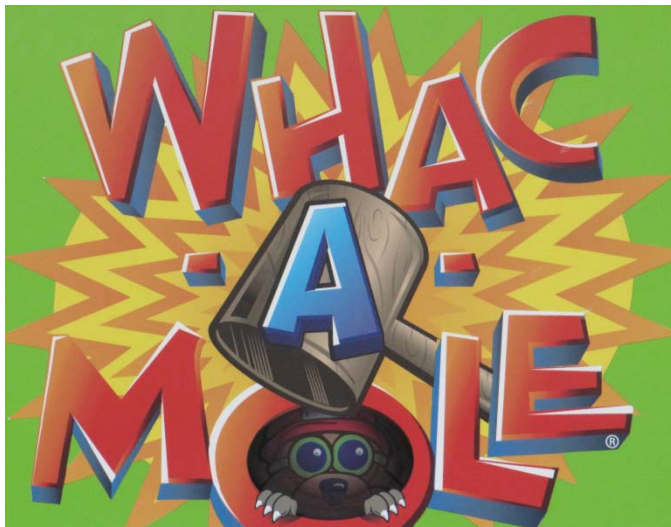
Waste – Months

- Time for leachate migration



What are the Impacts?

Constituents move from one waste stream to another, at times in a more difficult to treat form



ELG/CCR Questions

- What is your holistic strategy for dealing with air, water and solid waste regulations going forward?
- Are you considering the requirements of the draft ELG and CCR rules when implementing your compliance strategy for MATS and CSAPR? If so in what way?

ELG/CCR Questions

- Do you consider fuel quality (HV, ash, Hg, etc,) when evaluating compliance options with the draft ELG rule?
- What is the impact on your plant's wastewater quality from compliance with the MATS rule?

ELG/CCR Questions

- The draft ELG rule requires plant wastewater flows, such as scrubber blowdown, to be treated separately. How does this factor in on your decisions to select AQC technologies for compliance with MATS and CSAPR?
- Will our industry institute a “No Regrets Policy” on compliance or will we build non-integrated compliance technologies going forward?

ELG/CCR Questions

- Depending on the final language of the CCR rule, it may require closure of existing ash ponds. Does this impact your selection of AQC technologies for compliance with MATS and CSAPR?
- What is the greatest challenge for your company when considering compliance with the draft ELG and CCR rules?

ELG/CCR Questions

- Would your decision to install technology for Hg and acid gas control for MATS compliance been different if the requirements of the draft ELG and CCR rules been known earlier? If so, in what way?
- Would your decision to install technology for NO_x and SO₂ control for CSAPR compliance been different if the requirements of the draft ELG and CCR rules been known earlier? If so, in what way?

ELG/CCR Questions

- Does the selection of a lime based sorbent or a sodium based sorbent impact the cost for compliance with the draft ELG and CCR rules? If so, in what way?
- What advice would you give to other utilities as they develop their strategy for compliance with the draft ELG and CCR rules as it pertains to air pollution controls?