Oxidation Catalysts and Wet FGD Capture of Mercury

Gary Blythe URS Corporation



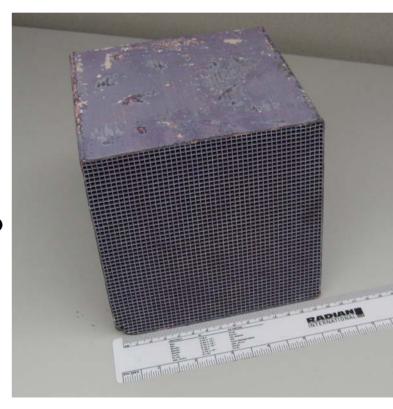
Low-temperature Oxidation Catalysts

- Market Niche:
 - Western coal/lignite
 - Plants with HESP or CS-ESP and WFGD
 - Existing sales of high-value fly ash
 - Commitment to environmental stewardship
- Performance/Cost Trade-offs:
 - Catalyst volume/pitch/velocity
 - » Installed cost
 - » Hg oxidation percentage
 - » Pressure drop
 - » Fly ash buildup



Oxidation Catalysts – Cost/Performance Issues

- Increasing cost of gold
- Ability to use lower cost active ingredients
 - Different substrates
 - Pd at lower loadings
 - Carbon-based monoliths
- Most cost effective regeneration schemes?
- Ultimate catalyst life?





FGD Capture of Mercury

 R&D funded by NETL, EPRI, private sector has greatly advanced the state of the art

Much more remains to be learned before

problem is solved

 Analogy to FGD performance/reliability optimization in the 1980s

> - \$millions in private sector R&D



