

EPA Report on Progress to Address Recommendations of the Advanced Coal Technology Work Group

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ACT Work Group: Background

- CAAAC recommended formation (9/2006)
- Charge: Discuss and identify the potential barriers and opportunities to create incentives under the CAA for ACTs, including technology to capture and store CO₂
- Work Group: appropriate/useful to also examine opportunities outside the CAA

ACT Work Group: Background

- Work Group agreed that the development of a set of recommendations and complimentary actions to be undertaken by different stakeholders will provide greatest potential to accelerate the use of ACTs
- Final report presented to CAAAC in January 2008 (www.epa.gov/air/caaac)
- Request by CAAAC for EPA update

The ACT Work Group Final Report

- 13 recommendations
- Recommendations are complimentary and focus on three areas: (1) actions to encourage ACTS; (2) CCS; and (3) energy efficiency at existing coal-fired power plants
- Directed to EPA and other stakeholders to accelerate use of ACTs

Outreach Efforts for the Final Recommendations

- **Presentations on Final Report by Work Group members and EPA**
 - Tennessee Air Pollution Control Board
 - National Association of Regulatory Utility Commissions
 - National Association of Clean Air Agencies
 - Seventh Annual Carbon Capture & Sequestration Conference
 - Center for Clean Air Policy
 - Senior EPA management
 - Use by Work Group members within their organizations
- **Feedback from Work Group Members**

Overview: 13 Final Recommendations

Encourage ACTs

- Early Deployment Fund
- Incentives
- State Actions
- National Policies
- Technology Advancing Agreements
- Clean Air Act Authorities

Efficiency at Existing Coal Plants

- Encourage Efficiency Improvements; Evaluate Air Quality Implications

CCS

- Well Classification for CO2 in UIC Program
- Education/Outreach
- CO2 Accounting Protocol
- Training
- CO2 Specifications
- Pipeline Study

Encourage ACTs (1)

- **Early Deployment Fund (directed to Congress)**
 - Bill to create carbon capture and storage technology fund
 - Current efforts underway
- **Incentives Toolkit (directed to governmental entities)**
 - EPA exploring approaches under the Clean Air Act through ANPR on GHG
- **State Actions (directed to States)**
 - NARUC dialogue re: actions PUCs can undertake (e.g., approve costs in IRP)

Encourage ACTs (2)

- **National policies (general statement of WG support)**
 - No specific action for EPA
 - EPA providing analytical support on legislative proposals
- **Technology advancing agreements (directed to stakeholders)**
 - Commitment by EPA to work with stakeholders interested in TAAs
 - Potential path forward to address grid lock
 - Communication of commitment to interested stakeholders

Encourage ACTs (3)

- **EPA should take advantage of existing opportunities under the CAA to promote ACTS**
 - GHG Advanced Notice of Proposed Rulemaking (ANPR)
 - ANPR – late Spring 2008
 - Seek comment on approaches and issues associated with use of CAA to address GHG

Improving the Efficiency of Existing Coal Plants

- **EPA should conduct study to evaluate impact of EE improvements on air quality**
 - EPA is considering study
- **EPA should take advantage of opportunities to encourage EE**
 - EPA to seek hypothetical examples of EE projects to determine implications under revised NSR regulations
 - EPA examining other regulatory opportunities to encourage EE

Carbon Capture and Sequestration (1)

- **Directs EPA to designate a new well classification under the Underground Injection Control Program and close coordination between OAR and OW**
 - EPA to propose UIC rule for geologic sequestration
 - Publish Summer 2008
 - Notice of Data Availability (as appropriate) -2009
 - Final Rule expected late 2010/ early 2011

CCS Coordination Within EPA (2)

- OAR and OW working closely to establish a regulatory framework for CCS
 - Co-chair EPA geologic sequestration workgroup established in 2004
 - Jointly issued Experimental Well Guidance 2007
 - Partner on research and risk assessment, technical and regulatory analysis, outreach and communications

Carbon Capture and Sequestration (3)

- **EPA should develop, in consultation with other agencies, a public outreach effort to explain CCS**
 - Current Outreach Efforts
 - UIC proposal
 - 2 public stakeholder meetings
 - Consultation with organizations representing state/local and tribal governments, utilities, and environmental NGOs
 - www.epa.gov/safewater/uic/wells_sequestration.html#regdevelopment
 - EPA Analyses of Legislative Proposals
 - Role CCS could play in reducing CO₂ emissions
 - www.epa.gov/climatechange/economics/economicanalyses.html#s2191
 - EPA Climate Change Website - Geologic Sequestration Page
 - www.epa.gov/climatechange/emissions/co2_geosequest.html

Carbon Capture and Sequestration (4)

- **Directs EPA to work with other agencies to sponsor education and training programs for officials involved with CCS, as soon as practicable**
 - EPA is working closely with DOE/NETL Sequestration Program
 - OW and OAR educating EPA Regional staff and State regulators
 - Providing EPA presentations and managing working groups
 - Sponsoring/hosting technical workshops and conferences
 - More formal education and training programs to be considered as new regulations are finalized

Carbon Capture and Sequestration (5)

- **EPA should develop an accounting protocol to quantify the CO₂ emissions from CCS, don't recreate the wheel**
 - EPA has a long history developing measurement and reporting protocols
 - EPA assisted in development of the 2006 IPCC Inventory Guidelines and is evaluating how to report CCS in the US Greenhouse Gas Inventory
 - www.epa.gov/climatechange/emissions/co2_gs_inventory.html
 - EPA is considering sectors and activities that would be included in the GHG Mandatory Reporting Rule
 - Proposed rule - September 2008
 - Final rule – June 2009

Carbon Capture and Sequestration (6)

- **ASTM (or similar body) should establish CO2 specifications**
 - Coordination and outreach to INGAA and other affected stakeholders
- **DOT should immediately conduct a study examining CO2 pipeline infrastructure issues**
 - Coordination and outreach with DOT, INGAA and other entities

Questions or Comments?

- For additional information:
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