



GOVERNMENT & INDUSTRY PIPELINE RESEARCH & DEVELOPMENT FORUM

ENVIRONMENTAL RISK
ASSESSMENT & IMPACT
MARCH 22-24, 2005

ENVIRONMENTAL STAKEHOLDER NEEDS

- ✦ Identifying research and development needs (R & D)
- ✦ Making informed decisions based on technically sound R & D efforts
- ✦ Develop strategies in support of managing the outcome of R & D efforts
- ✦ Effectively communicating the results of R & D efforts to stakeholders
- ✦ Identify funding in support of R& D programs

CHALLENGES TO STAKEHOLDERS

- ✦ Increasing pressures to reduce air emissions
- ✦ Increased awareness regarding non-traditional air emissions sources (e.g. Greenhouse gasses)
- ✦ Increasing public awareness regarding pipeline operations and maintenance
- ✦ Increased complexity of managing environmental matters
- ✦ Federal vs. State/local requirements

SPECIFIC ENVIRONMENTAL CHALLENGES (AIR)

Air Quality

✦ Emissions

- ✦ Maximum Achievable Control Technology (MACT)/ New Source Performance Standards (NSPS)
- ✦ New Source Review (NSR)
- ✦ NO_x Control

✦ Clean Air Act Reauthorization

✦ Title V Improvements

SPECIFIC ENVIRONMENTAL CHALLENGES (AIR)

- ✱ New Source Review - Existing sources may be subject to permitting, monitoring and the possible addition of controls
- ✱ Maximum Achievable Control Technology (MACT) - Potential addition of emissions control technologies and monitoring on new and existing equipment (Boilers, Heaters, Dehydration, IC Engines)
- ✱ New Source Performance Standard - New and existing sources may require the addition of emissions controls (Turbines, Dehydration, IC Engines)

SPECIFIC ENVIRONMENTAL CHALLENGES (AIR)

- ★ NOX Control – Implementation of emission control strategies in SIP Call States, 8 hour ozone standard areas and Non-Attainment Areas
- ★ Greenhouse Gas Emissions (Methane/CO₂)
- ★ Gas Quality and Interchangeability

SPECIFIC ENVIRONMENTAL CHALLENGES (Non-Air)

- ✦ Timely permitting for construction projects as a result of the Pipeline Integrity rule
- ✦ Biological windows in regards to pipeline maintenance and repair
- ✦ Landowner notifications
- ✦ Generation of RCRA regulated materials at remote locations
- ✦ Conservation easements
- ✦ Habitat fragmentation

POTENTIAL R & D NEEDS

- ✱ Combustion research (IC engines, turbines)
- ✱ Parametric monitoring for the purpose of predicting emissions
- ✱ Air emission control device evaluations
- ✱ Stack testing methods

CONCLUSION

- ✦ Significant rule making is anticipated in '05 and '06 regarding air emission matters
- ✦ Construction related permitting will increase as Pipeline Integrity Programs are implemented
- ✦ R & D funding mechanisms have changed significantly and alternant methods of funding need to be identified.