Development Strategies for the Utilization of Indiana's Coal Settling Ponds

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Indiana LPG #2106
Initial Request for Proposal from the Indiana CCTR:

- “Scoping Study- Reclaiming Coal Fines from the Settling Ponds of Indiana”
- Essence of RFP: tell us
  - how much exist?
  - how might it be recovered?
  - how might it be utilized?
  - what are expected costs/benefits?
How much recoverable coal exist?

- How many abandoned sites are there in Indiana?
- How many tons of material are present?
- How can the material be graded by size?
- How might the material be graded by quality?
How might coal fines be recovered?

**Removal methods:**
- Dig and haul technologies
- Dredging or pumping

**Preparation Methods:**
- Dry screening / air screening
- Jig washing / spirals
- Heavy media technologies
- Filter press applications
How might recovered fines be utilized?

- Conventional technologies (existing markets and subject to existing pricing on a delivered $/Mbtu basis.)
- New technologies (potential new markets that could justify above current market pricing.)
Expected Costs/Benefits

- “Costs” here defined as more than mining / preparation costs.
- Costs include potential environmental consequences of action/inaction
- Benefits include “social value” attained by removal of environmental risks inherent in inaction.
Initial Respondents to CCTR RFP

- Coal Section of the Indiana Geological Survey
- Purdue Water Institute (Purdue University Calumet)
- R.E. Mourdock & Associates, LLC
“Revised” Proposal Team

- Contract signator is R.E. Mourdock & Associates (REMA)
- Subcontractors:
  - Coal Section of the IGS
  - Purdue Water Institute PUC
  - Hull & Associates, Inc.
  - C. B. Lee
  - James R. Holden, Esq.
Proposed Deliverables

- Regulatory Strategy narrative to allow development and resolve problematic permitting issues (REMA, HAI)
- Incentive program outline (REMA, PWI)
- Determination of “Social Costs/Benefits” (PWI, REMA)
Proposed Deliverables (con’t)

- Ownership and Liability Issues Impact on settling pond development (REMA, J RH)
- Balancing the environmental issues (to disturb or not disturb?) (PWI, HAI, REMA)
- Watershed issues as “drivers” to enhance the process (REMA, HAI, PWI)
Proposed Deliverables (con’t)

- Quantity / quality of expected recoverable material (IGS)
- Coal slurry beneficiation methods (PWI, IGS, Lee)
- Expected market demand factors for existing and potential new markets (IGS, PWI, Lee)
Proposed Deliverables (con’t)

- Parameters to determine sites most likely to be developed (IGS)
- Recovery techniques (REMA, Lee, IGS)
- Future potential funding sources (REMA, IGS, PWI)
- Compendium / bibliography of Midwestern research on settling pond recovery issues (HAI, PWI)
Summary

- Millions of tons of coal waste offer the potential for low cost recovery of BTU if utilization can occur.
- Known hurdles exist hindering development including regulatory, permitting and ownership issues.
Summary

- Determining the volume of material available and the inherent environmental risk will (or will not) be substantial “drivers” in establishing whether or not regulatory changes can be implemented.
“so,... in closing...”

R. E. Mourdock & Associates looks forward to working with the assembled team and the CCTR to find the answers and develop the strategies Indiana needs to be at the cutting edge of settling pond recovery methods....