

7.7 Coal Cleaning Assessment

Objective: To assess the use of coal cleaning for complying with SO₂ emission regulations.

Approach: Engineering and economic studies will be made to assess state-of-the-art and advanced coal cleaning techniques. Tests will be conducted to evaluate the ability of the Homer City Coal Cleaning plant to desulfurize coal for compliance with state and federal SO₂ emission regulations. Supporting studies at Homer City will be used to develop methods for predicting the in-situ physical desulfurization potential (washability) of coal seams. Coal washability and plant performance data will be used to develop improved predictive models needed for use of coal cleaning as an SO₂ emission control method. An economic computer model capable of comparing the costs of physical coal cleaning and lime/limestone FGD, with FGD alone, will be developed.

Rationale: It is not currently possible to predict the manner in which coal washability varies within a coal seam. Also, the costs and effectiveness of state-of-the-art and advanced coal cleaning processes in desulfurizing coal of changing properties is unknown. Studies of operating plants and new processes are needed to develop models for use in the design and operation of coal cleaning systems for the production of compliance fuels.

Resources (\$1000):

FY81	FY82	FY83
200	0	0

Milestones:

- ° Complete interim report on Homer City Coal Cleaning Plant Test and Evaluation Program; 4/82
- ° Complete report on Advanced Energy Dynamics electrostatic coal cleaning process; 6/82
- ° Publish Phase I report on geological phenomena which control coal ash and sulfur variability in the Homer City Reserves; 7/82