

**ANNUAL PROJECT REPORT
AS OF DECEMBER 1996**

1. PROJECT SPONSOR:

Ohio Power Company
301 Cleveland Ave.
POB 24400
Canton, OH 44701

2. PROJECT MANAGER:

Mr. Lawrence Hoover
Vice President

TELEPHONE: (216)456-8173

3. OCDO GRANT NO#: D-86-61(B)

4. PROJECT UPDATE

5. PROJECT TITLE: Ohio Advanced Coal Cleaning Test Facility

6. PROJECT TERM: FROM: 12-1-90 TO: 12-31-2002

7. PROJECT

NAME

COST-SHARE

CO-SPONSORS:

OCDO
Ohio Power Company

\$7,190,000
\$4,028,044*

TOTAL PROJECT COST:

\$11,218,044

*Does not include in-kind cost for lab work, coal handling, refuse disposal, electric power, etc., that totals to be estimated \$208,500.00.

I. ABSTRACT

8. OBJECTIVES:

The primary objective of the project was to demonstrate the ability of an advanced preparation facility to remove ash and sulfur from Ohio coals to a greater extent than is possible with conventional coal preparation plants. Three coals (Meigs Creek, Pittsburgh No. 8, and Middle Kittanning) were tested and documentation prepared describing the test results and benefits achieved with the advanced process. Test work on all three coals were identical. All three coals were obtained from producing mines in the State of Ohio and all have operating preparation plants. A representative sample of the operating preparation plant's feed, clean coal and refuse were obtained. These three samples were subjected to analytical tests so that the performance of the existing commercial preparation plants could be determined and then compared to the performance of the advanced plant.

9. WORK DONE AND CONCLUSIONS:

The following results were obtained

Meigs Creek

				<u>Comparison</u>	
	Commercial Plant	Advanced Plant 1	Advanced Plant 2	Plant 1	Plant 2
SO ₂ Reduction	16.2%	36.8%	30.2%	+127%	+86%
Sulfur Rejection	18.9%	49.5%	37.7%	+161%	+99%
Btu Recovery	96.8%	80.0%	89.3%	-17%	-7.7%

Middle Kittanning

				<u>Comparison</u>	
	Commercial Plant	Advanced Plant 1	Advanced Plant 2	Plant 1	Plant 2
SO ₂ Reduction	31.5%	45.6%	29.4%	+45%	-7%
Sulfur Rejection	38.9%	56.8%	37.3%	+46%	-4%
Btu Recovery	89.2%	79.4%	88.8%	-11%	-0.3%

Pittsburgh No. 8

				<u>Comparison</u>	
	Commercial Plant	Advanced Plant 1	Advanced Plant 2	Plant 1	Plant 2
SO ₂ Reduction	31.7%	52.3%	43.9%	+65%	+38%
Sulfur Rejection	42.2%	60.0%	47.8%	+42%	+13.3%
Btu Recovery	84.6%	84.0%	93.2%	-0.7%	+8.6%

Meigs Creek, Middle Kittanning and Pittsburgh No. 8 seam reports were issued to the Ohio Coal Development Office. The final report was issued to the Ohio Coal Development Office.

10. PLANS FOR COMING YEAR:

Continue to market the facility to private industry for testing of equipment, assist in Ohio Coal Development Office projects as required, and any other projects requiring physical preparation of material.

II. HIGHLIGHTS/ACCOMPLISHMENTS

11. The project has been completed and all documentation accepted by the Ohio Coal Development Office. The Department of Energy equipment is stored on site and can be utilized if required for any future testing.

III. ARTICLES/PRESENTATIONS

12. The research facility was again featured at ICF Kaiser' booth at the "Coal Preparation Conference" in Lexington, KY.