

**ANNUAL PROJECT REPORT
AS OF DECEMBER 1990**

1. PROJECT SPONSOR:

Ohio University
Dept. Of Chemical Engineering
183 Stocker Center
Athens, OH 45701-2979

2. PROJECT MANAGER:

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Engineering

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3. OCDO GRANT NO#: CDO/R-88-2/C

4. PROJECT: Final Report

5. PROJECT TITLE: Goal-Directed, Four University Research Consortium: Increased Efficiency of Post-Combustion High-Sulfur Coal Flue Gas Sorbent Injection and Spray Drying Processes - Planning Phase

6. PROJECT TERM: FROM October 15, 1988 **TO** June 30, 1990

| 7. PROJECT | <u>NAME</u> | <u>COST-SHARE</u> |
|----------------------------|-----------------------|--------------------------|
| CO-SPONSORS: | OCDO | \$156,975 |
| | Ohio University | -0- |
| | Case Western Reserve | -0- |
| | U. of Cincinnati | -0- |
| | Ohio State University | -0- |
| TOTAL PROJECT COST: | | \$156,975 |

I. ABSTRACT

8. OBJECTIVES

The Ohio Coal Research Consortium, a university research consortium consisting of Ohio University, Case Western Reserve University, University of Cincinnati, and the Ohio State University, has been formed for the purpose of conducting a multi-year fundamental research program focused on increasing the efficiency of post-combustion high-sulfur coal flue gas sorbent injection and spray drying processes.

The primary objectives of the planning phase of the consortium program include: (1) the formal initiation of the consortium, (2) the evaluation of the current state of knowledge and research on dry calcium-based sorption methods and processes, (3) the identification of the most critical research needs and the most promising research opportunities, (4) the definition of technical and research goals, (5) the formulation of a long-term and detailed first-year research plan, (6) the development

of a management plan, and (7) the implementation of the research phase of the consortium.

9. WORK DONE AND CONCLUSIONS:

The consortium planning phase ended June 1990 with the issuance of the reports listed below.

- (1) FLUE GAS DESULFURIZATION FOR ACID RAIN CONTROL - Site Visits and Interviews: Research Needs and Opportunities Identified in Dry, Calcium-Based Sorbents and Processes.
- (2) FLUE GAS DESULFURIZATION FOR ACID RAIN CONTROL - A Critical Literature Review for Dry, Calcium-Based Sorbents and Processes.
- (3) FLUE GAS DESULFURIZATION FOR ACID RAIN CONTROL - Research Consortium Program Goal and Technical Goals and Objectives.

Implementation of the formal research phase of the consortium commenced June 1, 1990. Eleven integrated research projects were selected for first year implementation. The first year consortium budget has been set at \$1,044,174 with OCDO supplying 78.7% of the funding with the remainder being made up as matching by the consortium members.

10. PLANS FOR COMING YEAR:

The Ohio Coal Research Consortium planning phase has been completed.

II. HIGHLIGHTS/ACCOMPLISHMENTS

11. Implementation of the formal research phase of the Ohio Coal Research Consortium commenced June 1, 1990. Eleven integrated research projects were selected for first year implementation. The first year consortium budget has been set at \$1,044,174 with OCDO supplying 78.7% of the funding with the remainder being made up as matching by the consortium members.

III. ARTICLES/PRESENTATIONS

12. None to report.