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LIQUID PHASE METHANOL LAPORTE PROCESS DEVELOPMENT UNIT:  
MODIFICATION, OPERATION, AND SUPPORT STUDIES

Quarterly Technical Progress Report No. 16

For The Period 1 April - 30 June 1991

DOE/PC/90005--T55

DE92 008700

Contractor

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and

Subcontractor to Air Products

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6 August 1991

Prepared for the United States Department of Energy  
Under Contract No. DE-AC22-87PC90005  
Contract Period 9 April 1987 - 31 October 1991

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CONTRACT OBJECTIVES:

The objectives of this program are to implement and test the process improvements identified through the engineering studies of the current program (Contract DE-AC22-85PC80007), to demonstrate the capability of long-term catalyst activity maintenance, and to perform process and design engineering work that can be applied to a scaled-up Liquid Phase Methanol (LPMEOH) facility. An optional series of Process Development Unit (PDU) runs is offered to extend the testing of the process improvements. A parallel research program will be performed to enhance the LPMEOH technical data base to improve the likelihood of commercialization of the LPMEOH process.

QUARTERLY SUMMARY:

- All topical reports describing LaPorte PDU operations have now been submitted to DOE for comment.
- All topical reports describing the R&D program have now been submitted to the DOE for comment. A draft memo for Task 3.3, Slurry Storage and Improved In-situ Catalyst Activation, was completed and issued to DOE for comment.
- A detailed report of the engineering design work done from October 1989 to November 1990, and the Final Project Report are the only outstanding deliverables under the contract.

FUTURE PLANS:

- Complete reporting requirements, including Final Report.

RESULTS AND DISCUSSION:

Tasks 1 through 4 are complete.

Task 5 - Air Products Management Activities

- Are essentially complete.
- See Summary for details.

OPEN ITEMS

None

ATTACHMENTS

The Milestone Schedule Status Report and Milestone Log for the period 1 April - 30 June 1991 are submitted herewith.

## MILESTONE LOG

Report Date: 6 August 1991

Contract No. DE-AC22-87PC90005

<u>Ident. No.</u>	<u>Description</u>	<u>Planned Completion Date</u>	<u>Actual Completion Date</u>	<u>Comments</u>
1.1	LaPorte PDU Engineering	30 Nov 90	30 Nov 90	Report Needed*
1.2	LaPorte PDU Modification	3 Jun 88	15 Jun 88	Work Completed
2.1	LaPorte PDU Shakedown	15 Aug 88	13 Jul 88	Work Completed
2.2/2.3	LaPorte PDU Operations	3 Mar 89	28 Jul 88 1 Sept 88 9 Jan 89 28 Feb 89 31 Mar 89	Run E-5 Completed Run E-6 Completed Run E-7 Completed Run E-8 Completed * Run E-9 Completed *
2.4	LaPorte PDU Deactivation & Disposal	31 Mar 91		
3.1	Alternate Liquid Media Studies	18 Mar 88	25 Mar 88	Work Completed
3.2	Effects of CO <sub>2</sub> in CO-Rich Syngas	30 Sept 88	30 Sept 88	Work Completed
3.3	In-Situ Reduction, Simplification, Optimization & Slurry Storage	2 Oct 87 28 Oct 88 1 Mar 89	15 Mar 89	Report Needed *
3.4	Catalyst Poisons Studies	16 Sept 88	19 Aug 88	Work Completed
3.5	Fundamental Modeling	30 Apr 90	30 Apr 90	Work Completed *
3.6	Testing Alternate Comm'l. Catalyst	15 Jan 88	29 Jan 88	Work Completed *

END

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