WV-0204#63 6/27/86

SPECIALTY CHEMICALS DIVISION

SISTERSVILLE PLANT ENGINEERING

JRD -
fyi
As we discussed this morning

June 25, 1986

PLAINTIFF'S EXHIBIT
UC-2108

TO: J. F. Dodd (2)
W. V. Summers
G. W. Wulfert

CC: W. D. Bradbury, Jr.
R. P. Leichliter
W. C. Nycz

SUBJECT: Sistersville Plant Insulation Upgrade

Attached is the Draft Outline of Project for the subject project for your review and comments.

Highlights are:

- Project Cost $1,500,000 Capital, $600,000 Expense over next three years.
- Advance funding is not available, so expenditure in 1986 is estimated at $150,000.
- Estimate is based on detailed takeoff of Maintenance Department survey.
- Maintenance to supervise field construction.
- Project will meet all OSHA and EPA Standards.

Please return comments to me, or I will schedule a meeting if there are significant comments to resolve.

L. G. Moody

LGM/kcs
0723k

UCC 006447

SISTERSVILLE PLANT ENGINEERING
SPECIALTY CHEMICALS DIVISION

OUTLINE OF PROJECT

SISTERSVILLE PLANT

INSULATION UPGRADE

SISTERSVILLE, WV

DRAFT

JUNE 23, 1986

UCC 006448

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OUTLINE OF PROJECT

SISTERSVILLE PLANT
INSULATION UPGRADE

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I. INTRODUCTION

Much of the insulation in the Sistersville Plant is asbestos and is in poor condition. The exposed asbestos presents a safety and health hazard associated with airborne particulate asbestos.

II. SUMMARY

The asbestos insulation throughout the Sistersville Plant must be upgraded to comply with the Occupational Safety and Health Administration (OSHA) standards. The plan is to remove asbestos from idle equipment, replace asbestos insulation, where necessary, with an approved type, and cover asbestos insulation with an approved covering. This cost of the proposed project is:

Capital (± 15%)	$1,500,000
Non Capital	600,000

The justification of this project is Occupational Health. The present OSHA Asbestos Standard, 1910.1001, specified two fibers/cc as the maximum allowable exposure over an eight-hour period. The figure refers to fibers greater than five micrometers in length and would amount to about 16 million fibers in that time period. Because there is no evidence in occupational studies to show that there is threshold level below which there are no adverse effects, OSHA is pressing for a lowering of the level to 0.2 fibers/cc.

III. SPONSOR'S OBJECTIVE

The basic objective of this project is to upgrade the asbestos insulation throughout the Sistersville Plant to comply with OSHA Standards.

Completion

This Insulation Upgrade Project to be complete by June 1989.

Project is high priority and must be executed on a continuous basis over the three-year period with only curtailment during the bitter cold winter months.

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Safety/Health

All Division Safety/Health Guidelines must be followed during asbestos removal, repair, land covering.

Government Regulations

Plant will be in compliance with all applicable OSHA and U.S. Environmental Protection Agency (EPA) Regulations at project completion.

IV. FACILITIES

This project will replace asbestos insulation and jacketing in many areas of the Plant in accordance with the following area priority list:

1. Intermediates Area
2. Environmental Protection Area
3. Small Scale Production Area
4. Polymers II
5. Silanes Reactor Tower
6. Polymers I
7. Miscellaneous areas; including Maintenance, Laboratory, Warehouse, etc.
8. Energy Systems area

This project will provide total replacement of an estimated 50 per cent of the asbestos insulation currently installed in the Sistersville Plant. The remaining asbestos insulation will be addressed by another project of approximately the same cost as this one, to be executed in 1989, 1990, and 1991.

In the execution of this project non-asbestos type insulation will also be repaired or replaced to provide for an economical and complete project. Non-asbestos insulation work will consititute 15 per cent, or less, of the total project cost.

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V. ENVIRONMENTAL PROTECTION/OCCUPATIONAL HEALTH AND SAFETY CONSIDERATIONS

This project will correct an Occupational Health concern by replacing or sealing exposed asbestos insulation throughout the Plant. When the insulation is being replaced or removed, Safety and Health Guidelines will be followed which includes: installing rope barricades and clearing the area of plant personnel, posting of warning signs, proper bagging and disposal of insulation, and monitoring of surrounding work areas. In addition, assuring that contractor personnel adhere to guidelines such as: wet clean-up, wearing of appropriate respirators, wearing and disposal of proper protective clothing, etc.

This project will be in compliance with all applicable OSHA and EPA Regulations. The EPA will be notified that the removal of asbestos insulation could occur at the Sistersville Plant.

VI. SUPPORTING FACILITIES

A. Distribution

The project will have no effect on Distribution facilities.

B. Energy Systems

The project will have no effect on Energy Systems requirements. However, Energy Conservation will be improved with this insulation upgrade.

C. Safety and Environmental Considerations

See Section V above.

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VII. PROJECT PLAN

The project survey, or scope, was prepared by the Maintenance Department over the last year. The priority of work is shown in the Facilities Section on page 3.

Insulation specification consultation will be supplied by Engineering. Field construction will be done by the Plant Maintenance Department, an outside contractor, or the Central Engineering Construction Group, and will be supervised by the Maintenance Department. Project Management, including cost control and reporting, will be provided by Plant Engineering.

The project organization follows:

Steering Committee

Assistant Plant Manager	W. V. Summers
Maintenance Superintendent	G. W. Wulfert
General Project Manager	J. F. Dodd

Project Team

Maintenance Contractor Foreman	J. E. Boley
Maintenance Coordinator/Supervisor	W. C. Nycz
Project Manager	C. A. Eddy

VIII. SCHEDULE

Key dates are:

Outline of Project Approval	July 1986
CBP Approval	September 1986
Mechanical Completion	June 1989

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IX. COST ESTIMATE

A. Summary

	Capital	Removals Expense
• Construction Labor	$1,109,000	$554,000
• Materials	241,000	21,000
• Engineering*	50,000	12,000
• Contingency	100,000	13,000
Total	$1,500.000	$600,000

* Insulation specification consultation, project management and field coordinator of contractor.

B. Basis for Estimate

The estimate for the work is based on a detailed scope provided by an insulation survey of each unit. The total man-hour estimate is 30,000 hours of work.

C. Cash Flow

1986	150,000
1986	500,000
1988	500,000
1989	350,000

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