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MAINTENANCE DEPT.

SPECIALTY CHEMICALS DIVISION

SOUTH CHARLESTON PLANT ENGINEERING

November 7, 1986

PLAINTIFF'S EXHIBIT

UC-2149

TO: D. A. Gosselin
R. G. Link
S. Rossi
M. J. Shoger
E. D. Southard
J. L. Worstell

CC: W. D. Bradbury
[redacted]

SUBJECT: South Charleston Plant
Insulation Upgrade Outline of Project

Gentlemen:

The Insulation Upgrade Outline of Project (O/P) is attached for your review. This plantwide Insulation Asbestos Upgrade Project is a high-priority Safety/Health Program. The total cost is $3.3MM Capital and $1.4MM 838 Expense. Please note that the required Health, Safety, and Environmental review by the Engineering, Manufacturing, and Technology Services Department has been completed and is incorporated into the O/P.

Please return any comments directly to me by November 13. The finalized O/P will then be transmitted by the Director of Engineering to the functional Vice-Presidents for approval.

Please call if you have any questions.

Joseph F. Dodd

JFD/wdm
Ext. 3469
Attachment
2301G

UCC 006704

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SOUTH CHARLESTON PLANT ENGINEERING
SPECIALTY CHEMICALS DIVISION

OUTLINE OF PROJECT

SOUTH CHARLESTON PLANT

INSULATION UPGRADE

SOUTH CHARLESTON, WV

November 7, 1986

UCC 006705

OUTLINE OF PROJECT

SOUTH CHARLESTON PLANT

INSULATION UPGRADE

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- o Health, Safety, and Environmental Review by Engineering, Manufacturing, and Technology Services Department
- o Division/Profit Center Cost Allocations Summary

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I. INTRODUCTION

Much of the insulation in the South Charleston Plant is asbestos and is in poor condition. Exposed asbestos presents a safety and health hazard associated with airborne particulate asbestos.

II. SUMMARY

The asbestos insulation throughout the South Charleston must be upgraded to comply with the Occupational Safety and Health Administration (OSHA) standards. The project is estimated to cost $4.7MM over a three-year period: $3.3MM capital and $1.4MM removals 838 expense. The plan is to remove asbestos from idle equipment, replace damaged insulation with an approved type, and seal all remaining asbestos insulation.

This project will be implemented over a three-year period with completion in 1989.

The justification of this project is Occupational Health. The present OSHA Asbestos Standard, 1910.1001, now specifies 0.2 fibers/cc as the maximum allowable exposure over an eight-hour period. The figure refers to fibers greater than five micrometers in length.

III. SPONSOR'S OBJECTIVE

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

Completion

All insulation upgrade to be complete by December 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.

Safety/Health

All Division Safety/Health Guidelines must be following during asbestos removal/disposal, repair, and covering.

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Government Regulations

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

IV. FACILITIES

The asbestos insulation upgrade encompasses the following units and the work schedule on a priority basis follows:

Phase 1

No. 2 Steam Plant
Portion Water Treating Unit

Phase 2 (Manufacturing Units)

Chemical Mixing	Polyols
Upper Island	Specialty Catalyst
Mainland	Specialty Chemicals
PVA Resins	Middle Island
Solvent Vinyls	Oxide Adducts

Phase 3

Complete Water Treating Unit
Utility Distribution
Distribution
Bulk Terminal
Maintenance

Some of the work has already been authorized for removing asbestos insulation from idle equipment and lines; the work is not part of this major capital project. These projects are listed below:

Project	Approval	Cost	Status
No. 2 Powerhouse	10/85	$111,000	Complete
Solvent Vinyl Resins	1/86	17,000	Complete
Specialty Chemicals Division Units	1/86	182,000	On-going
Upper Island Chemical Complex	--	26,000	WOR To Dan 10/9/86
Oxide Adducts	--	100,000	WOR to Dan by 11/13/86
	Total	$436,000	

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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 South Charleston Plant.

The required Health, Safety, and Environmental review of the project was completed on October 30, 1986, by the Engineering, Manufacturing, and Technology Services Department; the project is endorsed contingent upon the following:

1. Maintenance Procedure XVIII Provisions for Asbestos Material Removal and Disposal Safety will be revised to be in compliance with the latest OSHA Standard 29 CFR 1910.1001.

2. Procedure XVIII will be revised in accordance with the environmental concerns listed in the review.

A copy of the complete review is attached in the Appendix section.

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 by an outside contractor or the Central Engineering Construction Group, 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	S. Rossi
Maintenance Superintendent	J. R. Dement
General Project Manager	J. F. Dodd
Project Team	
Maintenance Coordinator/Supervisor	L. B. Hewitt
Project Manager	J. R. Maier

VIII. SCHEDULE

Key dates are:	
Outline of Project Approval	December 1986
CBP Approval	February 1987
Mechanical Completion	December 1989

IX. COST ESTIMATE

A. Summary

	Capital	838 Expense
o Labor	$1,950,000	$1,140,000
o Materials	860,000	50,000
o Engineering/Maintenance*	160,000	70,000
o Contingency	330,000	140,000
Total	$3,300,000	$1,400,000

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

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B. Basis for Estimate

The estimate for the Phase I work is based on a detailed scope and budget pricing obtained from a local insulation contractor. The remaining work is based on an insulation survey of each operating unit and estimating the associated man-hours and materials required. The total man-hour estimate is 101,000 hours of work.

C. Cash Flow

	Capital	838 Expense
1987	$1,100,000	$ 466,000
1988	1,100,000	466,000
1989	1,100,000	468,000
Total	$3,300,000	$1,400,000

X. COST ALLOCATIONS TO DIVISIONS

The project costs are allocated to tenant divisions based on the 1987 plant period cost allocations furnished by the Plant Controller. For example, costs for insulation work on steam lines in the Energy Systems area would be allocated plantwide to those profit centers on a steam usage basis. The overall project allocations to divisions follows:

Division	Percent	Costs	
		Capital	Expense
Specialty Chemicals	75.12	$2,479,000	$1,052,000
Solvents & Coatings	21.80	720,000	305,000
Industrial Chemicals	3.08	101,000	43,000
Total	100.00	$3,300,000	$1,400,000

These costs are spread equally over three years (1987, 1988, and 1989). The individual profit center cost breakdown for each division is shown in the Appendix section.

JFD
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XI. APPENDIX

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