

SOUTH CHARLESTON PLANT
ASBESTOS INSULATION UPGRADING PROGRAM

SUMMARY

A program is proposed to upgrade asbestos insulation in the South Charleston Plant to comply with OSHA standards. The program is estimated to cost \$4.2MM over a three year period. The plan is to remove asbestos from idle equipment, replace damaged insulation with an approved type, and seal with metal cover all remaining asbestos insulation. Outside contractors will be required to meet the schedule.

The work will be divided into three (3) phases: No. 2 steam plant, operating units within battery limits, and support facilities.

JUSTIFICATION

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 a threshold level below which there are no adverse effects, OSHA is pressing for a lowering of the level to 0.5 or 0.2 fibers/cc.

Much of the insulation in the Plant is asbestos and is in poor condition. Uncovered, unprotected asbestos insulation in the plant constitutes a threat to employees, and even the community. It represents a pool of fibers which slough off as weather and wind dictate, and enters the air in which our employees work. Although there is a legal exposure limit which our measurements suggest we are complying with, it is believed that any exposure may be harmful in the long run.

PROGRAM DESCRIPTION

Phase 1

Units

No. 2 Steam Plant
Portion Water Treating Unit

Schedule

Complete 1985

Cost

Capital	\$ 900,000
Expense	<u>251,000</u>
Total	\$1,151,000

The attached work order request details this phase of the program.

Phase 2

Units

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

Schedule

Complete 1986

Cost

\$2,480,000

Phase 3

Units

Complete Water Treating Unit
Utility Distribution
Distribution
Bulk Terminal
Maintenance

Schedule

Complete 1987

Cost

\$540,000

COST ESTIMATE

The Phase 1 estimate is based on a detailed scope and budget pricing obtained from a local insulation contractor. The cost estimates for Phase 2 and 3 are based on an insulation survey of each operating unit and estimating the associated manhours and materials required to do the work.

COST ALLOCATIONS TO TENANTS

The program costs for Phases 1 and 3 are allocated to tenants based on 1985 usages of utilities and services (plant period cost allocations); whereas, the Phase 2 costs within the manufacturing battery limits are funded by the responsible tenant.

Division	M-Dollars				Grand Total
	Phase 1		Phase 2(2)	Phase 3(1)	
	Capital	Expense			
Silicones & Urethane Intermediates	392	110	565	183	1,250
Specialty Chemicals	316	88	1,354	110	1,868
Solvents & Coatings Materials	90	25	293	177	585
Ethylene Oxide/Glycol	77	21	164	62	324
Specialty Polymers & Composites	<u>25</u>	<u>7</u>	<u>104</u>	<u>8</u>	<u>144</u>
Totals	900	251	2,480	540	4,171

- Notes: 1. Funded as Host support project
2. Funded as tenant direct manufacturing projects

May 14, 1985