R 3 (Rev. 1-68)

PLAINTIFF'S EXHIBIT RMC-29

FROM:	Jack B. Barbee - Sherwin
→ TO:	William C. Strain, Jr. - Mgr Plant Services - Central Engineering
COPY:	G. B. Smith
DATE & SUBJECT:	February 19, 1987 — SHERWIN PLANT's ASBESTOS CONTROL/REMOVAL PROGRAM

Pursuant to your memorandum dated December 22, 1986, requesting status of the Sherwin Plant's Asbestos Control/Removal Program, please find enclosed a progress report of the items listed on the asbestos audit in question and a cost estimate to carry out a removal/repair/replacement program for asbestos-containing bulk insulation. Capital funds had been requested in previous years to repair insulation but they were not approved until the 1987 budget, when $500,000 was allocated. The asbestos insulation removal/repair/replacement program could be completed by 1990 if funding could be obtained.

This estimate reflects a cost effective program to repair and encapsulate the damaged/exposed/friable asbestos insulation where deemed appropriate or to remove and replace the insulation where it is beyond repair.

Jack B. Barbee

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Attachments

003908

APPENDIX III

SHERWIN ALUMINA PLANT

STOREROOM ASBESTOS PRODUCTS

PRODUCT	STOREROOM STOCK NOS.*	
Ring gaskets	~~87-23-5899~~	DIS.
	57-06-3196	NC
	57-06-3197	RPL
	57-58-7166	NC
Glass sight gaskets	12-72-5911	NC
	12-72-5925	NC
	~~12-72-5935~~	DIS
Coil belt gasket (4")	16-05-2646	RPL
	16-05-2551	RPL
Rope	16-25-0016	NC
Sheet gasket	88-32-1345	RPL
Gasket	57-06-3224	NC
	~~60-03-1840~~	DIS.
Gasket, cylinder head	87-09-1030	RPL
Gasket, Clark Brothers	87-09-1050	RPL
	87-09-1400	NC
Ca ring gasket	87-13-2672	NC
	87-13-2590	NC
Gasket, water connection	87-13-2841	NC
Gasket, Ingersol Rand	87-13-3255	NC
Gasket, Spacer	87-13-7270	NC
Sheet Gasket	87-86-2148	NC
	87-86-2152	NC
Gasket	87-86-2385	NC
	87-862450	RPL
Gasket, cylinder valve cover	87-13-2837	NC
	87-13-8700	NC
Gasket, gould	87-78-1350	NC
Coil brake lining	78-86-6176	NC
Gasket, DeLaval	87-57-2560	NC
Gasket, ring woven	~~60-04-7350~~	DIS.
	60-xx-0024	BAD NUMBER
Gasket, Flextaulic	16-05-0675	NC
	16-05-0640	NC
	16-05-0625	NC
	16-05-0595	NC
	16-05-7785	NC
	16-05-7810	NC
	16-05-7816	NC
	16-05-7765	NC
	16-05-7766	NC
	16-05-7767	NC
	16-05-7768	NC

APPENDIX III

SHERWIN ALUMINA PLANT

STOREROOM ASBESTOS PRODUCTS

PRODUCT	STOREROOM STOCK NOS.*	
Gasket, Flextaulic	16-05-7769	NC
	16-05-7770	NC
	16-05-7772	NC
	16-05-7782	NC
	16-05-7783	NC
	16-05-7705	NC
Gasket, sheet	16-10-0200	RPL
	16-10-0275	RPL
	16-10-0410	RPL
	~~16-10-0924~~	DIS.
	~~16-10-0865~~	DIS.
	~~16-10-0850~~	DIS.
	~~16-10-0800~~	DIS.
	~~16-10-1000~~	DIS.
	~~16-10-1020~~	DIS.
	~~16-10-1890~~	DIS.
	~~16-10-4330~~	DIS
	~~16-10-1005~~	DIS
	~~16-10-0831~~	DIS
	~~16-10-0794~~	DIS
	~~16-10-0767~~	DIS
	~~16-10-0990~~	DIS
	~~16-10-3020~~	DIS
	~~16-10-5587~~	DIS
	~~16-10-1515~~	DIS
	~~16-10-2630~~	DIS
	~~16-10-2615~~	DIS
	~~16-10-2560~~	DIS
	~~16-10-3675~~	DIS
	~~16-10-7110~~	DIS
	~~16-10-2522~~	DIS
	~~16-10-0080~~	DIS
	~~16-10-2522~~	DIS
	~~16-10-2200~~	DIS
	~~16-10-2515~~	DIS
	~~16-10-2375~~	DIS
	~~16-10-2490~~	DIS
	~~16-10-2435~~	DIS
	~~16-10-2445~~	DIS
	~~16-10-2230~~	DIS
	~~16-10-2325~~	DIS
	~~16-10-3620~~	DIS
	~~16-10-2085~~	DIS
	~~16-10-4140~~	DIS

APPENDIX III

SHERWIN ALUMINA PLANT

STOREROOM ASBESTOS PRODUCTS

PRODUCT	STOREROOM STOCK NOS.*	
Gasket, sheet	~~16-10-2230~~	DIS
	~~16-10-2005~~	DIS
	~~16-10-2087~~	DIS
	~~16-10-0195~~	DIS
	~~16-10-2165~~	DIS
	16-10-0595	RPL
	~~16-10-4150~~	DIS
	~~16-10-4075~~	DIS
	~~16-10-2890~~	DIS
	~~16-10-3975~~	DIS
	~~16-10-2972~~	DIS
	~~16-10-2958~~	DIS
	~~16-10-2962~~	DIS
Woven tape	16-10-4070	RPL
Gasket, Flextaulic	16-05-7720	NC
	16-05-7760	NC
	16-05-7761	NC
	16-05-7762	NC
	16-05-7763	NC
	16-05-7764	NC
	16-05-7551	NC
	16-05-7552	NC
	16-05-7580	NC
	16-05-7592	NC
	16-05-7620	NC
	16-05-7635	NC
	16-05-7645	NC
	16-05-7671	NC
	16-05-7696	NC
	16-05-7520	NC
	16-05-7510	NC
	16-05-7500	NC
	16-05-7460	NC
	16-05-7470	NC
	16-05-7549	NC
	16-05-7835	NC
	16-05-7360	NC
	16-05-7310	NC
	16-05-7370	NC
	16-05-7426	NC
	16-05-7420	NC
	16-05-7400	NC
	16-05-7449	NC
	16-05-7827	NC
	16-05-7820	NC
	~~16-05-7775~~	DIS
	16-05-1345	NC

APPENDIX III

SHERWIN ALUMINA PLANT

STOREROOM ASBESTOS PRODUCTS

PRODUCT	STOREROOM STOCK NOS.*	
Gasket, sheet	~~16-05-2590~~	DIS
	16-05-2940	RPL
	16-05-2695	RPL
	16-05-2250	RPL
	16-05-2810	RPL
	16-05-2830	RPL
	16-05-2890	RPL
	16-05-2895	RPL
	16-05-2930	RPL
	16-05-3850	RPL
	16-05-2947	RPL
	16-05-3660	RPL
	16-05-2950	RPL
	16-05-2105	RPL
	16-05-2040	RPL
	16-05-2050	RPL
	16-05-2015	RPL
	16-05-2000	RPL
	16-05-1900	RPL
	16-05-1812	NC
	16-05-1837	RPL
	16-05-1870	RPL
	16-05-2810	RPL
	16-05-2890	RPL
	16-05-1525	RPL
	16-05-1550	RPL
	16-05-1675	RPL
	16-05-1560	RPL
	16-05-1660	RPL
	16-05-1700	RPL
	16-05-1750	RPL
	16-05-1375	RPL
	16-05-1370	RPL
	~~16-05-1400~~	DIS
	~~16-05-1480~~	DIS
	16-05-1490	RPL
	16-05-1300	RPL
	16-05-1275	RPL
	16-05-1185	RPL
	16-05-1170	RPL
Woven gasket	88-18-3962	PLASTIC
	16-05-3000	RPL
	16-05-3030	NC

APPENDIX III

SHERWIN ALUMINA PLANT

STOREROOM ASBESTOS PRODUCTS

PRODUCT	STOREROOM STOCK NOS.*	
Packing	16-25-0306	RPL
	16-25-3420	RPL
	16-25-2192	RPL
	16-25-5300	RPL
	~~16-25-5175~~	DIS
Chesterton Style 64	RPL	
Hercules Style 159		
Chesterton Style 326	RPL	
Woven gasket	16-25-4780	NC
Gasket, Flextaulic	~~88-32-7220~~	DIS
	88-32-1350	NC
	88-54-1375	NC
	88-54-1377	NC
Metal jacketed asbestos	88-54-1381	NC
Gasket, Tadpole woven asbestos	48-10-1015	NC
Gasket, Flextaulic	48-12-1010	NC
Friction disc	52-63-2675	NC
Gasket, sheet	52-80-1605	NC
Gasket, flat woven asbestos	52-33-7805	NC
Transite cover	52-33-7607	NC
Arc chutes	51-80-4620	NC
	51-80-4660	NC
Base - Allen Bradley	51-03-2000	NC
	51-03-2010	NC

*Note: This list is not all inclusive, but only indicates those items noted in the storeroom to contain asbestos.

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON & ROBERT G. BURTON

DATE 11-7-83

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS	
1S	Storeroom	gasket material for 3920	NO	—
2S	Storeroom	*overhead pipe insul. - ad. shipping/receiving dock	YES	NC
	Storeroom	Comp. sheet gaskets, overhead pipe insul.,	YES	NC
		glass sight gaskets, coil belt gasket, rope,	YES	NC
		brake lining, woven gaskets, asb. tape	YES	NC
3S	Paint Shop Office	ceiling tile	NO	—
4S	Outside Carpenter Shop	Pipe insulation	NO	NC
	Carpenter Shop	Overhead pipe insulation	YES	NC
5S	Machine Shop	Gasket material, white	YES	DIS
	Machine Shop	Overhead pipe insulation	YES	NC
		gaskets, sheet gasket material, 3" tape, blanket	YES	DIS
		(behind cod forge), packing, arc chutes & asb. paper	YES	DIS
	*Adj.to Elec.Shop.	sleeves on steel pipe*insu., small oven in eating area	YES	RMV
		has asb. paper & sheet gasket	YES	RMV
6S	Bulk Storage	Pipe insulation	NO	NC
	Bulk Storage	Pipe insulation, asb. tar paper	YES	RPL
7S	Power House	Insul. 8 & 9 boilers (old)	YES	NC
	Power House Area #8 & 9	boiler insulation & pipe insulation	YES	R
8S	Power House Atmosp. Blowdown Vessel	Vessel insulation	<1%	NC
9S	Power House	Pipe insulation #11 boiler	YES	R
10S	Power House #6 Generator	Bulk insulation	YES	R
11S	# 6 Generator Power House	Outer coating	NO	NC
	Power House Bldg. 111, Generator	Pipe and duct insulation	YES	NC
	Power House Bldg. 111, Generator	Pipe insulation	YES	R
	Power House Bldg. 111, Generator	compressor after cooler air lines - insul. air in the diesel engine - insul.	YES	R

003914

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON & ROBERT G. BURTON

DATE 11-7-83

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS
	Power House Laboratory	oven-asb. door seals, pipe insul. drum & sample storage	YES NC
			YES NC
12S	Power House - #6 Generator #50 Steam Line	Bulk Insulation	YES R
13S	Air Filter - #5	Bulk Insulation	YES R
14S	Generator Closed Heater Area	Bulk Pipe Insulation	YES NC
15S	E. Condensate Tank	Bulk Insulation	NO NC
16S	Storage Tank for Asb.	Bulk insul.	NO NC
17S	3rd Level #850 Steam Line	Pipe insul.	YES NC
18S	#600 Steam Line	Pipe insul.	YES NC
19S	2nd Level Facility 22	Outer paper insul. (pipe)	<1% NC
	Facility 22 (old)	Pipe & bulk insulation	YES NC
	Facility 22 ESP	Intake ductwork insul.	YES NC
	Facility 24	Pipe insulation	YES NC
20S	Facility 22 (old)	Pipe insul. (small)	YES NC
21S	Facility 22 (old)	Fresh air makeup Vessel insulation(2nd floor)	YES NC
22S	Facility 22 (old)	Coating on siding - pan shape - Kiln floor	YES NC
23S	Facility 22 (old)	Vessel insul.-block(see 21s)	YES NC
24S	Facility 22 (old)	Old ESP INSUL. (tar outer) mineral wook behind	NO NC
25S	#3 SOP	Vessel insul. similar to old 24 Facility(see 21S)	YES NC
26S	#1 SOP	Vessel insul - old	YES NC
27S	#32 Area, Starch Storage	Vessel insul. -powder	NO NC
28S	#3 Unit Washer overflow	piping insul.	YES NC
29S	#1-7 flashtub	mineral wool inner insul. material	NO NC
30S	Liquor to #2 heater	valve dock piping insul.	YES NC
		block sheets; paper outer	YES NC

003915

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON
ROBERT G. BURTON

DATE 11-7-84

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS	
31S	#9 horiz. htr.	Bulk Insul.	YES	NC
32S	#9 horizon. hrt.	scrap on floor	YES	RMV
33S	#2 Settler	Bulk Insul.	YES	NC
34S	#2 Washer	Bulk Insul.	YES	NC
35S	#2 Wash Water Tank	Bulk Insul. bottom area	NO	NC
36S	#3 Diluter	Bulk Insul. (new)	YES	NC
37S	#2 Diluter	Bulk Insul. (old)	YES	NC
38S	Lime aging tank	Cement like matl-5yrs.old	NO	NC
39S	#2 Filter feed tank	Bulk Material & cement	YES	NC
40S	Filter wash tank	Bulk Insul.	YES	NC
41S	#1 Clear Filtrate Tank	Bulk Insul.	YES	NC
42S	Kelley Press	Cement Material	NO	NC
43S	filter press Vacuum pot lime	Inner Material	NO	NC
44S	GB Press	Cement & Inner (see 39)	NO	NC
45S	# Vessel - end digestors	Inner Material	NO	NC
46S	#3 ESP Topside	Inner material-rest same	YES	NC
47S	Area 42 Tall V. Tank	Cement Material	YES	NC
48S	Area 42 hopper type tank	Cement Material	NO	NC
	Area 42 (Evap.)	grd. level piping insul.	YES	NC
	Area 42	insul. in bottom of vessels blown on outer insul.	YES	NC
	Area 42	(asphalt type), hopper tank blown on outer material,	YES	NC
	Area 42	top cap seal for tall units asb. woven gasket, pipe insul. topside	YES	NC
	Area 42			
49S	Bectel Whse.	Pipe insul - bulk	YES	RMV
50S	Bectel Whse.	Bulk sheet material	NO	NC

003916

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON & ROBERT G. BURTON

DATE 11-7-84

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS	
51S	Heat Exch.	Liquor line - old cal. silicate	YES	NC
			YES	
17S2	850# Steam Line	Bulk Insul.	YES	NC
52S	Kiln discharge	#1 small dia pipe to slide inner material	YES	NC
			YES	NC
53S	ESP 1 & 2	Cement Material	NO	NC
54S	ESP 1 & 2	Blown asphalt	YES	NC
	Upstairs storage Bectal Warehouse	Bulk pipe lagging, partial roll gasket material	YES	NC RMV
	Grd Level	Old brake shoe assbly.	YES	RMV
	Fac. 45 (Garage)	Piece 3" asb. tape, brake shoe assblys, roll 3. asb. tape, piece sheet gasket material on work top	YES	NC
			YES	RMV
			YES	RMV
	Fac. 45 service area	Overhead pipe insul.	YES	NC
	Kiln Discharge	Air slide asb. cloth	YES	NC
	" "	gaskets, small diameter pipe in middle asb. paper	YES	NC
	" "	insul. Topside ESP ductwork has asb. gasket material	YES	NC
	" "	ESP blown on asphalt insul	YES	NC
	Laboratory - Back Lab	Yellow TC wire on muffle fce.	YES	NC
	" " "	Transite fronts muffle fce	YES	NC
	" " "	4 hoods in back area	YES	NC
	" " "	Also transite inner liner	YES	NC
	Lab-Men's Room	Overhead pipe insul.	YES	NC
	Lab-adj. to AA Room	Asb. sleeves on clamps	YES	RMV
	" " " " "	also old scrap material	YES	RMV
	#8 Lab	Sleeve material in bottom	YES	?

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON & ROBERT G. BURTON

DATE 11-7-83

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS	
	Power House Bldg. 111, Generator	intake diesel engine - insulation	YES	NC
	Power House #5 Air Comp. Bldg.	Inlet/outlet piping, air comp. insul.	YES	NC
	Power House Reducing Stn. Area	600 lb. steam line	YES	NC
		manifold, piping insulation	YES	NC
	Power House Closed Heater	Pipe Insulation	YES	NC
	Power House Boiler Fuel Water	Bulk Insulation	YES	NC
	Power House Steam Turbine housing	Bulk insul., pipe insul.	YES	NC
	Power House Aerator Inks	Bulk Insulation	YES	NC
	Power House Day Tank	Pipe and Bulk Insulation	YES	NC
	Heater for fuel oil		YES	NC
	Power House Condensate Filters	Pipe Insulation	YES	NC
	Power House Flash Tank	Bulk Insulation	YES	NC
	Power House Exchanger-blowdown	Pipe Insulation	YES	NC
	heat Condensate pumps	Pipe Insulation	YES	NC
	Power House #10 Boiler	Inlet/outlet bulk insul., gasket	YES	NC
	Power House #5 & 6 Boiler	Bulk insul. and pipe insul.	YES	NC
	Power House 2nd Level	Bulk insul. and pipe insul.	YES	NC
	Power House #4 & 3 Boiler	Piping & bulk (#3)	YES	NC
	Power House #4 & 3 Boiler	Old asb. tape alongside heater	YES	RMV
	Power House # 1 & 2 Boiler	Pipe Insulation	YES	NC
	Power House 850 lb. steamline	Pipe Insulation	YES	NC
	Power House 300 lb. heater line	Pipe Insulation	YES	NC
	Power House #4 Generator	asb. padding material (2nd level)	YES	R
	Power House #4 Generator	old pipe insulation (1st level)	YES	NC
	Laboratory	Old Precision Scientific	YES	?

003918

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON & ROBERT G. BURTON

DATE 11-7-83

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS	
"	#8 Lab	Drawer & below sink,	YES	?
	" "	Hood transite liner,	YES	NC
	" "	transite exhaust ducts,	YES	NC
	#9 Lab	Sleeves in drawer under	YES	NC
	" "	muffle fce. transite front & back muffle fce.,	YES	NC GLOVES - RPL
	" "	induction htr. under hood has transite, transite hood liner,	YES	NC
	" "	transite exhaust ducts, sleeves in long drawer	YES	NC
	" "	below sink, Precision Science over door seals	YES	NC
	#10 Lab	Transite front & back	YES	NC
	" "	muffle fce. hood exhaust duct transite, gloves	YES	NC GLOVES - RPL
	" "	under hood, transite lined oven	YES	NC
	Upstairs Lab Stor. Zinc Calcium Room	Piece sheet gasket	YES	RMV
	" " "	material, pipe insul. - asb. tape, TC wire, roll	YES	RMV
	" " "	asb. paper	YES	RMV
	Millwright Shop	Gaskets - precut rings	YES	RPL
	Lab #5	Sleeves in small drawer, glove, transite in Hevi	YES	NC GLOVES - RPL
	" "	Duty & Lustin Ovens, asb. paper on hot plate, also	YES	NC
	" "	in double drawers under-neath, hood transite lined	YES	NC
	Lab next to #5 (Bomb Lab)	Transite lined hood	YES	NC
	Electrical Trailer	Roll TC wire	YES	NC
	Fabrication Shop	Welding curtain, several	YES	RPL
		pieces sheet gasket material, gaskets.	YES	RPL
	Instrument Shop	Sheet gasket material	YES	RPL
	Instrument Storage	Flexatudic gasket, TC wire, sheet gasket material	YES	RPL
		003919	YES	RPL

* NOTE: Items without numbers were identified as containing asbestos during the survey.

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON & ROBERT G. BURTON

DATE 11-7-84

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS
	Maintenance Shop (30 Area)	Cut & uncut sheet gaskets, packing, sight glass gasket	YES RPL
	Pipe filters " "	cut ring sheet gaskets	YES RPL
	" "	pipe insul. between 30 Area maint. & control room	YES RPL
	" "		YES RPL
	30 Area Digestion	Lime day tank bulk insul.	YES NC
	30 Area	Cleaning vessel insul.	YES NC
		caustic storage bulk insul.	
	Area 30 - Vertical Heaters	Old insul. asb. around htrs. & flash tanks	YES NC
		flash tops (4) on horiz.	YES NC
	" "	heaters old insul. approx. 14 settlers have old	YES NC
	" "	bulk asb. insul. old washer insul., pipe insul., con-	YES NC
	" "	densate tank, old washer overflow tank insul.	YES NC
	" "	diluter insul.	YES NC
	Filtration Area 35 - red mud	patches of old insul. on several filter fuel tanks,	YES NC
		caustic wash tank bulk insul. caustic htr. tank insul.,	YES NC
	Area 35	Pipe and vessel insul., #1 & 2 clear	YES NC
		Filtrate tank insul., outer	YES NC
	" "	paper insul., Kelley presses & AB presses, paper around	YES NC
	" "	heater valve between 2 storage tanks	YES NC
	Area 45 (PPcT)	Pipe insul. grd. level	YES NC
	" "	S. end digestors; steam	YES NC
	" "	line insul., topside	YES NC
	45 - 1A Storage Cabinet outside	Packing	YES RPL
	Kiln Floor Fac. 40	Water pape gasket, hot air slide gasket material	YES NC
	Fac. 40 ESP	#1-4 ESP blown on insul., duckwork insul. (paper)	YES NC

003920

PLANT SHERWIN

LOCATION

DIVISION

SURVEYED BY RONALD E. BENTON & ROBERT G. BURTON

DATE 11-7-83

ASBESTOS SURVEY

SAMPLE #	SAMPLE LOCATION	APPLICATION	ANALYTICAL RESULTS	
	Fac. 40 ESP	# 3 & 4 ESP; topside - limpet material	YES	NC
	" " "	round ductwork insul. fan housing insul.,	YES	NC
	" " "	8 & 9 ESP hopper insul. (paper) and vessel insul.	YES	NC
	" " "	(paper)	YES	NC
	(Fac. 45, 50, 51) Small Maint. Shed	Roll 3: tape, gasket material	YES	RPL
	Area 45	Small vertical tank & hor.	YES	NC
		unit (adjacent to it) bulk insul. material	YES	NC

NOTE: Items without numbers were identified as containing asbestos during the survey.

003921

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P-M-R- REPAIR REMOVE REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	1	P		164 S	1½	-	21.00	3,444	26-T-10 #5 Feed Tank
	1	P		25 S	1½	-	21.00	525	26-T-11 #4 Feed Tank
	1	P		565 S	1½	-	21.00	11,865	26-T-12 #3 Feed Tank
	1	P		660 S	1½	-	21.00	13,860	26-T-23 #2 Feed Tank
	1	P		540 S	1½	-	21.00	11,340	26-T-14 #1 Feed Tank
	1	P		259 S	1½	-	21.00	5,439	26-T-1 #6 Desilicator
	1	P		244 S	WC	-	6.80	1,659	26-T-1 #6 Desilicator
	1	P		140 S	1½	-	21.00	2,940	26-T-2 #3 Desilicator
	1	P		1035 S	WC	-	6.80	7,038	26-T-2 #3 Desilicator
	1	P		1000 S	1½		21.00	21,000	26-T-3 #7 Desilicator
	1	P		45 S	WC	-	6.80	306	26-T-3 #7 Desilicator
	1	P		300 S	1½	-	21.00	6,300	26-T-4 #5 Desilicator
	1	P		100 S	WC	-	6.80	680	26-T-4 #5 Desilicator
	1	P		300 S	1½		21.00	6,300	26-T-5 #4 Desilicator
	1	P		200 S	WC	-	6.80	1,360	26-T-5 #4 Desilicator
	1	P		50 S	1½	-	21.00	1,050	26-T-6 #2 Desilicator
	1	P		1000 S	WC	-	6.80	6,800	26-T-6 #2 Desilicator
	1	P		151 S	1½	-	21.00	3,171	26-T-7 #1 Desilicator

TOTAL PLANT COST $ 105,077

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003922

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	2	R		1330 S	2	-	21.00	27,930	PH - Deareator Tank
	2	R		820 S	2	-	21.00	17,220	PH - (2) SM Deareator
	2	P		10 S	2		21.00	210	PH - Condensate Filter
	2	P		10 S	2	-	21.00	210	PH - Flash Tank
	2	P		10 S	2		21.00	210	PH - Exchanger Blowdown
	4	P		10 S	2	-	21.00	210	PH - Condensate Pump
	4	P		300 L	4		12.60	3,780	PH - 850 lb Steam Line
	4	P		200 L	3		12.60	2,520	PH - 300 lb Steam Line
	4	P		800 L	WC		7.80	6,240	PH - Misc Pipelines
	4	P		100 L	3		12.60	1,260	PH - 600 lb Steam Line
		R		6	-		4000.00	24,000	Lab Muffle Furnaces
	-	R		8	-		9000.00	72,000	Lab Hoods & Exhaust Duct

TOTAL PLANT COST $ 155,790

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003923

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR
REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS
CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	2	R		5500 S	2"	-	21.00	115,000	24-T-22 #3 Slurry Tank
	2	R		1965 S	2"	-	21.00	41,265	225-T-1 #1 SOP Tank
	7	P		200 S	2"	-	21.00	4,200	PH - #1 Boiler
	7	P		200 S	2"	-	21.00	4,200	PH - #2 Boiler
	7	P		150 S	2"	-	21.00	3,150	PH - #3 Boiler
	7	P		150 S	2"	-	21.00	3,150	PH - #4 Boiler
	7	P		200 S	2"	-	21.00	4,200	PH - #8 Boiler
	7	P		200 S	2"	-	21.00	4,200	PH - #9 Boiler
	7	P		300 S	2"	-	21.00	6,300	PH - #10 Boiler
	2	P		10 S	2"	-	21.00	210	PH - Blowdown Vessel
	7	P		20 S	4"	-	21.00	420	PH - Generators
	7	P		20 S	2"	-	21.00	420	PH - Closed Heaters
	7	P		30 S	WC	-	6.80	204	PH - #5 Air Compressor
	2	P		50 S	2"	-	21.00	1,050	PH Boiler Fuel Oil Htr
	2	P		50 S	2"	-	21.00	1,050	PH - Day Tank

TOTAL PLANT COST $189,019

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003924

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR
REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS
CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR H- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	1	P		100 S	WC	-	6.80	680.00	26-T-7 #1 Desilicator
	1	P		1250 S	1½	-	21.00	26,250.00	30-1-1 thru 10 Heaters
	1	P		2150 S	WC	-	6.80	14,620.00	#1 Dig. Vert Heaters
	1	P		4152 S	3	-	21.50	89,268.00	#1 Unit Digesters
	1	P		555 S	WC	-	6.80	3,774.00	1-1 Flash Tank
	1	P		942 S	WC	-	6.80	6,406.00	2-6 Flash Tank
	1	P		141 S	2	-	21.00	2,961.00	2-9 Flash Tank
	1	P		71 S	WC	-	6.80	484.00	2-10 Flash Tank
	1	P		998 S	1½	-	21.00	20,950.00	30-2-1 thru 10 Heaters
	1	R		2150 S	WC	-	6.80	14,620.00	#2 Dig. Vert Heaters
	1	P		25 S	WC	-	6.80	170.00	Fac 30 Flash Separators
	1	P		967 S	1½	-	21.00	20,307.00	30-3-1 thru 10 Heaters
	1	P		562 S	2½	-	21.00	11,802.00	#3 Dig Vert Heaters
	1	P		374 S	3	-	21.50	8,041.00	#3 Unit Digesters
	1	P		302 S	WC	-	6.80	2,054.00	#3 Unit Digesters
	1	P		180 S	WC	-	6.80	1,224.00	#3 Unit Flash Tanks
	1	P		40 S	1½	-	21.00	840.00	#3 Unit Flash Tanks
	1	P		269 S	1½	-	21.00	5,649.00	30-4-1 thru 10 Heaters

TOTAL PLANT COST $230,100

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER		NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED	6	DUCT INSULATION - METAL JACKET
2	TANK & VESSEL INSULATION WEATHER COATING	7	DUCT INSULATION - WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET	8	FURNACE INSULATION EXTERIOR OF STEEL
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION	9	FURNACE INSULATION INSIDE FURNACE
5	PIPE INSULATION - INSIDE BUILDING	10	BOILER JACKET INSULATION

003925

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- M- R- REPAIR REMOVE REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	2	P		187 S	2½	-	21.50	4,021.00	#4 Dig Vertical Heate
	2	P		51 S	2	-	21.00	1,071.00	#3 Dig Vapor Separato
	2	P		44 S	2	-	21.00	924.00	#4 Dig Vapor Separato
	2	P		670 S	1½	-	21.00	14,070.00	#5 Dig Unit Heaters
	2	P		179 S	1½	-	21.00	3,759.00	#5 Unit Flash Tanks
	2	P		277 S	WC	-	21.00	5,817.00	#5 Unit Flash Tanks
	2	P		39 S	1½	-	21.00	819.00	#5 Unit Flash Separat
	1	R		4320 S	1½	-	24.00	103,680.00	#11 Washer
	1	R		7430 S	1½	-	24.00	174,320.00	#10 Washer
	1	R		7430 S	1½	-	24.00	174,320.00	#9 Washer
	1	R		7430 S	1½	-	24.00	174,320.00	#8 Washer
	1	R		7430 S	1½	-	24.00	174,320.00	#7 Washer
	2	P		1728 S	1½	-	21.00	36,288.00	#6 Washer
	1	R		4147 S	1½	-	24.00	99,528.00	#5 Washer
	2	P		1382 S	1½	-	21.00	29,022.00	#4 Washer
	2	P		372 S	1½	-	21.00	7,812.00	#3 Washer
	2	P		372 S	1½	-	21.00	7,812.00	#2 Washer
	1	R		2592 S	1½	-	21.00	54,432.00	#1 Washer

TOTAL PLANT COST $1,066,335

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003926

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR R- REMOVE REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	1	R		7430 S	2"	-	24.00	178,320	#12 Washer
	1	R		7430 S	2"	-	24.00	178,320	#15 Washer
		R		2828 S	1½	-	24.00	67,872	#1 Settler
		P		1200 S	1½	-	21.00	85,200	#2 Settler
		P		943 S	1½	-	21.00	19,803	#3 Settler
		R		1885 S	1½	-	24.00	45,240	#4 Settler
		P		1413	1½	-	21.00	29,673	#6 Settler
		P		200	1½	-	21.00	4,200	#7 Settler
		P		1493	1½	-	21.00	31,353	#9 Settler
		P		1662 600	WC 1½	- -	6.80 21.00	11,302 12,600	#10 Settler
		P		1131 1131	WC 1½	- -	6.80 21.00	7,691 23,751	#11 Settler
		P		1493	1½	-	21.00	31,353	#12 Settler

TOTAL PLANT COST $666,678

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003927

Sherwin

PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	1	R		1493 S	1½	-	24.00	35,832	#14 Settler
	2	R		286 S	2	-	21.00	6,006	33-E-9 Caustic Heater
	2	P		93 S	1½	-	21.00	1,953	#1 Washer O'Flow Tank
	2	P		200 S	3"	-	21.50	4,300	#3 Washer O'Flow Tank
	2	P		50 S	2½	-	21.50	1,075	Washer O'Flow Premix Tk
	2	R		500 S	1½	-	21.00	10,500	Settler O'Flow Relay Tk
	2	R		528 S	WC	-	6.80	3,590	#1 Barometric Hot Well
	2	R		1037 S	1½	-	21.00	21,777	#1 Wash Water Coll Tank
	2	R		528 S	1½	-	21.00	11,088	#2 Barometric Hot Well
	2	P		767 S 270 S	WC 1½	- -	6.80 21.00	5,216 5,670	#3 Wash Water Coll Tank
	2	P		151 S	1½	-	21.00	3,171	#3 Barometric Condensdr
	2	P		310 S	1½	-	21.00	6,510	#1 Filter Feed Tank
	1	R		3142 S	1½	-	24.00	75,408	#2 Filter Feed Tank
	1	R		3142 S	1½	-	24.00	75,408	#3 Filter Feed Tank
	2	P		665 S 120 S	WC 2½		6.80 21.00	4,522 2,520	#4 Filter Feed Tank

TOTAL PLANT COST $274,546

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003928

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	2	P		331 S	1½	-	21.00	6,921	#5 Filter Feed Tank
				160 S	WC	-	6.80	1,088	
	2	P		40 S	1½	-	21.00	840	Filter Caustic Wash Tan
	2	P		628 S	1½	-	21.00	13,188	#4 Filter Wash Water Tk
	2	P		377 S	1½	-	21.00	7,917	#1 Casutic Clng Tank
	2	P		14 S	1½	-	21.00	294	#1 Caustic Starch Tank
	2	P		9240 S	1½	-	21.00	194,040	#1 Evaporator
	2	P		1005 S	1½	-	21.00	21,105	#1 Evap #1 Effect
	2	P		420 S	WC	-	6.80	2,856	#2 Evaporator
				40 S	1½	-	21.00	840	
	2	P		540 S	WC	-	6.80	3,672	#3 Evaporator
				120 S	WC	-	6.80	816	
	2	P		216 S	1½	-	21.00	4,536	#4 Evaporator
	2	P		490 S	1½	-	21.00	10,290	#5 Evaporator
	2	P		70 S	1½	-	21.00	1,470	#6 Evaporator
				50 S	WC	-	6.80	340	
	2	P		290 S	1½	-	21.00	6,090	#7 Evaporator
				20 S	WC	-	6.80	136	
	2	P		190 S	1½	-	21.00	3,990	#8 Evaporator
	2	P		220 S	1½	-	21.00	4,620	#9 Evaporator
				548 S	WC	-	6.80	3,726	
	2	P		3 S	1½	-	21.00	63	#1 SOP Evaporator
				13 S	WC	-	6.80	88	
	2	P		59 S	1½	-	21.00	1,239	#2 SOP Evaporator
				120 S	WC	-	6.80	816	
	2	P		20 S	1½	-	21.00	420	#3 SOP Evaporator

TOTAL PLANT COST $291,401

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003929

Sherwin
PLANT NAME

ENGINEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	2	P		1882 S	1½	-	21.00	39,522	#4 SOP Evaporator
	2	P		1102 S 1178 S	WC 1½	-	6.80 21.00	7,494 24,738	#5 SOP Evaporator
	2	P		361 S	WC	-	6.80	2,455	33-E-10 Caustic Heater
	2	P		361 S	2"	-	21.00	7,581	30-E-22 Caustic Heater
	7	P		200 S	2"	-	21.00	4,200	45-T-337 Caustic Clng T
	7	P		1600 S	3"	-	21.50	34,400	#1-2 ESP
	7	P		1600 S	3"		21.50	34,400	#3-4 ESP
	7	P		50 S	3"	-	21.50	1,075	#7 ESP
	7	P		75 S	3"	-	21.50	1,613	#8 ESP
	7	P		1700 S	3"	-	21.50	36,550	#9 ESP
	7	P		150 S	3"	-	21.50	3,225	#1 Dust Collector
	7	P		200 S	3"	-	21.50	4,300	#2-3 Dust Collector
	7	P		200 S	3"	-	21.50	4,300	#4 Dust Collector
	7	P		150 S	3"	-	21.50	3,225	#5 Dust Collector
	7	P		50 S	3"	-	21.50	1,075	#6 Dust Collector
	7	P		80 S	3"	-	21.50	1,720	#7 Dust Collector

TOTAL PLANT COST $211,871

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

003930

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	2	P		50 S	3"	-	21.50	1,075	#8 Dust Collector
	2	P		400 S	3"	-	21.50	8,600	#9 Dust Collector
	7	P		200 S	2"	-	21.00	4,200	#1 ID Fan
	7	P		200 S	2"	-	21.00	4,200	#2 ID Fan
	7	P		200 S	2"	-	21.00	4,200	#3 ID Fan
	7	P		100 S	2"	-	21.00	2,100	#4 ID Fan
	7	P		50 S	2"	-	21.00	1,050	#5 ID Fan
	7	P		200 S	2"	-	21.00	4,200	#6 ID Fan
	7	P		100 S	2"	-	21.00	2,100	#7 ID Fan
	7	P		50 S	2"	-	21.00	1,050	#8 ID Fan
	7	M		1000 S	1½	-	13,50	13,500	225 Hood & FD Fan

TOTAL PLANT COST $46,275

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER		NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED	6	DUCT INSULATION - METAL JACKET
2	TANK & VESSEL INSULATION WEATHER COATING	7	DUCT INSULATION - WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET	8	FURNACE INSULATION EXTERIOR OF STEEL
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION	9	FURNACE INSULATION INSIDE FURNACE
5	PIPE INSULATION - INSIDE BUILDING	10	BOILER JACKET INSULATION

003931

Sherwin
PLANT NAME

ENGINEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	4	P		590 L	2"	2	6.65	3,925	Repair only
	4	P		340 L	2"	3	7.00	2,380	Repair only
	4	P		830 L	2"	4	7.60	6,308	Repair only
	4	P		1390 L	2"	6	8.70	12,093	Repair only
	4	P		920 L	2"	8	10.90	10,028	Repair only
	4	P		600 L	2"	10	11.50	6,900	Repair only
	4	P		1220 L	2"	12	12.60	15,372	Repair only
	4	P		430 L	2"	14	14.40	6,192	Repair only
	4	P		690 L	2"	16	16.25	11,213	Repair only
	4	P		240 L	2"	18	18.00	4,320	Repair only
	4	P		120 L	2"	20	20.00	2,400	Repair only
	4	P		50 L	2"	22	22.00	1,100	Repair only
	4	P		370 L	2"	24	24.00	8,880	Repair only

TOTAL PLANT COST $91,111

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER		NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED	6	DUCT INSULATION - METAL JACKET
2	TANK & VESSEL INSULATION WEATHER COATING	7	DUCT INSULATION - WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET	8	FURNACE INSULATION EXTERIOR OF STEEL
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION	9	FURNACE INSULATION INSIDE FURNACE
5	PIPE INSULATION - INSIDE BUILDING	10	BOILER JACKET INSULATION

003932

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REMOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B.Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	4	R		590 L	2"	2	16.80	9,912	
	4	R		340 L	2"	3	17.20	5,848	
	4	R		830 L	2"	4	17.80	14,774	
	4	R		1390 L	2"	6	18.70	25,993	
	4	R		920 L	2"	8	30.10	27,692	
	4	R		600 L	2"	10	36.20	21,720	
	4	R		1220 L	2"	12	42.60	51,850	
	4	R		430 L	2"	14	45.50	19,565	
	4	R		690 L	2"	16	56.65	39,089	
	4	R		240 L	2"	18	63.60	15,264	
	4	R		120 L	2"	20	70.35	8,502	
	4	R		50 L	2"	22	78.10	3,905	
	4	R		370 L	2"	24	85.30	31,561	

TOTAL PLANT COST $275,675

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION

Sherwin
PLANT NAME

ENGINNEERING ESTIMATING SHEET FOR REHOVAL/REPLACEMENT OR REPAIR OF ASBESTOS CONTAINING INSULATING MATERIAL

DATE 2-19-87

PREPARED BY: G. B. Smith

ITEM NO.	TYPE INSULATION SEE NOTE BELOW	P- REPAIR M- REMOVE R- REMOVE& REPLACE	YEAR WORK TO BE PERFORMED	QUANITITY L-LINEAL FT S-SQ FT	THICKNESS INCHES	PIPE DIA.	UNIT COST	ITEM COST	LOCATION/COMMENTS
	4	P		1780 L	WC	2	2.60	4,628	Replace Weather Cove
	4	P		1010 L	WC	3	3.20	3,232	Replace Weather Cove
	4	P		2500 L	WC	4	3.60	9,000	Replace Weather Cove
	4	P		4170 L	WC	6	4.80	20,016	Replace Weather Cove
	4	P		2760 L	WC	8	5.80	16,008	Replace Weather Cove
	4	P		1790 L	WC	10	6.80	12,172	Replace Weather Cove
	4	P		3660 L	WC	12	7.80	28,548	Replace Weather Cove
	4	P		1290 L	WC	14	9.00	11,610	Replace Weather Cove
	4	P		2060 L	WC	16	10.00	20,600	Replace Weather Cove
	4	P		710 L	WC	18	11.00	7,810	Replace Weather Cove
	4	P		350 L	WC	20	12.20	4,270	Replace Weather Cove
	4	P		140 L	WC	22	13.00	1,820	Replace Weather Cove
	4	P		1100 L	WC	24	14.10	15,510	Replace Weather Cove

TOTAL PLANT COST $155,224

GRAND TOTAL $3,759,012

NOTE:

TYPES INSULATION (INSERT NUMBER ONLY IN TABLE)

NUMBER	
1	TANK & VESSEL INSULATION METAL JACKETED
2	TANK & VESSEL INSULATION WEATHER COATING
3	PIPE INSULATION - OUTSIDE WITH METAL PROTECTIVE JACKET
4	PIPE INSULATION - OUTSIDE WITH WEATHER PROTECTION
5	PIPE INSULATION - INSIDE BUILDING
6	DUCT INSULATION - METAL JACKET
7	DUCT INSULATION - WEATHER COATING
8	FURNACE INSULATION EXTERIOR OF STEEL
9	FURNACE INSULATION INSIDE FURNACE
10	BOILER JACKET INSULATION