PLAINTIFF'S EXHIBIT
USG-1512

NATIONAL ASBESTOS MANUFACTURING CO.
REPORT ON INVESTIGATION

CS003 0019

File under _____

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Compiled by _____

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UNITED STATES GYPSUM COMPANY
CHICAGO

Form 1803 8-29

L901-1589
1819

REPORT ON NATIONAL ASBESTOS MFG. CO.

163 HENDERSON ST., JERSEY CITY, N. J.

SEPTEMBER 11, 1933

LOCATION

The plant is located at the foot of Henderson Street in Jersey City about 1/2 mile from the entrance to the vehicular tunnel to Manhattan and the same distance from ferries. It is on the CRJ railroad and thru connections at Hoboken and Weehawken with other principal railroads, has favorable freight rates to the eastern states. There is a slight freight advantage over other N.J. and Penna. plants on shipments to New England. Since 80% of the present shipments move by truck into New Jersey and the Metropolitan area its location is particularly favorable for serving this trade, no other plant having an equal location.

Directly across the street from the plant is the ship of a dry dock company located on the Morris Canal and arrangements could probably be made for loading water shipments at this point.

Located near New York City and the oil refinery section of New Jersey it is very favorably located with reference to supplies of raw materials particularly the principal materials such as asbestos, asphalt, rags, wool waste and paper stock. Asphalt is obtained by tank truck from Bayonne at a haulage rate of $.37 per 100 gallons. Rags, wool waste and paper stock are bought on a delivered price basis, delivery being by truck.

CS003 0020

MERCHANDISING

A study of current price lists on August invoices indicates that all items not covered by patents are subject to varying discounts according to customer and that prices of all these fluctuate widely with minimum prices in many cases over 50% below maximum prices. Invoices also disclosed that a larger share of business is in small shipments, many invoices running from $1. to $10. Many of the smaller sales were "bearer" or "cash sales" indicating products being sold direct to anyone calling at plant. In most such cases prices were above regular list prices. Only a few large invoices were observed and in nearly every case these were to large jobbers and at especially large discounts. A list of principle customers was obtained by Mr. Shaver.

Price lists for this company were available for roofing and liquid roofing but prices of pipe covering and other asbestos products were based on Philip Carey published prices list, although considerable variation in discounts allowed was observed. These price lists are attached and a comparison of list prices with prices received is shown on a separate sheet with the cost of the products.

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COSTS VS. SELLING PRICE

SHINGLES	COST/SQ.	LIST PRICE L.C.L. (Blends	LIST PRICE C.L. 30# up)	LOWEST AUG.PRICE	% GROSS ON AUG.LOW
10" sq. butt	2.337	4.71	4.00	3.42	46%
12½ " "	2.902	5.94	5.05	4.54	57%
11-3/8 hex.	1.956	3.76	3.20	3.05	56%
12½ " std.	2.240	3.88	3.30	3.15	41%
12½ " giant	2.658	5.29	4.50	4.30	62%
12½ " massive	2.554	4.29	3.65	-	-
10" cut corner	2.402	4.53	3.85	3.20	33%
Brick siding	2.594	6.12	5.20	5.20	100%
Nu Bricks	2.346	4.94	4.20	4.20	79%
Re-roofers	1.633	3.29	2.80	2.35	44%
Sta-fast	1.802	3.89	3.30	-	-
9x12½ Individual	2.840	5.12	4.35	4.35	53%
12x16 "	3.445	7.00	5.95	5.23	52%
12" sq. butt giant	2.839	6.06	5.15	4.30	52%
12" " " massive	2.723	5.53	4.70	-	-
Part dubl-butt	2.935	5.53	4.70	5.29	80%
Full " "	3.835	7.47	6.50	6.25	63%
ROLLS	**PER ROLL**				
75# Slate	.926	1.65	1.40	1.20	29%
85# "	1.021	(1.76 (1.95	1.50 1.65	1.35	33%
1 ply Namco	.607	.82	.70	.55	10%
2 " "	.667	1.00	.85	.70	5%
3 " "	.751	1.18	1.00	.85	13%
2 " Natasco	.748	1.18	1.00	-	-
3 " "	.829	1.41	1.20	1.30	57%
4 " "	.911	1.65	1.40	1.50	65%

SATURATED FELTS & BUILDING PAPERS	PER ROLL	PER TON	PER ROLL L.C.L.	PER ROLL C.L.	PER ROLL	PER TON	
#12 & 24	.53	25.00	1.36	1.15		36.00	44%
#15 & 30	.65	24.00	1.68	1.43		36.00	50%
20# red rosin	.351	35.10	-	-	.40		14%
25# " "	.421	33.60	-	-			-
30# " "	.493	32.90	-	-			-
35# " "	.564	32.20	-	-			-
#25 slaters felt	.395		-	-	.50		27%
30 " "	.449		-	-	.65		45%

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COSTS VS. SELLING PRICE

LIQUID ROOFING	COST	LIST DEALER	LIST JOBBER	LOWEST AUC.PRICE	% GROSS ON AUC.LOT
Asbestos Fiber Plastic					
Black 5#	.128 ea.	.30	.188	.175 ea.	37%
" 10#	.201 "	.45	.300	.270 "	34%
" 25#	.019 lb.	.04	.026	.024 lb.	26%
" 50#	.014 lb.	.03½	.0225	.017 lb.	21%
Red 100#	.024 lb.	.06	.056	.07½ lb.	213%
Coating Black 1/2 gal.	.123 ea.	.30	.188	.28 ea.	128%
1 "	.180 "	.45	.300	.27 "	50%
2½ "	.176 gal.	.40	.263	-	-
5 "	.132 "	.35	.225	.20 gal.	52%
30 "	.114 "	.35	.225	.30 "	163%
Maroon 1 "	.219 ea.	.80	.562	.80 ea.	187%
Green 1 "	.450 "	1.00	.638	.72 "	60%
Red 5 "	.234 gal.	.80	.562	.80 gal.	156%
Asphalt Paint 1 gal.	.207 ea.	.50	.338	.35 ea.	69%
5 "	.149 gal.	.40 gal.	.225	.268 gal.	80%

PIPE COVERING		R.R. ETC.	JOBBERS		
1½" Air Cell 2 ply per foot	.030	.073	.066	.043	43%
3 " "	.036	.079	.073	.046	28%
4 " "	.041	.092	.086	.056	36%
1½" Celerbestos "	.039	?	?	.066	43%
2" Wool felt 1/2" thick "	.036	.112	.101	.101	180%
3/4" " "	.043	.126	.115	.079	83%
1" " "	.064	.144	.133	.115	113%
Air cell board 1" thick per sq.ft.	.085	.084	.078	.069	176%
#1 Asbestos Cement per bag	1.309	?	?	2.700	106%
2 " " " "	1.010	?	?	1.650	63%
3 " " " "	.879	?	?	1.100	25%
5 " " " "	.850	?	?	1.100	29%

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PLANT & EQUIPMENT

The plant of reinforced concrete sprinkled construction consists of 4 main groups -

1 - The 3 story and basement concrete pipe covering plant with boiler house, engine room, machine shop and truck garage located at the south end. A small space between these auxiliary buildings is used for double dipped shingles. The main building is occupied at the north end of the 1st floor by the plant office and a truck loading berth the remainder being used for storage except a small space at south end for packing asbestos cements. The 2nd floor is used for packing pipe covering and for storage except at south end where asbestos cements are mixed. The top floor is occupied by the pipe covering manufacturing operations with a corrugator for asbestos paper, several covering machines, saws, etc. The basement of this building is used for the storage of asphalt shingles brought thru a tunnel at the north end from the basement of the roofing plant, with the south end of the basement occupied by the idle asbestos shingle plant. All equipment is driven by a single cylinder corliss engine.

2 - The paper mill and roofing plant, also of concrete construction is directly west of the pipe covering plant with a railroad siding between. The only connection with the pipe covering building is thru the above mentioned tunnel. This building is a high one story and basement. The main room is occupied along the west side by a 3 cylinder 36 ton capacity paper machine, with drying section of 67 cylinders and reminder at north end. Directly south of the paper machine (west end) are two rotary screens for paper stock and south of this two batch beaters for preparing asbestos paper stock. The east side of building is occupied by the roofing machine, with a capacity of 180 roll squares per hour. This has a 2 cylinder paper drying, an ample dry looper, a 7 gate asphalt saturation tank, color devices for all colors and blends, an adequate finished looper and rolling equipment and shingle cutting devices arranged on 3 levels, basement, main floor and mezzanine, for producing square butts, hexagon, brick siding and part and full double butt shingles. All equipment in this building is driven by a compound Corliss engine located south of the roofing machine and receiving steam from the main power house. A small saturator with looper and rolling equipment for making saturated felts is located at north end of the roofing machine. A small office for the foreman is in northeast corner. In addition to the shingle equipment and storage in basement, there are the wooden stuff boxes for the paper machine, the asphalt tanks for roofing machine and small saturator and the bins for storage of slate and other grits.

3 - A five story and basement concrete rag cutting and beating plant for preparation of rag paper stock together with the liquid roofing plant, shingle and roll goods storage sheds are located west of the paper mill at roofing building separated by a 2nd railroad siding. The storage buildings are of one story warehouse type and are occupied entirely with stocks of raw materials and finished products. The liquid roofing plant is a small brick building with one room for manufacture and one for storage of liquid roofing and plasters. The five story building is occupied in the basement by three heater motors

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and a motor driven Jordan; the 1st floor by 3 beaters, the 2nd floor for storage, the 4th floor with storage and means for weighing out rags and feeding beaters and the 5th floor with rag storage and rag cutter.

4 - Five 10,000 gallon oil fired stills are located at the south end of the plant together with auxiliary tanks and pumping equipment. These are not covered by a building because of fire hazard. Three of these stills are south of the No. 1 group and two are south of the No. 2 building.

A small warehouse building is now being constructed at the extreme south end of the property independent of all other buildings and is to be used for retail distribution of products made at this plant by a presumably independent company who will rent the space from the owner.

Additional storage space has been provided by erecting sheds on the roof of the 3 story pipe covering building and the 5 story rag storage and cutting building.

In general the plant buildings are well constructed and adequate and the equipment is well designed and constructed to perform its functions. There are a number of places where equipment is inadequate or improperly designed which are commented on as follows: -

1 - PIPE COVERING PLANT - The driving of small pieces of equipment scattered over three floors is uneconomic. It serves to provide exhaust steam for paper drying but appears more costly than if live steam was used because of the heavy friction load.

2 - BOILER AND ENGINE ROOM - Inadequate coal unloading and ash handling facilities are provided resulting in high cost. Riley Stokers do not properly fire boilers and hand firing thru side doors is resorted to. The two boilers are required constantly to supply steam for power and drying, allowing no time for cleaning and repairs. The single cylinder Corliss engine for driving pipe covering machinery appears antiquated and inefficient.

3 - PAPER MACHINE - Now has a capacity of about 36 tons per day and cannot be speeded up beyond 40 tons per day because of cast gears on dryer section. Location of beaters and Jordan in 5 story building with screens next to paper machine requires pumping of stock from beaters to screens in the mill, back to Jordan and again back to paper mill. Relocation of Jordan or screens would reduce pumping. There is room vertically to increase the number of dryers which with installation of cut gears in place of present cast gears would allow increased production to probably 60 tons per day. Such an increase would probably require additional Jordan capacity but the present three beaters would be sufficient. The paper machine is operated on a closed circuit and has two save-alls. Observation of waste overflow indicates very little water wasted but a plugged connection to city sewer indicates considerable stock had been wasted into sewer either due to poor operation or to insufficient save-all capacity. Rearrangement of storage facilities for finished paper should be provided to reduce the present high cost of moving to the 5 story building and back again to the roofing machine.

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4 - ROOFING MAC LINE - The present capacity of 180 roll squares per hour is less than the capacity of any of the shingle cutting machines and could be increased with additional cooling capacity on the present finished looper or increase in length of the looper. Higher speeds are now run in winter when outside temperatures assist cooling. The limit of capacity would be determined by the saturator and it is possible that the capacity could not be increased beyond 210 roll squares per hour without increased saturating capacity since 6 of the 7 gates are now employed at 180 roll square rate. Increased saturating capacity could be obtained by deeper saturating tank without changing the number of gates. Provision for collection of slate and mica dust should be made to provide better working conditions and eliminate a definite silicosis hazard. At present when running smooth mica covered rolls the entire plant is filled with mica dust and it is even evident outside the plant.

Rearrangement of roll storage facilities is necessary for increased capacity and at present capacity to reduce handling costs. All rolls are now moved by hand truck the entire length of plant to roll storage at south end and then back again for truck loading. Automatic roll handling equipment to convenient storage should be provided.

5 - SHINGLE CUTTING MACHINES - Are adequate for all styles and for increased capacity. Slight changes are necessary on the brick siding machine to prevent waste and seconds caused by folding over when cut-off knife causes sheet to jump.

Shingle handling equipment is inadequate for present outputs. Handling of square butts and cut corners from Langston machine in basement is by skids to packing tables in basement. Finished bundles are stored in basement of No. 1 and No. 2 buildings and must be moved up a small elevator to cars or up a conveyor to trucks. A continuous conveyor from take-off to Langston machine to shingle warehouse at west would improve conditions. A similar continuous conveyor should be provided for the hexagon shingle machine on main floor and from brick siding machine on mezzanine floor.

6 - SHELL SATURATOR - This is an efficient unit but improperly located at the take-off end of the hexagon shingle machine on main floor. Its close location to east wall also prevents changing rolls without stop. Eventually this should be moved to a location at south end of plant to obtain asphalt from stills by gravity rather than by circulating pump as at present and to allow for continuous operation and to provide room for better handling of roll and shingle goods and possible increased finished looper capacity.

7 - Slate and other grit storage in #2 basement is inadequate and handling costs are high. All slate is unloaded on the east side of the building and when stored in bins along west wall must be handled twice. Better bin facilities and unloading and conveying equipment should be provided.

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8 - LIQUID ROSIN DEPARTMENT - is adequately equipped but poorly located. Practically the entire output must be hand trucked a considerable distance for truck loading. A definite fire hazard because of use of naphtha requires careful consideration in relocation. No great expense would be involved in moving equipment.

C5003 0027

QUALITY OF PRODUCTS

All products appear to be of good quality as judged by visual observation. Control of quality is vested in an "inspector" whose duty is to pass on quality of roofing, pipe covering and liquid roofing. The same man is responsible for operation of liquid roofing department, supervises shingle packing and handles first aid work so that in the limited time available his inspection consists largely of visual observation and checking of weights and dimensions. No tests are made to check felt content or weight of slate although percentage saturation is checked at least once each day. No chemical tests are made and no equipment available because of Mr. Scharwath's expressed disgust with such methods.

Weights of all roofing products were reduced recently about 4% and now barely meets Underwriter's specifications.

The furnish for felt paper is frequently varied to meet changing prices of rags, wool and paper and does not remain constant over long periods. This undoubtedly results in variable quality.

There has undoubtedly been a general cheapening of the product recently to meet demands of Mr. Scharwath for reduced costs. This is observed in the weight reductions, in cutting amount of nails and lap cement in fixtures and in obviously deliberate under dimensioned shingles. Paper wrapping for rolls is now the thinnest and cheapest kraft compared to former good grade used. Increase in the proportion of the filler used in coating has also been resorted to and red rosin building paper has had considerable red clay added to increase weight and reduce cost.

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PATENTS

No roofing patents have been developed by this company and they now own only one such patent, that for full double butt shingles. This was assigned to Mr. Scharwath by the owner Mr. Whitmore but royalties are paid him at the rate of 5¢ per square with a minimum of $1000. per year. On present output of this type the minimum payment makes the royalty 12 to 15¢ per square.

Hexagon double dipped and multicolor shingles are made under licence from the P&L Corp. The basic multicolor patent is said to be weak but is surrounded by 15 or 20 nuisance patents which make paying royalty cheaper than fighting validity.

Brick siding is made under licenses also from P&L Corp. although patents were originally granted to Bird on this product. Apparently an exchange of licenses between Bird & Flintkote has made P&L the licensing body for this patent.

Two patents have been issued to Scharwath on his Pyrobestos pipe covering although Phillip Carey produces a similar product known as Vitrobestos.

All other roofing and pipe covering products are non-patented articles.

There is also a patent issued in 1925 on an individual lock shingle.

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MANAGEMENT & PERSONNEL

The attached organization chart shows the management, office and factory personnel. Factory employee were taken from August 22nd payroll and the balance from observation and information given by Mr. Scharwath.

The management is centered in Mr. Scharwath but his own interest in plant operation has resulted in his becoming a plant manager with little apparent control over sales. Mr. Scharwath exercises the functions of treasurer and credit manager and handles compensation and employee relations. Control of sales is left to the sales managers with Mr. Scharwath going thru each days invoices in a superficial way checking prices and discounts.

Mr. Scharwath's interest in the plant has resulted in his directing all operations and maintaining contact with all department heads and foremen so that no management ability has been allowed to develop in these men. None of them have any ideas of cost, planning or control of operation except to carry out orders issued by Mr. Scharwath. Specific comments by individuals are as follows: -

Mr. Limroth special sales was formerly N.Y. sales manager for Ruberoid and was released after 30 years service. With some independent income he and his assistant Mr. Reginier were taken on by Mr. Scharwath to push Dubl Butt Shingle sales. They both have a 5 year contract but Mr. Scharwath states this has been broken by their failure to push Dubl Butt sales. Mr. Scharwath further states he would take care of this contract so that there would be no obligation to U.S.G. Mr. Limroth is reported to be a heavy drinker and high liver and would be of little value to us.

Mr. Thornton is not considered of great value by Mr. Scharwath and probably be replaced if we do not acquire this plant.

No information was obtained with regard to the pipe covering sales manager.

Mr. Turner, office manager, is a sub-servient type well suited to present type of management but not suited to USG management. He has gained considerable knowledge of office affairs in his four years of service but has instituted no new methods and office procedure generally is antiquated and poorly managed. His retention as cashier might be considered but a good office manager would be necessary under U.S.G. operation.

W. B. Jones, purchasing agent, is a kindly middle aged gentleman who knows considerable about sources and prices of materials although actual buying is largely controlled by Mr. Scharwath. Mr. Jones would be of some value to us at least in early stage of ownership.

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Harro, the inspector is of fair plant foreman caliber. He is about 38 years of age, has been employed about 3 years having previously been an inspector for Chevrolet. He is not qualified for quality control but could be used as a department foreman. The liquid roofing foreman under Harro is a typical working foreman.

C. A. Sandusky was formerly employed by J.M. and has been with National 12 years. He receives $7500 per year and has the largest single responsibility and authority aside from Mr. Scharwath. He is about 40 years of age and is a well built husky individual of the type of Pete Canshaw or August Lohmeich, knowing his plant operation well but having little management ability. He would be entirely unqualified for plant manager but could perform creditably in his present capacity under a good plant manager but would have to have his rate reduced.

Schack the roofing superintendent is really a foreman on the roofing machine. He receives $50.00 per week and probably could be continued but would require some rate adjustment.

A. Merholz, master mechanic, is a German about 35 years old. He appears to be a good mechanic personally but lacks ability to direct this work adequately. Could be continued for the present. His rate is $55. per week.

Herman Scharwath, a son is a young man about 35 who apparently has little ability in the eyes of Mr. Scharwath or the other plant men. He was absent from the plant most of the time so was not directly observed as much as the other men. He carries the title of maintenance engineer but has no direction of maintenance, his duties being supervision of covering department and new construction. Mr. Scharwath, Sr. proposes to provide for Herman and another younger son employed in the office in event U.S.G. acquires this plant.

L. D'Amato in active charge of covering department is a typical Italian foreman of the better type who has come up thru operations. His only ability is in his long knowledge of the operation. He receives $45.00 per week.

C. Major in charge of loading and shipping of pipe covering and roofing, truck operation and manufacture of asbestos cements is an active young man about 30 years old of average foreman caliber. He receives $35. per week.

The above covers the management personnel and in general it is definite that considerable change would have to be made in the men employed and the allocation of duties.

Tables of the hourly and piece rates paid in the plant are attached and a tabulation of the average hourly earnings by departments during June and July.

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HOURLY RATES

COVERING

2 Specialty men	.30
1 Utility man	.35
4 Pyrobestos	.30
1 "	.37
1 "	.35
1 Corrugator	.35
1 "	.30
Air cell boards	.30

CEMENT DEPARTMENT

1 Mixer	.37
1 Helper	.35
3 Loaders	.30

BAG UNLOADERS

1	.40
2	.37
1	.35
10	.30

CHAUFFEURS

6 5.50 and 5.83 per day

BACK COVERING

1	.47
2	.25

CRATES

1	.35

MAINTENANCE

1	.45
2	.35
3	.30
2	.25

MACHINE SHOP

1	.60
2	.55
1	.40

POWER

2 Engineers 6.25 per day
2 Firemen 4.75 per day plus 25¢/day bonus for good CO_2
1 Ashes .30
1 Coal pass .33

MACHINE LOADING

1	.40
3	.30

LIQUID ROOFING

1	.40
1	.30

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WAGE RATES

FELT MILL

2	Machine tender	.65
2	Beater engr.	.45
1	Fireman	.50
1	"	.35
2	Rag cutters	.45
2	" "	.30
7	Beater helper	.30
4	Winder men	.30
2	Deck tender	.40
1	Oiler	.40
2	Pile rolls	.30

SHINGLE PACKERS - PIECE RATES

10" sq. Tab	bundles	1-3/4¢
12½" "	"	1-1/2¢
Cut Corners	"	1-3/4¢
Giants sq. Tab	"	1-1/2¢
10" Hexagon	"	1-3/4¢
11-3/8" "	"	1-3/4¢
12" "	"	1-3/4¢
12½" "	"	1-1/2¢
Sta Tant	"	1-3/4¢
Re Roofers	"	1-3/4¢
9x12" Inkliv.	"	2¢
12x16" "	"	1-3/4¢
Double Dip	"	2¢
Fold Under	"	2¢
Brick Siding	"	1-3/4¢

Label shingle boards packed 60¢/100 labels

Label shingle boards loose 30¢/100 labels

ROOFING

1	Machine tender	.45
1	Coater	.35
3	Slate	.30
1	Cutter	.55
1	"	.45
1	"	.35
3	"	.30
1	Oiler	.35
1	"	.30
1	Conveyor	.30
1	Yabman	.30
1	Labels	.20
1	Looper	.35
1	Stills	.50
1	Soapstone	.30
1	Dry Looper	.35
1	Helper rolls	.30
2	Part time rolls	.30
2	" " conveyor	.30
1	Saturator	.38
4	"	.30
1	Recover waste	.35

[illegible] & LABELLING ROLLS

75% & 85% slate rolls) 100% asbestos roll)	1.25/100 r
All up to 65%	1.10/ "
Large roll label	.50/ "
Small " "	.30/ "

NIGHT LOADING

$1.50 per truck, 2 men

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COVERING PIECE RATES

AIR CELL COVERING PIECE RATES PER 100 UNITS

SIZE	2 PLY	3 PLY	4 PLY	COLOR	6 PLY COLOR TOOL FELT
1/2	.80	.80	.80	1.60	1.10
3/4	.80	.80	.80	1.60	1.10
1	.75	.75	.80	1.50	1.10
1-1/4	.75	.75	.80	1.50	1.10
1-1/2	.75	.75	.80	1.50	1.10
2	.75	.75	.80	1.50	1.10
2-1/2	.80	.80	.90	1.60	1.25
3	.90	.90	1.00	1.80	1.35
3-1/2	1.10	1.15	1.20	2.30	1.70
4	1.15	1.20	1.25	2.40	1.75
4-1/2	1.25	1.30	1.35	2.60	2.00
5	1.50	1.60	1.70	3.20	2.25
6	1.60	1.70	1.80	3.40	2.40
7		2.00	2.00	4.00	
8		2.50	2.50	5.00	
9		3.00	3.00	6.00	
10		4.00	4.00	8.00	
12		4.50	4.50	9.00	

Over 12 - 50¢ per hr.

time (learners 40¢
work (reg. 45¢

SPONGE PIPE COVERING

	1"	1-1/2"	2"
1/2 to 2	1.50	2.00	2.20
2-1/4 to 4	2.00	2.20	2.65
4-1/2 to 6	2.65	3.10	3.55
7 and 8	3.10	3.55	4.00
9 to 12	3.55	4.50	5.50

For double thick add 75% to rate for 1/2 to 8
" " " " 95% to rates over 8"
" waterproof jacket add 15% on all above 3"

TOOL FELT

	1/2" & 3/4"	1"
	.80	.80
	.80	.80
	.75	.80
	.75	.80
	.75	.80
	.75	.80
	.80	.90
	.85	.95
	.85	.95
	.90	1.00
	1.10	1.30
	1.35	1.55
6 & up	1.55	1.65

For double thick add 40% to rate. For 1 layer waterproof paper add 5%. For 2" solid thick add 1/3 to 1" rate.

PIPE COVERING

BANDS

8" to 18"	33¢/M
19" to 24"	37
25" to 28"	40
Time work	25¢/hr.
Learners	22¢/hr.

SAWS

Wool felt	10¢ per 10.
Air cell	6¢ " "

WRAPPING

Wool felt	19¢ per 10.
Air cell	13¢ " "

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INCLUDES PIECE WORKERS, HOURLY WORKERS & SALARIED

EXCLUDES ALL FACTORY PAYROLL.

AVE. WAGE RATES PAID HERE	JUNE	JULY		JUNE	JULY
Color cell	.33	.39	Ship covering	.60	.603
Air cell	.427	.383	" roofing	.60	.603
Pyro.	.470	.483	Packing	.47	.379
Corrugator	.33	.33	Crates	.35	.35
Spec.	.393	.398	Mite cover loaders	.325	.302
Bldg.	.30	.30	Mach. Shop	.614	.578
Saw	.432	.418	Power	.421	.425
Bands	.207	.221			
Utility	.415	.35	PAINT		
Wrap.	.279	.272			
Cement	.30	.339	Days	.39	.385
Wool felt	.424	.403	Mite	.366	.370
Car unloaders	.332	.329	LOT		
Plant maint.	.324	.314			
Chauffeurs	.615	.60	Sfg.	.365	.359
			Pkg.	.290	.316
			Ldg.	.324	.321
			Recovering	.311	.257
			Mite Load	.32[illegible]	.30[illegible]
			Small mat.	.334	.329
			Liq. Roof	.384	.377
		All factory average		.383	.374

CS003 0035

COSTS

No cost records were available and in order to obtain accurate information on costs it was necessary to calculate them from payroll and production information. The figures thus obtained are probably not entirely accurate and are not in exactly the same form as would be used by our company. They are however sufficiently reliable to give a general picture and clearly indicate that costs at this plant are high, particularly labor costs.

The high labor costs are not due to high wages as the rates prevailing are lower than would be expected in this area, averaging about 38¢ per hour for all time and piece operations in July. The general high costs can be attributed to three major causes. 1 - Poor management and control and lack of planning. 2 - High handling costs due to improper location of storage and lack of proper conveyors and handling equipment, 3 - Low grade supervision resulting in low labor efficiency.

Another factor resulting in high total costs is waste and damaged goods due to careless operation.

Raw material prices while roughly in line with general market appear to be slightly high on rags, wool and other paper stock and perhaps slightly high on asphalt.

Specifically the following comments are made on various items and operations:

Pipe Covering Plant. Practically all covering operations are on piece work and labor efficiency is fairly good. Costs appear high due to improper planning and power cost in this department is high because of central line shaft drive. Labor costs would be increased about 20% or five cents per section including overhead labor under N.I.R.A.

Boiler House - Costs of handling coal and ashes are high. Fuel cost is high because of part hand firing to supplement improper stoker operation. Labor cost would be increased 15% under N.I.R.A.

Paper Mill - The average conversion cost per ton for all felt and asbestos papers of $12.97 does not appear high but if proper separation of the two types of paper could be made the felt paper conversion would be definitely higher but probably not over $15.00 which is still a good cost. This average conversion could probably be reduced from $12.97 to $11.00 per ton by improved management and better labor control. This would include better handling costs and reduced costs in rag preparation which are both high at present. At present about 2/3 of driers are on exhaust steam and 1/3 on live steam and on damp days drying difficulty is experienced. There is more than enough exhaust steam for the dryers using it and exhaust steam is wasted. Purchased electric power costs only $.008 to $.01 per KWH so that use of more electric power would undoubtedly reduce power costs and improve heat balance. Shrinkage of 11-3/4% on felt, 8.1% on chip and 5.65% on asbestos paper for seven

CS003 0036

COSTS (Cont'd.)

months are considered good. The mill operates on closed circuit but there is some waste to the sewer and shrinkage could probably be reduced still further, resulting in lower total costs. Present felt paper cost of $32.00 per ton figured on average conversion could probably be reduced, to $28.00 per ton under U.S.G. operation. With the differential between felt and asbestos conversion this would give about $31.00 felt costs. Labor costs would be increased 15% under N.I.R.A. or about $.95 per ton including overhead labor..

Roofing - The roofing conversion cost of $.29 per roll square is definitely high compared to South Bend and St. Paul. The direct labor cost is high because of congestion and resultant inefficiency in handling of roll goods and shingles. No separation of labor costs on the roofing machine are made but the operation of saturation and asphalt coating appear reasonably economic. The cost of supplying slate and other grit coatings is high. The average rate of production of 180 roll squares per hour is about 25% below South Bend and 15% below St. Paul. This can be increased to 210 roll squares per hour at present, as the machine is capable of a speed of 120 feet per minute and occasionally runs at this speed. By increased cooling capacity on finished looper and the use of all seven saturating gates the machine can produce 240 roll squares per hour. This would reduce conversion costs to $.22 per roll square and with improved handling devices for grits, roll goods and shingles and better labor control this conversion could be further reduced to $.17 or less per roll square or closely in line with South Bend. Labor costs would be increased about 15% under N.R.A. or about $.03 per roll square including power, maintenance and general overhead labor. These costs include the labor for operating asphalt stills.

Saturated Felts - Costs on this unit are low although slight further reduction could be made by relocation and easier means of supplying and changing rolls of felt paper. Increase of 15% in labor rates under N.I.R.A. would increase costs only about 2¢ per roll.

Liquid Roofing-Operations are relatively efficient except for handling costs to cars and trucks. Present conversion of $.136 per 100 lbs. could be reduced to $.110 under better management. 15% increase in labor under N.I.R.A. would increase costs $.013 per cwt.

Asphalt Blowing - This operation appears the most efficient of any operation at this plant and is subject to little improvement. The operation of blowing a 15,500 gallon still requires a total of 700 gallons of oil of which 150 gallons is recovered from the still gases.

Cost of asphalt and blowing is as follows:-

Asphalt F.O.B. Bayonne	$.045 per gal.
Trucking	.0087 " "
550 gal.fuel oil @.024/gal	.0009
Labor 30 hrs. @ 35¢	.0088
Shrinkage 3½%	.0016
	$.0580 per gal.or $13.70 per ton

CS003 0037

COSTS (Cont'd.)

In calculating roofing costs $12.50 per ton for asphalt was used as the labor for blowing is included in the roofing conversion labor.

Factory Operation Cost - In all costs we have used the factory operation costs for the first seven months of 1933. This includes all coal and fuel oil, power, power labor, factory supplies, taxes, insurance, office expense, paper mill felts and wires and other general items but each item is prorated so that various departments bear a reasonably proper proportion. The item of factory operation also includes truck operations amounting to about $20,000 per year, which would not be charged to costs under U.S.G. operation. Plant management salaries are not included however so no adjustment of the truckage item has been made as the salaries of a plant manager, roofing superintendent, a covering superintendent, office manager, and inspection which are omitted from cost now would under U.S.G. operation approximate an amount about equal to the trucking costs, less a reasonable amount for incidental plant trucking.

Factory Maintenance - These charges were prorated to departments in accordance with the method now in use.

Detailed Costs - Attached are tabulations of the cost of various products as calculated. Comparison with similar costs at St. Paul and South Bend are made on roofing products. A tabulation comparing cost with list prices and the lowest actual prices found in August invoices is also attached to the merchandizing section.

CS003 0038

C O S T S

SEVEN MONTHS ACC.1933

PAPER/PER TON	Matl. Incl. Shrink.	Labor	Plant Oper.	Plant. Main.	Total Conv.	Total Cost	Est. Possible Reduction	Increase under NRA.
All roofing felt except #73 and over	18.50	4.42	7.74	.81	12.97	31.47	2.00	.95
73# roofing felt	18.80				12.97	31.77		
Wool felt for pipe covering	11.76				12.97	24.73		
Building paper (Chip for saturating)	16.80				12.97	29.77		
Red Rosin building paper	15.50				12.97	28.47		
5.3# sponge felt	30.80				12.97	43.77		
5# Asbestos	19.25				12.97	32.22		
6.5# "	18.75				12.97	31.72		
7.5# "	20.55				12.97	33.52		
10# and 14#	21.00				12.97	33.97		
Asbestos for resale- various weights	34.60				12.97	47.57		
Colorbestos wrapping	31.20				12.97	44.17		
6# School specification asbestos	23.00				12.97	35.97		
9# and 20# Govt.spec.) asbestos-33# asbestos) for saturating)	35.65				12.97	48.62		

ROOFING/PER ROLL SQUARE

Cost per roll square for manufacturing and loading		.096	.114	.080	.29		.12	.03

SHINGLES/SALES SQUARE

	Matl. Inc. Waste	Mfg. and Load'g.	Boards and Wires	Packing Labor	Royalty	Total Cost	MoH-M Cost	Site Cost
10" Sq. Butt	1.497	.725	.080	.035		2.337	2.21	1.89(
12½ " "	1.846	.870	.141	.045		2.902	2.79	2.54(
11-3/8 Hexagon	1.178	.580	.088	.035	.075	1.956	1.73	1.89)
14½" Std. hex.	1.254	.725	.141	.045	.075	2.240	2.34	2.40(
12½" giant hex.	1.672	.725	.141	.045	.075	2.658	2.44	
12½" massive hex.	1.568	.725	.141	.045	.075	2.554		
10" cut corner	1.562	.725	.050	.035		2.402		
Brick siding	1.574	.725	.092	.053	.15	2.594		
Ma bricks	1.326	.725	.092	.053	.15	2.346		
Re-roofers	1.008	.464	.126	.035		1.633	1.420	(arrolc
Sta-fast	1.177	.464	.126	.035		1.802	1.677	" "
9x12½ Individual	1.792	.87	.098	.080		2.840		
12x16 "	2.417	.87	.088	.070		3.445		
12" square butt giant	1.929	.725	.140	.045		2.839		
12" " " massive	1.813	.725	.140	.045		2.723		
Part dubl. butt	1.827	.798	.250	.060		2.935		
Full " "	2.340	1.088	.253	.060	.12	3.835		

CS003 0039

C O S T S

SEVEN MONTHS ACC. 1933

ROLL ROOFING/ROLL	Matl. Inc. Waste	Mfg. and Loading	Paper and Pkt.	Pack. Labor	Total Conv.	Total Cost	MeH-M Cost	Site Cost
75# Slate roll	.566	.29	.055	.015	.36	$ .926	.86	.824
85# " "	.661				.36	1.021	1.00	.986(87
1 ply Manco	.251	.29	.055	.011	.356	.607	.451	.518
2 " "	.311				.356	.667	.568	.615
3 " "	.395				.356	.751	.680	.727
2 " Matasco	.392				.356	.748	.688	.651
3 " "	.475				.356	.829	.791	.745
4 " "	.555				.356	.911	.902	.944

SATURATED FELTS AND BUILDING PAPER						Pay-roll	Per Ton
No.12 432 sq.ft.-52#	.53	.103	.005	.011	.119	.649	$25.00
" 15 432 " 64#	.65				.119	.769	24.00
" 24 216 " " 52#	.53				.119	.649	25.00
" 30 216 " " 64#	.65				.119		24.00
No.25 Slaters-500 sq.ft. 25#	.276				.119	.395	-
No. 30 " -500 " " 30#	.330				.119	.449	
Red Rosin Bldg.Paper (Est.)							
20#	.285	.060	.005	.011	.066	.351	$35.10
25#	.355				.066	.421	33.60
30#	.427				.066	.493	32.90
35#	.498				.066	.564	32.20

PIPE COVERING

	Matl. Incl. Waste	Conv.	Bands	Container	Total Cost Per Sect.	Per Foot
1½" Air cell 2 ply	.034	.049	.002	.0063	.0913	$ .030
3 "	.047	.049	.002	.0095	.1075	.036
4"	.060	.049	.002	.0126	.1236	.041
1½" Colorbestos	.038	.067	.002	.0095	.1155	.039
2" Wool felt-1/2"thick	.051	.050	.002	.0063	.1093	.036
3/4" "	.068	.050	.002	.0095	.1295	.043
1 " "	.096	.050	.002	.0126	.1606	.054
2" Pyrobestos 1½" thick	.250	.950	-	.015	1.215	.40

AIR CELL BOARD

1" thick	.104	.110	-	.010	.224	.025 sq.ft.

ASBESTOS CEMENTS PER 100# SACK				PER SACK
#1	1.181	.128	-	1.309
#2	.882	.128		1.010
#3	.751	.128		.879
Black furnace cement	1.28	.128		1.408
#5 (purchased)	.86			

CS003 0040

C O S T S

SEVEN MONTHS ACC. 1933

	Matl.	Conv.	Total Cost Per Cwt.	Size Pkg.	Matl. and Conv.	Can	Box	TOTAL COST Per can	Per lb.
Black Fiber Plastic/cwt.	.69	.136	.826	1#	.008	.031	.003	.042	-
				5#	.041	.074	.013	.128	-
				10#	.083	.089	.029	.201	-
				25#	.207	.26	-	.467	.01
				50#	.413	.30	-	.713	.01
				100#	.826	.695	-	1.521	.01
	Butter Tubs			65#	.537	.20	-	.727	-
Maroon Fiber Plastic/cwt.	.91	.136	1.046)						
Red Fiber Plastic/cwt.	1.60	.136	1.736)	package costs as above					
Green Plastic /cwt.	2.98	.136	3.116)						

							Per Can	Per Gal.
Black Coating/gal.	.059	.013	.072	½ gal.	.036	.074	.013 .123	-
				1 gal.	.072	.089	.029 .180	-
				2½ gal.	.180	.260	- .440	.176
				5 gal.	.360	.300	- .66	.132
				30 gal.	2.160	1.25	- 3.41	.114
Maroon Coating /gal.	.088	.013	.101)					
Red " /gal.	.161	.013	.174)	package costs as above				
Green " /gal.	.319	.013	.332)					
Plaster Bobd /gal.	.060	.013	.073)					
Asphalt Paint /gal.	.076	.013	.089)					
Plastic Slate/100#	.593	.136	.729	65# tub	.527	.20	- .727	-

CS003 0041

NATIONAL ASBESTOS MFG. CO.

PURCHASE AGREEMENTS

Warner-Quinlan Company, 2 Park Avenue, New York City.

Dated - 12-23-32
Materials - Montezuma Flux Oil 105/110° M.P.
Quantity - Purchasers requirements
Price - $.045 per gallon in tank cars F.O.B. Warners, N.J.
Terms - 1% 10 days - net 30 days
Shipments - as required
Period - January 1, 1933 to December 31, 1933
Assignability - "This contract is not assignable by the purchaser except by consent in writing of the seller, or by operation of law."

Dated - 12-24-32
Materials - Asphalt Cutbacks B 116 and L.K.
Quantity - Purchasers requirements
Price - B 116 $.0725 per gallon in tank cars - National Special L.K. $.06 per gallon in tank cars F.O.B. Warners, N.J.
Terms - 1% 10 days - net 30 days
Period - January 1, 1933 to December 31, 1933
Assignability - "This contract is not assignable by the Purchaser except with the written consent of the seller."
(National is not now buying L.K. drawing same from their own stills).

Currier and Campbell, 1700 Walnut Street, Philadelphia

Letter dated - 3-30-33
Materials - Banner Nut and Block Stoker Coal
Quantity - Up to 8,400 net tons
Period - April 1, 1933 to March 31, 1934
Price - $1.30 per net ton, F.O.B. cars at mines, less 6¢ per net ton discount for payment on or before 15th of month following month in which coal is shipped. This price "based on the present rate paid for mining".
(Due to increase in wages, price of $1.30 has been raised to $1.40).

No mention of assignability.

C5003 0042

PURCHASE AGREEMENTS

Wilson & Bennett Mfg. Co., 6532 S. Menard Avenue, Chicago, Ill.
Dated - 6-23-33
Period - June 23, 1933 - December 31, 1933.
Based on 24 gauge hot rolled annealed steel sheets at $2.10 per 100 pounds F.O.B. Gary
Requirements - est. 3 C. L. mixed

DESCRIPTION	DIFFERENTIAL	PRICE
2½ gallon, Our No. 8 pail, 8½" lug type cover, 26 gauge steel, painted black	$ .80	$25.95 per C
5 gallon, Our No. 8 pail, 11½" lug type cover, 24 gauge steel, painted black	.60	29.80 per C
10 gallon, Our No. 8 pail, 12-3/8" lug type cover, 22 gauge steel, painted black	1.15	60.10 per C

Prices F.O.B. factory at Chicago with present rate of freight allowed to Jersey City plant in carload lots.

If pails are picked up F.O.B. Jersey City warehouse, add $1.00 per C to the above price of the 2½ and 5 gallon and $4.00 per C to the price of 10 gallon.

Assignability - Not assignable by buyer except with written consent of seller.

Tapioca Flour -

Purchase orders placed with Amer. Cyanamid
4 Carloads ordered for delivery about 9-1 - 10-15 - 12-1 - Shipt. 12-31
Price - $2.24 cwt. delvd. at plant.

C5003 0043

PURCHASE AGREEMENTS

Lockport Chemical Company, Inc., 414 Frick Building, Pittsburgh.
- Dated - 12-31-30
- Quantity - All the Silicate of Soda that will be used in Buyers plant - approximately 2,000,00 pounds per year.
- Period - January 1, 1931 to December 31, 1935.
- Grade - 40½° Beaume Sodium Silicate
- Price - 55¢ per 100 pounds
- Delivery - F.O.B. Seller's plant, Jersey City, N.J., freight equalized with the rate from Rahway, N.J.
- Terms - 1% - 10 days from date of each shipment - Drums 30 days net.

Notation giving protection against lower prices.
No mention of assignability.

Wilkes-Barre Can Company, Wilkes-Barre, Pennsylvania.
- Dated - 6-28-33
- Period - June 28, 1933 to December 31, 1933 - Carload lots
- Price - is F.O.B. Wilkes-Barre, Pennsylvania, earlst freight allowed Jersey City - is based on tinplate at $4.25 per base box of 14x20, 112 sheets, for period 7-1-33 to 10-1-33.
- Terms - 1% 10 days - net 30
- Assignability - "It is agreed that this contract cannot be assigned or transferred by second party without first obtaining the consent of the first party thereto in writing".
- Quantity - 2 to 3 carloads
- Description - One gallon double friction paint pails size 6½" diam. x 7¾" high, body lithographed two colors, bail handles, manufactured of 100# coke, tinplate, side seams soldered, ends compound lined, packed in carbags - price $94.00 M - Differential $1.18 M.

  One-half gallon double friction paint pails size 5½" diam. x 5-7/8" high, body lithographed two colors, bail handles, manufactured of 100# coke, tinplate, side seams soldered, ends compound lined packed in carbags - price $65.82 M - differential $.76 M. Same container, plain throughout - $61.10 M.

CS003 0044