

ZONOLITE
CONSTRUCTION PRODUCTS DIVISION



TO J. W. Wolter

DATE January 16, 1976

FROM Libby Pollution Control
Group

SUBJECT Request #2 - J. W. Wolter's
Questions - H. A. Brown's
Letter of January 12, 1976

CC:

In response to the questions #2, "identify capital cost, non-standard expense, and additional operating expense to reduce to a minimum fiber count level with existing technology available", we have identified 16 different areas, with concepts and costs associated with these fixes. As per our telephone conversation of 1/15/76, we have decided to delete non-standard expenses because they are unknown at this time. Dollars for the fixes are categorized as capital and additional operating expenses only. Additional operating expenses shown, by category, do not include additional man power. That will be shown at the conclusion of this exercise as a total man power requirement. The reason for this; each item took partial people and it made better sense to show them as a lump sum.

Libby Pollution Control Group/rit

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PROBLEM BY PRIORITY
1/16/76

<u>Problem</u>	<u>Capital</u>	<u>Additional Operating Expense</u>
1. Dryer Improvements	\$ 55,000	\$ -0-
a. Improve structural integrity of the Baghouse		
b. Redesign door seals on the Baghouse		
c. Redesign hold down mechanisms on the bags		
d. Cover the pickup points on all conveyors		
e. Seal all screw conveyors		
f. Move sampler and weightometer and provide housing for both		
g. Install electrostatic separator on stack	120,000	10,000
Note: This fix does not include discharge of product belt at the top of the skip holst.		
2. Inventory Storage	2,000,000	50,000/yr.
a. Provide rubber curtains in front of all open storage including the six production bins		
b. Provide Baghouse pickup for open storage, production bins, top and bottom of silo storage and all tunnel areas		
Alternative to this fix would be a new storage facility utilizing totally enclosed bins that would reduce the man power required by two heads. The cost of this new facility would be approximately 2½ million dollars. This concept would also reduce operating expense by approximately \$50,000 since it would eliminate the use of shuttle trucks and drivers.		
3. Top Floor of Mill	190,000	20,000
a. Small Baghouse on top of the conveyor discharge point		
b. Replace HI-Prob Screens		
c. Covers for Derrick Screens		

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Problem

4. Service Areas

- a. Pollution control with air-conditioning would be installed for the garage, warehouse, machine shop facility, sheet metal shop, engineering office, research and development and to pave and install proper drainage for the entire area

An alternative to pollution control on existing service facilities would be the installation of a new large facility that would be easier to control from a pollution standpoint as well as improve overall efficiency of the service shops. The cost for this alternative would be \$1,750,000.

This would reduce the operating expense from the projected \$125,000/yr. to approximately \$75,000/yr.

5. Skip Transfer Point and Bins

- a. Skip control room with filtered air conditioning for the operator and cover skip production bins with Baghouse pickups at Transfer Points into and out of the bins.

6. Lower Ore Bins

- a. Replace the top of the existing bins to confine dust
- b. Install Baghouse pickup at the dump point of the skip into the bins and the loading point from the bins into the haul trucks

An alternative to this problem would be the replacement of the lower ore bins with one large bin that would be easier to control. Cost Unknown

7. Mine Transfer Point

- a. Provide air condition filter system for the control room
- b. A Baghouse collector for all belt and screen transfer points as well as the grizzly area

<u>Capital</u>	<u>Additional Operating Expense</u>
\$1,070,000	\$125,000/yr.

170,000 10,000

100,000 9,000

100,000 9,000

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<u>Problem</u>	<u>Capital</u>	<u>Additional Operating Expense</u>
8. Mobile Equipment	\$100,000	\$50,000
a. Provide filter air conditioning for all mobile equipment including pickups and service trucks		
9. Dust Suppression for all Pit Haul and Access Roads	200,000	545,000
a. Three tank trucks to spread suppressants		
b. Supply mixing, hauling and loading suppressants		
10. OS&B	50,000	10,000
a. Water supply or suppressant to dampen piles during maintenance and repair periods only		
11. Concentrate Loading Bulk Hopper Cars	100,000	12,000
a. Provide filtered air conditioned control room for operator		
b. Car air-lock for loading and car cleaning area		
12. Concentrate Truck Transport	75,000	5,000
a. Provide box covers for the three Kenworth trucks, screen plant shuttle truck and bagging facility transport truck		
13. Bagging Facility	150,000	17,000
a. Provide automatic palletizing equipment to shield employees from the bag filling and loading operation		
Alternate to the fix on the bagging facility is to discontinue bagging of vermiculite concentrate		
14. Bottom Floor of the Screening Plant	50,000	5,000
a. Provide air conditioned control room for operator		
b. Increase the number of pickup points on conveyor belts into the present dust collection system		
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Problem	Capital	Additional Operating Expense
15. Tails Disposal Area	\$ 100,000	\$400,000
a. Filtered air conditioning system for the tails skid operator		
b. Vegetate mill tails disposal area		
c. Vegetate mine tails disposal areas		
16. Clean Road Sand	-0-	60,000
a. Presently using fine mine waste and mill tailings as sand for winter operation		
Alternative would be to purchase clean road sand or set up a wash operation.		
TOTALS	\$4,630,000	\$1,337,000
GENERAL COMMENTS:		
1. Man Power		\$ 340,000
a. The above fix as outlined would require an additional 17 full time wage employees to operate and maintain the proposed fixes. The cost of these 17 people is approximately \$340,000/yr. These dollars are not included in the above expense dollars shown.		
b. If we should install the above proposed fixes, we would exceed the power supply and power distribution capacity presently at the mill facility. The capital to provide power for this additional equipment is \$100,000	100,000	
GRAND TOTAL	\$4,730,000	\$1,677,000
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ZONOLITE
CONSTRUCTION PRODUCTS DIVISION

TO J. W. Wolter

DATE 1/16/76

FROM The Libby Pollution Group

SUBJECT Item No. 3 H. A. Brown's memo of
January 12, 1976

CC:

Question number three of the memo asked us to identify the additional operating costs incurred to meet the monitoring, control requirements, and facilities outlined in Kostics memo of December 15th, 1975.

At present we are meeting the required MESA regulations on dust monitoring, record keeping and employee facilities. The question that we will attempt to answer here is what capital and expensed dollars will be incurred to meet the existing OSHA standards as well as additional costs to meet the proposed new OSHA standards.

Existing standards if enforced by MESA.

Manpower

Minimum manpower requirements would mean the addition of an environmental engineer, a safety engineer and one clerical type.

Capital Costs

To meet the present OSHA standards a minimum of four shower facilities would be required. One in the general mine area, one in the mill and service areas, one at the screen plant facility and one at the bagging facility. The cost of these change room shower facilities would be in the neighborhood of \$ 400,000. We could look at an alternate plan of providing one shower room facility for the entire operation which would then reduce the capital cost, but would include transportation from all operating sites to the main facility. There would be a cost offset then for transportation verses separate facilities.

Operating Costs

To provide medical surveillance and protective clothing as outlined under the present OSHA standards, additional operating costs would be in the order of magnitude of \$ 350,000 per year.

To meet the new OSHA standards would require the following:

Manpower

It is estimated that an additional laboratory and clerical staff of six additional heads would be needed. Three clerical, two for the laboratory and one engineering helper for a cost of \$ 150,000 per year. In addition, a minimum of one wage person would be included to take care of waste disposal of hazardous materials.

Capital

It is estimated that capital expenditures of \$ 180,000 would be required for equipment, office space, and transportation for the disposal of waste materials and for the transportation of the staff to perform their duties.

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