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August 20, 1976

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Wetted Supervisibestos

New
E-6
Drilling
Mud

The attached design memo by Mr. J.J. Militello presents the preliminary engineering study you requested for the production of Wetted Supervisibestos.

The product specifications have not been defined. Also, the location of all of the equipment was not completely resolved.

The order of magnitude capital cost estimate is \$255,000 for a facility handling 4 dry tons per hour or 5 tons per hour with 20 percent moisture.

T.J. Kagetsu

T.J. Kagetsu

TJK/rb
Attach.

Union Carbide Corporation
Metals Division
Technology Department-Engineering
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File 11096

DESIGN MEMORANDUM

PROJECT: WETTED SUPERVISBESTOS - KING CITY, CALIFORNIA

BY: J.J. Militello
DATE: August 13, 1976

DESIGN MEMO NO. 1
Revision 0
Subject: Flowsheet, Equipment List
and Cost Estimate

1.0 SCOPE

This memo gives the preliminary flowsheet, equipment list and order of magnitude cost estimates concerning the proposed Supervisbestos circuit at the King City plant.

2.0 DESIGN CRITERIA

The wetted Supervisbestos circuit is based on the following:

Production Rate - 4.0 dry tons/hour
Maximum Moisture - 25% (wet basis)*

3.0 PROCESS DESCRIPTION

The flowsheet is shown in Figure 1.

Dry Supervisbestos is fed to a pug mill where it is mixed with water (to bring water content to 20-25%). The material is then transferred to a pellet mill where the material is extruded into pellets, the size of which is yet to be determined. Finally, the dustless material is bagged and sealed by sewing.

4.0 EQUIPMENT LIST

See Table I

5.0 EQUIPMENT LOCATION

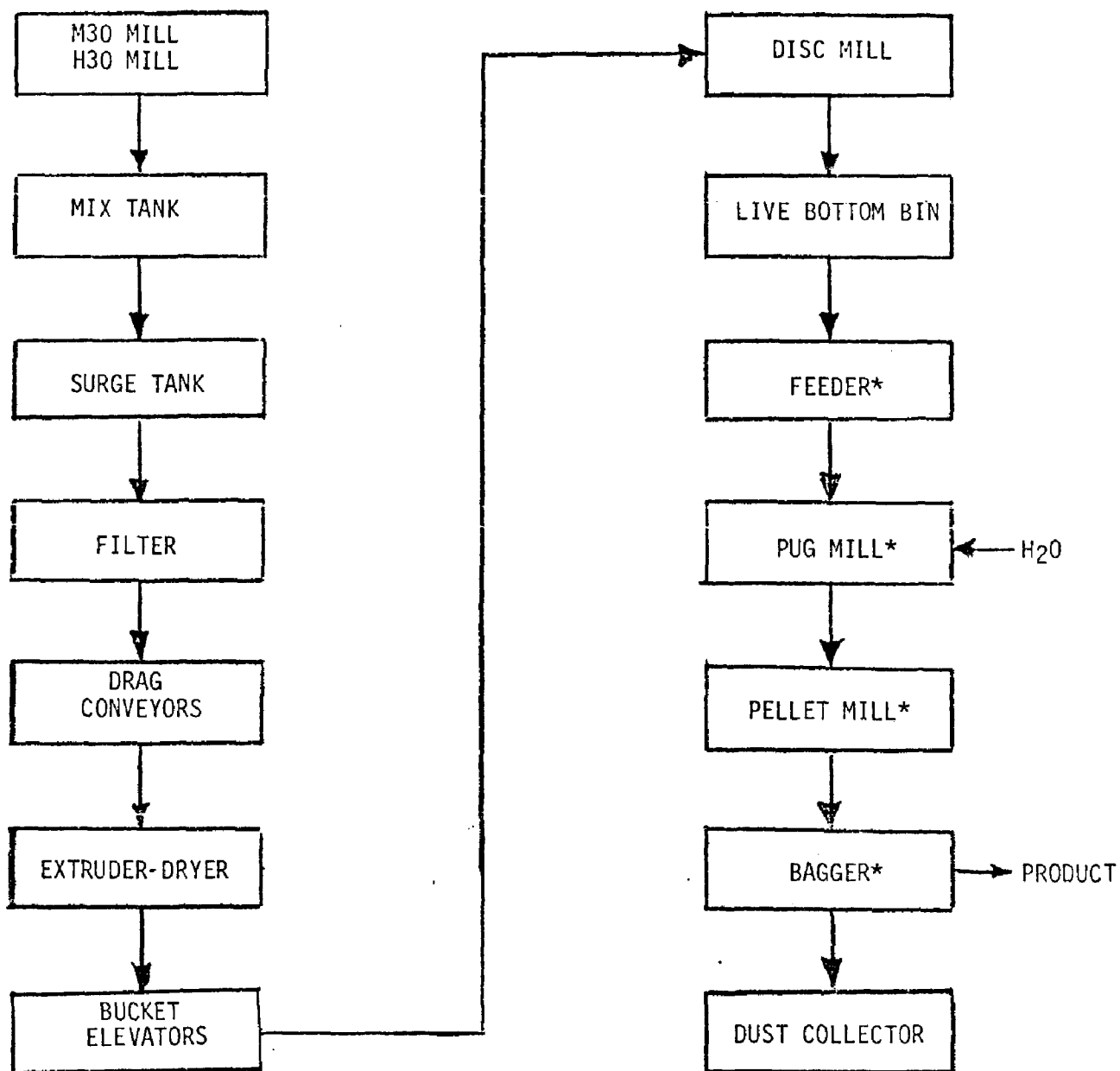
A pug mill and pellet mill were tentatively located above the existing bagging line. The plant has not been able to find a location for the new bagging system which seals the bags by sewing. Thus, this preliminary study is not based on an intergrated layout.

*Preliminary - Additional tests required

6.0 COST ESTIMATE

The cost estimate given in Table II was prepared by Mr. F.R. Angelori.
The order of magnitude cost estimate for a Wetted Supervisbestos
circuit is \$255,000.

PRELIMINARY WETTED SUPERVISBESTOS FLOWSHEET



*NEW EQUIPMENT

TABLE I

EQUIPMENT LIST

<u>EQUIP. NO.</u>	<u>EQUIPMENT</u>	<u>QUANTITY</u>	<u>NOMINAL CAPACITY</u>	<u>SIZE</u>	<u>MTL CONSTR</u>	<u>CONN UNIT</u>	<u>HP TOTAL</u>
1	H30 Mill*						
2	M30 Mill*						
3	Mix Tank*						
4	Surge Tank*						
5	Filter*						
6	Drag Conveyors*						
7	Extruder-Dryer*						
8	Bucket Elevators*						
9	Disc Mill*						
10	Live Bottom Bin*						
11	Feeder	1	5 tph	18"x48"	Steel	3/4	3/4
12	Pug Mill	1	5 tph	6.3'x6.4'x4'	Steel	20	20
13	Pellet Mill	1	5 tph	7'x3.5'	Steel	25	25
14	Bagger	1	5 tph		Steel	1/3	1/3
15	Closing Machine	1	5 tph	12"x25'	Steel	1/3	1/3
16	Conveyor	3	5 tph		Steel	1	3
17	Dust Collector*						

*Existing equipment

TABLE II

ORDER OF MAGNITUDE COST ESTIMATE
WETTED SUPERVISBESTOS CIRCUIT
(PROJECT COMPLETION 1977)

Installed Equipment

Equipment	\$88,000
Installation	30,000
Power wiring	20,000
Piping	10,000
Other	<u>27,000</u>
Subtotal Installed Equipment	\$175,000

Other Items

Engineering & Construction Supervision	45,000
Contingency	25,000
Start-up Modifications	<u>10,000</u>
Subtotal Other Items	\$80,000
TOTAL CAPITAL COSTS	\$255,000