

## INDUSTRIAL HYGIENE WALK-THROUGH REPORT

PLANT NAME: Milwhite Company Inc.

LOCATION: Bryant, Arkansas

PURPOSE: The National Institute for Occupational Safety and Health (NIOSH) in cooperation with the Mining Enforcement and Safety Administration (MESA) has underway a preliminary study of the talc mining and milling industry. As part of this study, NIOSH is conducting walk-through surveys to compile necessary data in an effort to characterize compositions of talcs in the U.S.

NIOSH PERSONNEL: Paul L. Johnson, Bill Jones

### PLANT HISTORY AND PROCESS:

The Milwhite Company plant, a surface grinding facility located in Bryant, Arkansas, is owned by The Milwhite Co., Inc., P.O. Box 15038, Houston, Texas. The company address in Bryant is The Milwhite Co., Inc., P.O. Box 7, Bryant, Arkansas 72022.

Milling operations in Bryant started in the early 1950's with the grinding of soapstone (an impure massive talcose rock). In 1955 the plant was purchased by The Milwhite Co., Inc.. A mineral lease was executed for mining soapstone and slate from two mines which up to this date are serving the plant. Milling operations were expanded to include slate and barite. All three minerals are similarly processed and ground. Total combined production is estimated at 20,000 tons per year. Finished products are used for asphalt, roofing materials, aggregate in oil well drilling muds, and cement. Eleven workers are employed at this facility during two shifts, five days per week.

Mine run ore is discharged into jaw crusher for primary crushing (2 inches and less in size), stockpiled, then passed through a hammer mill ( $\frac{1}{2}$  inch and less size). Prior to final grinding, the crushed materials are rotary kiln dried at 300 Degrees Fahrenheit. Connected to each rotary kiln is a cyclone separating unit and a Mikro-Pulsaire dust collector which is a continuous self cleaning dust filter containing felted filtering elements capable of retaining particles (even submicron size) while allowing passage for the main air stream through stacks into the atmosphere. The dried ore is then fed to two 5 roller Raymond mills which grind soapstone (45% minus 200 mesh), slate (95% minus 325 mesh), and barite (98% minus 200 mesh). Connected to each Raymond is a cyclone separating unit and a Mikro-Pulsaire dust collector of the same type as previously described. Finished products are both bagged and shipped in bulk by rail and by truck.

The Company does not mine barite in Arkansas. The ore is shipped by rail from Cadet, Missouri. The slate and soapstone mines are located approximately 15 miles NW of Bryant. Ore extractions are by open-pit mining, using bench quarry techniques. Characteristics of the ore permit blasting to be held at a minimum - once every 16-18 months. The ore is loaded onto trucks by front-end loaders and hauled to The Milwhite plant.

#### Mining Operations:

Barite ore is not mined at the Milwhite location but is trucked in ( $\frac{1}{4}$  inch and less size) from Cadet, Missouri. The slate and soapstone mines are located approximately 15 miles northwest of the mill site (Bryant, Arkansas). Ore extractions are by open-pit mining using bench quarry techniques. The ore veins are somewhat soft, therefore blasting is at a minimum - once every 16-18 months. Materials from the veins to be milled are loaded onto trucks by front-end loaders and hauled to the nearby mill.

HEALTH HAZARDS: Include potential dust and noise exposures.

#### PERSONNEL RECORDS:

Personnel records include lost time accident data, Social Security numbers, and work histories. All records from 1955 to present are kept at the Bryant, Arkansas location.

#### RECOMMENDATIONS:

1. Respirators should be worn by all employees in dusty areas and should be NIOSH approved. The Flex- A-Foam dust mask and filter is not adequate for controlling soapstone, barite, or slate dust particles.
2. Noise measurement should be conducted to determine noise exposures.
3. Housekeeping should be improved and maintained. A vacuum type system is recommended where possible, rather than shoveling and dry sweeping.
4. Maintenance programs should be improved. Repairs are needed on the cyclone duct systems and dust collectors.

Work Sheet  
for  
Preliminary Industrial Hygiene  
Survey of

Plant Name: Milwhite Company, Inc.

City, State: Bryant, Arkansas

Survey Date: July 21, 1976

Survey Conducted By: Paul L. Johnson, Bill Jones

Industrial Hygiene Section  
Industrywide Studies Branch  
Division of Surveillance, Hazard Evaluations and Field Studies  
National Institute for Occupational Safety and Health  
Cincinnati, Ohio

I. General:

1. Establishment Name Milwhite Company, Inc.  
Address P.O. Box 7 City Bryant  
State Arkansas Zip Code 72201 Telephone Number 501/847-0937
2. Persons Interviewed Carl Albrecht  
Title: General Manager 501/378-5281  
Others: Robert Hunter - MESA Inspector
3. A) Union Representative: James Warner  
Title Steward Telephone Number \_\_\_\_\_  
B) Name of Union Chauffeurs, Teamsters, Warehouse and Helpers
5. NIOSH Staff Present Paul L. Johnson, Bill Jones

II. Plant Description:

1. Is plant a subsidiary  independently owned \_\_\_\_\_  
Name of parent company The Milwhite Co., Inc., P.O.Box 15038, Houston,  
Texas 77020  
Legal Owner \_\_\_\_\_
2. Date plant built Purchased 1955  
Date of plant additions 1960
3. Acreage of plant site 9 Acres
4. Number of major buildings 2 Total Square Feet 225 sq. ft
5. A) How many people are on your payroll at the present time? 11  
B) Of this number, how many are normally in the  
Production Area? 9  
Administrative Area? 2  
Other Areas? 0

6. Number of Shifts two 8 hour shifts, 5 days/week

7. Number of employees/shifts? 7/4

III. Description of Process:

1. What are your major products or services? (list)

Barite (Barite Muds) BaSO<sub>4</sub>

Slate \_\_\_\_\_

Soapstones \_\_\_\_\_

\_\_\_\_\_

2. Plant Processes

A) Product Barite, Soapstones and slate

Raw materials and possible contaminants

Calcite, Dolomite, Quartz - Hand sorted

\_\_\_\_\_

\_\_\_\_\_

Production Processes SEE ATTACHED PAGE

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

B) Product Mining Operation - Soapstone and slate

Raw materials and possible contaminants

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\_\_\_\_\_

\_\_\_\_\_

### Mill Operations

Barite ore, hauled from Cadet, Missouri, is fed directly into a secondary crusher where it is broken down to 1/4 inch and less in size. From there the ore is conveyed to a 5 roller Raymond Mill where it is further ground (98% minus 200 mesh to 88% minus 325 mesh). Attached to the Raymond is a cyclone separation unit vented through a baghouse collector. This unit separates the "fines" for bagging and returns the coarse materials for processing. Finished products are shipped in 100 lb. bags and bulk quantities by both truck and rail. Product shipments are made to Crowley, Louisiana (aggregate for barite packing muds) and to Benton and Little Rock, Arkansas (aggregates for cement).

Soapstone and slate are both processed similarly to the barite ore. Both minerals are primary crushed by a Jaw crusher (1/4 to 1/16 inch size), secondary crushed (hammer mill 1/4 and less in size), fed into rotating kilns to be dried (300<sup>o</sup>F), and then conveyed to two 5 roller Raymond mills for final crushing. Connected to each Raymond is an air classifier, a cyclone separating unit and a baghouse dust collector. Finished products from both mills are separated for bulk shipments and/or bagging. Product shipments are made by both rail and truck. Soapstone is shipped to Tamko Asphalt in Joplin, Missouri and to Elk Roofing in Stephens, Arkansas. The slate is used as an asphalt filler by Ralaphin Tar and Chemical in Lonestar, Texas and Granite City, Illinois.

### Mining Operations

The company owned slate (1960) and soapstone (1955) mines, presently serving the Milwhite Talc Co., are located approximately 15 miles northwest of Bryant, Arkansas. Ore extractions employ open-pit mining using bench quarry techniques. Since the veins are somewhat soft blasting is minimal-once every 16-18 months. Materials from the veins to be milled are trucked (18 to 20 tons per day) to the near-by mill. Finished products after milling consist of 10 to 14 tons per day.

Production Processes \_\_\_\_\_

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IV. Description of Safety, Industrial Hygiene, and Medical Programs:

1. A) Does your company employ an industrial hygienist?

Yes, at this location \_\_\_\_\_

Yes, at corporate headquarters \_\_\_\_\_

Yes, on a consulting basis \_\_\_\_\_

Yes, insurance carrier \_\_\_\_\_

Yes, specify \_\_\_\_\_

No  X

B) Name of I.H. \_\_\_\_\_ Telephone Number \_\_\_\_\_

Address \_\_\_\_\_

C) What types of measurements are routinely taken? Explain.

NA \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

D) Were industrial hygiene measurements obtained: Yes \_\_\_\_\_ No  X

2. Do you have an agreement with a physician to give your employees emergency or other medical care?

Yes, at this location--full-time \_\_\_\_\_

Yes, at this location--part-time \_\_\_\_\_

Yes, on call X

Name Dr. Ralph S. Izard Telephone Number 501/847-0289

Address Saline County Memorial Hospital, Benton, Arkansas

No \_\_\_\_\_

3. Do you have a licensed nurse in your facility at a regular time?

Yes, Full-time \_\_\_\_\_ Yes, Part-time \_\_\_\_\_ No X

4. Do you have an employee at this facility on each shift with formal first aid training, other than a doctor or nurse, who has been designated to provide emergency treatment?

Yes X No \_\_\_\_\_

5. When you hire new employees, do you require them to take a medical examination?

Yes, all employees X

Yes, some employees \_\_\_\_\_

No \_\_\_\_\_

6. Do you provide any periodic physical examinations for your employees?

Yes \_\_\_\_\_ No X How Often \_\_\_\_\_

7. Do you provide special job related medical tests for your employees, such as:

Chest X-Ray Yes \_\_\_\_\_ No X

Hearing Tests Yes \_\_\_\_\_ No X

Visual Tests Yes \_\_\_\_\_ No X

Lung Function Tests Yes \_\_\_\_\_ No X

Blood Tests Yes \_\_\_\_\_ No X

Urine Tests Yes \_\_\_\_\_ No X

Other Yes \_\_\_\_\_ No X

Specify: Complete physical exam given before hiring

8. A) Does your company have a formal safety program? Yes x No \_\_\_\_\_

B) Safety and Health Supervisor Carl Albrecht



V. Narrative:

1. Description of Medical, Safety, and Industrial Hygiene Program:

No medical or industrial hygiene programs were in force at time  
of survey.

Safety programs consist of semi-annual meetings which include instruction  
concerning equipment use and compliance, fire, mine and job safety, and  
some emergency care.

2. Potential Health Hazards:

Dust and noise exposures from processing equipment.

3. Have product lines changed over the years? (If they have, include any other raw materials used).

NA

4. Are waste products reused: (If not, how are they disposed?)

All waste products are reused.

5. Briefly describe any past air sampling data.

Stack samples -- Arkansas Pollution Control Board - (Little Rock)  
annually.

6. Completeness of Personnel Records:

Social Security Numbers Yes

Work History Yes

Lost Time Accident Data Yes

Records Available Since 1955. All employees other than two are still working at the present location.

7. Ventilation: (Include type, size, kinds of collectors, H.P. of blowers, history of changes, etc.)

Mechanical ventilation was not present at this facility other than those systems connected directly to the bagging bins which are used for reprocessing.

8. Housekeeping:

Somewhat dusty and in need of cleaning.

9. Miscellaneous: