

INTRACOMPANY CORRESPONDENCE

R-93 (Rev. 1-68)

PLAINTIFF'S
EXHIBIT

RMC-348

FROM	W. E. Porter - GOB
TO	Emmet Thompson - Tilo
COPIES	Phil Piccioli, Bob Whelan - Tilo; W. B. Moore, R. B. Newman, Dr. J. M. MacMillan, E. C. Irby - EXO; J. E. Nichols - GOB
DATE & SUBJECT	October 29, 1971 INDUSTRIAL HYGIENE SURVEY AT TILO PLANT

At the request of Bob Whelan, W. E. Porter visited the Tilo Plant on October 18 and 19, 1971 for the purpose of surveying and evaluating the in-plant environmental conditions. Studies included determinations of dust and/or total particulate concentration in workroom air, noise level measurements, and workplace lighting measurements. All results and measurements are included in the attached tables.

Dust and particulate concentrations were determined by gravimetric analysis. Ten-minute samples were collected on Gelman Type A glass fiber filters, using a high volume sampler to draw air through at a metered flow rate. Three of the four samples collected were well below the OSHA Threshold Limit Value of 15 milligrams per cubic meter of air (mg/m^3) for nuisance or inert dusts or particulates. The sample taken in the cooling drum area of the asphalt department showed a total particulate concentration of $10.05 \text{ mg}/\text{m}^3$, which exceeds the Threshold Limit Value of $6 \text{ mg}/\text{m}^3$ (equivalent to 20 million particles per cubic foot) for mica dust. Since this analytical method measures total particulates, this value of $10.05 \text{ mg}/\text{m}^3$ would also include the limestone filler, oil mist and any other particles present in the air in addition to mica dust. Therefore, the actual weight of the mica dust might possibly comprise less than $6 \text{ mg}/\text{m}^3$ of the total. It should also be pointed out that the dust condition existing at the time the sample was taken probably represents the extreme and not the typical situation, since the dust collecting system was operating at less than maximum effectiveness due to holes in bags. It is recommended that approved dust respirators be worn by workers in this area until the excessively dusty condition has been corrected.

Only one area was identified where a serious problem due to excessive noise exposure is felt to exist. This is in the vicinity of the vact pump on the second floor of the felt mill. Here noise level of 100.5 dBA was measured. At this level, OSHA standards permit a maximum exposure duration of less than two hours per eight-hour shift for a worker not wearing approved hearing protection devices. It may be possible to reduce this level to some extent by employing one or a combination of several methods of attenuation. Further investigation including an octave band analysis, will be necessary if serious consideration is given to such a project. In the meantime, any workers who spend more than two hours per shift in this vicinity should be supplied with approved ear protectors of either the muff or insert design and should be informed of their obligation under provisions of the Occupational Safety and Health Act of 1970, to wear these. Other

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areas where levels greater than 90 dBA were measured are considered to be in compliance because of worker exposure durations that are less than the maximum permissible.

In general, lighting in most areas of the plant is considered adequate, especially office space. There are several areas, however, in the felt mill, asphalt department, aluminum department, and warehouse storage areas where levels of illumination measured five foot-candles or less. Some of these areas may require additional illumination. All measurements were taken during daylight hours on a clear sunny day. Bob Whelan plans additional measurements during night shifts.

With the exception of the two conditions discussed above, it is felt that under conditions prevailing at the time of the study, no hazards to the health of workers exist.

W. E. Porter

Walter E. Porter

WEP:slc
Attachments

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TABLE I
PARTICULATE CONCENTRATION IN WORKROOM AIR AT TILO PLANT
October 19, 1971

<u>Sample No.</u>	<u>Description</u>	<u>Mg/m³</u>
1	8 cubic meters in cooling drum area - Asphalt Department	10.05
2	6.4 cubic meters in front of saturating tank - Asphalt Department	3.22
3	6.65 cubic meters at slate bin - Asphalt Department	13.02
4	7.8 cubic meters of wood chipper	3.73

(All samples taken at breathing level)

TABLE II
NOISE LEVEL MEASUREMENTS AT TILO PLANT
October 19, 1971

<u>Location</u>	<u>dBC*</u>	<u>dBA</u>	<u>Maximum Permiss Exposure Durati</u>
Felt Mill Winder	98	96**	4+
Asphalt Department - coater man's area	92	86**	8+
Defibrator room (wood chipper running)	110	96	3.5
Outside - near truck being unloaded	96	88	8+
Aluminum Department			
Packing area (running emboss)	92	88	8+
Lead man's desk (running smooth)	89.5	86	8+
Packing area (running smooth)	86	83	8+
Felt Mill - vacuum pump, second floor - plug-forming screw	113.5	100.5	1.9
Asphalt cutter	97	90	8
Boiler room - desk	102.5	89.5	8+

* C weighting network readings included only as indication
of frequency character of noise

** Peak - brief period

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TABLE III
ILLUMINATION MEASUREMENTS AT TILO PLANT
October 19, 1971

<u>Location</u>	<u>Illumination (foot-cand)</u>
General aluminum department	
Embossing roll	200
Cutter	300
Take-off belt	300
Packing	130
Inspection	75
Scale	25
Bailer	5
Al. storage area	5
Office areas	
Accounting	100
Accounts receivable	160
Payroll	60
AAA	110
Felt mill	
Second floor	5
Pulper area	5
Vat end - pulp mill	50
Head end - dryer	25
Take-up reel	40
Rewinder platform	60
Scale	30
Asphalt department	
Paper storage area	5
Feed end	10
Splice iron	25
Sat. tank area	5
General	5
Take-up end	40
Palletizing	25
General warehouse (between shipping & asphalt)	
Office end - aisle	15
Center	15
Asphalt warehouse - along driveway	10
Al. trim warehouse	5