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GUIDELINES FOR THE PREVENTION OF HEALTH HAZARDS FROM DUST IN ASBESTOS
MANUFACTURING PLANTS. Effective as of 1 August 1940. (See Bulletin for
Labor Practices in the Reich No. 29/1940, III 263.).

Areas of Concern

Paragraph 1

The guidelines apply to working conditions and equipments in all plants where asbestos dust can affect the health of the insured worker.

A. General Precautionary Measures

Paragraph 2

(1) Effective vacuuming systems must be maintained in all areas where working conditions result in substantial dust formation. The dust contaminated air must be removed and replaced with fresh air which should be pre-warmed, if necessary, in cold weather conditions. The pumped-out air must not be re-introduced into the working areas.

(2) Measuring instruments on the pipelines of the vacuuming system must be continuously checked for the appropriate pressures. The main

within the shortest time limit.

Paragraph 5

Particular care must be taken with the crude, and already opened and prepared asbestos to be used for later processing. It must be stored in dust-tight, separate rooms away from the working areas.

Paragraph 6

Dust-producing activities, such as in mixing, in stuffing mattresses, cleaning dust-filled rooms and the asbestos bunker, the stuffing of bags, the repairing and cleaning of machines, vacuuming systems, bunkers, etc. require the use of appropriate protective equipment against dust. After their use, the anti-dust equipment must be stored in dust-tight, closed-off rooms or in dust-tight, closed containers.

B. Specific Precautions for Handling Machines and Other Equipments

Paragraph 7

The crushing rollers must be vacuumed; in asbestos-cement factories they must be, moreover, encased.

Paragraph 8

¹Renderers used to break up the asbestos and asbestos scraps or to pre-render the asbestos must be encased and fitted with a vacuuming device; encasing is superfluous if the construction is dust-tight. The loading and unloading points must each be separately attached to the vacuuming system.

Paragraph 9

The unloading areas of the carder-combs and openers must be encased and vacuumed. The opened asbestos must not remain on the floor but, must be expedited immediately into transportable containers that must attach, air-tight, to the mincing-machine of the carder-comb or the dis-

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tributing area of the opener, and must be located in closely annexing chambers. The chambers must be annexed to the Vacuum-pump.

Paragraph 10

(1) The carder-combs must have their own vacuum-system at points where dust is being dispersed. The feeding loader must have a tightly fitting lid and must be attached to the dust-removing unit, the conveyer table must be uncovered and vacuumed on the side where the scale is located. This must be followed immediately by uncovering the drum of the carder-comb and, if at all possible, the simultaneous vacuuming of the upper choppers. Both choppers must be fitted with a vacuuming device at their receiving points. Vacuuming devices must also be attached at points where scrap material is discharged, underneath the pre-carder-comb and underneath the receiver. In cases, where individual vacuuming is unsatisfactory, the carder-comb must be encased and then vacuumed. Adequate low pressure must be maintained within the encasement.

(2) Encased and thoroughly vacuumed rams must be used to expell the drums from the carder.

Paragraph 11

Spinning-and threading machines must be fitted with vacuum-cleaners, if possible.

Paragraph 12

Sifting devices must be encased and vacuumed.

Paragraph 13

The loading areas of the cylindrical mills must be kept dust-free.

Paragraph 14

Looms must have a vacuuming device. The suction area must be located

below the shelf (in the form of a funnel) and on the spindle-tree.

Paragraph 15

Circulating air and pneumatic conveyer belts to move the chopped-up material must be available in centrifugal mills, e.g. when working on the disintegrator. If this is not possible, a vacuum system must be fitted above the loading area.

Paragraph 16

The preparing and manufacturing (e.g. sawing, grinding, spinning, filing) of products from asbestos-cement must only be carried out under thoroughly vacuumed conditions.

Paragraph 17

² Appropriate dust-proof attire must be worn at all times when stuffing various asbestos mattresses.

C. Examining the Effectiveness of the Dust-Removing Equipments

Paragraph 18

The presence of dust in the air of the working areas and the effectiveness of the dust-removing equipments can be tested only by special measuring instruments and testing methods both of which are not always possible for individual plants to undertake. In order to ensure that, the technical aspects of the precautions be carried out effectively, the plant official must contact the Professional Association before initiating any substantial remodeling changes of its technical installations. This may necessitate a consultation with the Agency for Dust Prevention of the Professional Association of the Reich-Union. This consultation is free of charge.

D. Employment of Minors

Paragraph 19

The employment of minors below the age of 18 years for jobs with dust hazards is not advisable with reference to Paragraph 18(1), Section 1 "General Specification".

E. Comportment of the Insured Worker

(1) Taking meals or remaining in the dust-hazardous working areas during rest periods, is prohibited.

(2) If street garments are removed they must not be left in the working area. The retained dust on the working clothes must be removed at regular intervals.

1. and 2. See: Resolutions of the German Committee on Dust Protecting Equipments. Appropriate dust protecting equipments are, for example, fresh air equipment, colloidal filters.

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water-closet bowl should be set free and open from all enclosing walls so that space around fixture may be cleaned easily. If the water-closet seat is of absorbent material, it should be finished with light-colored varnish or other substance impervious to moisture.

Personal Services

1. In all places of employment where it is necessary for male employees to change clothes or where females are employed, separate dressing rooms with lockers should be provided and maintained in sanitary condition.
2. Dressing rooms should be provided for men whenever the type of work performed involves exposure to excessive dust, dirt, heat, fumes, vapor, or moisture of such degree as is declared by the enforcing authority to require the same. Two-compartment lockers, or preferably two individual lockers, should be provided in dressing rooms for employees whose clothes are exposed to contamination with poisonous, infectious, or irritating material. Workers exposed to toxic substances, such as TNT and tetryl, should be required to change clothes completely and to take a shower bath at the end of each shift. The work clothes should be provided and laundered by the employer.
3. A retiring room should be provided in all work places where 10 or more women are employed. Where less than 10 women are employed and a retiring room is not furnished, some equivalent space should be provided which can be screened properly and made suitable for use of women employees. The minimum space provided for a retiring room for 10 women should be 60 square feet. For each additional female employee there should be at least 2 square feet of floor space. At least one couch or bed should be provided in every place where more than 10 women are employed. The number of beds or couches required follows:

BEDS FOR FEMALE EMPLOYEES

Number of Females Employed	Number of Beds
10 to 100	1
100 to 250	2
Over 250	1 additional bed for each 250 additional women

4. In every establishment a separate lunchroom should be maintained unless it is convenient for the employees to eat lunch away from the premises. No employees should be permitted to eat lunch at their place of work or in the workroom. At least one-half hour should be allowed each employee for lunch. The following table gives the number of square feet which are required per person, based on the maximum number of persons using the room at one time:

LUNCHROOM AREAS RECOMMENDED

Number of Persons	Square Feet Per Person
Less than 25	8
25 to 74	7
75 to 149	6
150 to 499	5
500 or more	4

Housekeeping

1. All places of employment, passageways, storerooms, and service rooms should be kept in a sanitary condition and the premises including the yards, courts, passages, areas, and alleys connected with the place of employment should be kept free from any accumulation of dirt, filth, rubbish, or garbage.
2. The floor of every workroom should be maintained in a clean, and, so far as possible, a dry condition. Where wet processes are used, reasonable drainage should be maintained and false floors, platforms, mats, or other dry standing places should be provided. The employer should, without expense to the employees, furnish proper boots or shoes for the use of the employees while at work in such places.
3. Floor and other walkway surfaces should be kept in good repair, and free from oil, water, protruding nails, splinters, holes, and loose boards.
4. So far as is practicable, sweeping and cleaning should be done outside of working hours and in such manner as to avoid the dissemination of dust. All sweepings, waste, refuse, and garbage should be removed as often as necessary to maintain the place of employment in a sanitary condition.
5. Expectoration upon the walls, floors, stairs, or equipment should be prohibited. Where cuspidors are needed, they

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