

EN-1029



E. I. DU PONT DE NEMOURS & COMPANY

INCORPORATED

WILMINGTON, DELAWARE 19898

ENGINEERING DEPARTMENT

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R. W. Calhoun - Tex. Fib. - Seaford
J. T. Cavanaugh-Pigments-Edge Moor
F. H. Dineen - Elchem - Wilm.
H. Lewis-Explos.-Carney's Pt. Dev.Lat
W. T. Muncaster-Elaschem-Chambers Wks
P. A. Palmer - ESD
W. S. Person - Orchem - Chambers Work
B. J. Stone - Design
C. W. Van Ness-Photo Prod.-Towanda
F. H. Whitaker - Design
I. Zeise - Construction

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MEMORANDUM NO. 2

TO: D. G. WINDSOR - CHAIRMAN - EMP. REL. - WILMINGTON

FROM: C. E. MARSH - STANDARDS SECTION

C. E. Marsh

STANDARDS SECTION - SAFETY & FIRE PROTECTION SUBCOMMITTEE
S4T - MEASUREMENT AND CONTROL OF ASBESTOS DUST EXPOSURE

Our request to the Engineering Standards Committee for approval of the above standard has brought the following additional comments.

~~K. W. DAHL, COMMENT BY C. C. PRING - PLASTICS - SABINE RIVER WORKS
COMMENT NO. 68 - We would like to have suggested sampling equipment added to the standard.~~

~~G. S. REEDER, JR., COMMENTS BY W. O. CHRISTY - EXPLOS. - SAVANNAH RIVER
COMMENT NO. 69 - 2.4 - Sampling fibers and particulates can differ.
The battery-operated sampler approved for fiber sampling should be specified to include millipore filter.~~

~~COMMENT NO. 70 - 3.1.2 - Type of vacuum cleaner and filter should be specified. Without high efficiency filters, this cleaning operation will filter out all particles and fibers, except those in the respirable fraction.~~

~~COMMENT NO. 71 - 3.1.3 - Type of respiratory protection should be specified.~~

~~COMMENT NO. 72 - 3.1.4 - Glaze-coated insulation is satisfactory until the coating is penetrated by cutting blocks.~~

~~COMMENT NO. 73 - 3.1.5 - This operation can still produce dust in breathing zones unless carefully controlled, perhaps a self-closing damper on the chute or flexible self-sealing slot.~~

~~COMMENT NO. 74 - 3.2.1 - Experience with cyclone collectors for asbestos indicates they are inefficient and in some instances cause atmospheric pollution.~~

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COMMENT NO. 75 - 3.2.2 - "An adequate exhaust system" should be defined. A minimal exhaust rate per fan should be specified. Our experience showed that, despite exhaust fans and no appearance of dustiness, the threshold limit value was still exceeded. Suitable protection is not defined. Consideration should be given to exposure of other people in the work area.

COMMENT NO. 76 - 3.2.3 - "Avoid Sweeping" - this should be a positive rule. Do not sweep.

COMMENT NO. 77 - Air sampling will not control dust. Air samples should be taken to document the adequacy of controls. (3.2.4)

COMMENT NO. 78 - 3.3.3 - Respiratory protective equipment should be worn when disposing of old asbestos cement.

COMMENT NO. 79 - 3.4.2 - Specify suitable respiratory protection.

COMMENT NO. 80 - 3.4.4 - We have found no plant or governmental regulations governing the disposal of asbestos.

COMMENT NO. 81 - 4.1 - This rule really says always wear respiratory protection when handling asbestos. Samples are sent away for analysis and results are known long after the fact - too long for corrective action.

COMMENT NO. 82 - 4.1.2 - A reference to U. S. Bureau of Mines Schedule 21-B, Part 14, Subpart A, item 14.4, minimum efficiency 0.3 micron is needed. Several suppliers of respirators that meet this requirement are:

Acme Protection Equipment Co.
1201 Kalamazoo Street
South Haven, Michigan

American Optical Company
Southbridge, Mass.

Mine Safety Equipment Co.
Braddock, Thomas, and Mead Streets
Pittsburgh, Pa.

COMMENT NO. 83 - 5.1 - Recommend addition of: " and should be disinfected after each use". (See S2H)

COMMENT NO. 84 - 5.2 - Recommend addition of: "wear respirator when removing dusty clothing".

COMMENT NO. 85 - 6.1 - Suggest clarification of this statement. Recommend addition of: "with a battery-powered personal air sampler." Suppliers of such samplers are: The Mine Safety Equipment Company and the Union Industrial Equipment Company.

COMMENT NO. 86 - 6.1.1 - Evaluating a complete operation in this manner will be very time consuming. Sampling with millipore (membrane) paper, or its equivalent, usually is of short duration (10-15 min.) because of the high collection efficiency of this paper. Such a procedure, as described, might involve taking many samples for an eight-hour shift for each operation. At \$15.00 per sample for analysis, the cost of this operation will exceed the benefits, since the results of these analyses are not known for some time and any reference to the TLV for

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that work period will be meaningless. Such a program of sampling could be satisfactory provided the work conditions do not change. Respiratory protection must be required in all cases where the degree of exposure is unknown.

COMMENT NO. 87 - 6.1.3 - Asbestos handling is now recognized as an extremely serious industrial hygiene problem. Analyzing asbestos samples is necessary. But the problems in sending samples several hundred miles by mail should be pointed out and the importance of correct handling emphasized. Some of the problems are: Transportation of samples may cause damage to the sample and possible loss of sample; delay in receiving results. This will, probably, be inevitable with laboratories receiving many such samples.

Expensive as it may appear, the alternative may be to do local monitoring, use local laboratories, or to utilize the best engineering and personal protective measures available.

W. A. PARMAN, COMMENT BY W. F. DOBBS - I & B - BELLE PLANT

COMMENT NO. 88 - 3.4.2 - Believe some exception should be made to this requirement permitting "small" amounts of insulation to be removed without respiratory protection. Can a rule-of-thumb quantity be stipulated which will not result in exposure to higher than permitted TLV? Can incidental removal of insulation not requiring over 5 to 10 minutes be excepted?

Sixteen Engineering Standards Committee members advise an estimated total of 245 uses for this standard as reference per year.

kjk

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