

FILE NAME: Asbestos Cement Pipe and Sheet (ACPS)

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Subject: Asbestos-Cement Product Use Exposures

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Dera Friends,

In campaigns against asbestos, it is important to point out the very high exposures associated with use of asbestos-cement (A-C) products in construction and demolition/renovation. I have tried to assemble some references on this and extract the key data below. If you want any of these references just let me know.

1. M Trosper (Johns-Manville) presentation at ASBESTOS INFORMATION ASSOCIATION NORTH AMERICA, THIRD ANNUAL INDUSTRY-GOVERNMENT CONFERENCE Sept. 8-9, 1976, pp. 109-115.

Describes dust control methods for cutting A-C flat sheet saying that without controls exposures were "about 250 f/cc". Using the very best control system that could be set up, this was reduced to 0.8 f/cc.

2. F Lomas (HM Inspector of Health and Safety), Presentation Notes "Control of Asbestos Cement and Asbestos Insulation Board" at conference "Asbestos: Justice and Prevention", Nottingham 23 Oct. 1997.

machine sawing without exhaust ventilation 15-25 f/cc abrasive disc saw, 10-20 f/cc circular saw, 2-10 jigsaw.

3. K Rodelsperger et al. "Estimation of Exposure to Asbestos-Cement Dust on Building Sites" BIOLOGICAL EFFECTS OF MINERAL FIBRES VOL 2 (Ed. JC Wagner), World Health Organization, 1980, pp. 845-853.

peak concentrations of more than 100 f/cc cutting asbestos-cement sheet.

4. Kumagai et al. "Estimation of asbestos exposure among workers repairing asbestos-cement pipes used for conduits," SANGKYO IGAKU 35: 178-187 (1993) abstract quoted in English by Henderson in comments to WTO (Nov. 19, 1999).

repair work on A-C pipes incl. use of high-speed disc cutter inside and outside of holes dug in the ground to gain access to the pipes -- 49-170 (mean 92) f/cc inside the hole, 1.7-15 f/cc outside.

5. R Weiner et al., Third Wave of asbestos-related disease from

secondary use of asbestros S AFR MED J 84: 158-160, 1994, cited in
CHRYSTOLE ASBESTOS, EHC-203, World Health Organization, 1998, p.
40.

hand-sawing A-C sheet 5.7 f/cc for sweeping, 8.6 f/cc drilling, 27.5
f/cc sanding. After clean-up of work area exposures were 0.5-1.7 f/cc

6. "DUST EXPOSURES DURING THE CUTTING AND MACHINING OF ASBESTOS-CEMENT
PIPE" A/C Pipe Producers Association, March, 1977 and "Additional
Studies" Dec. 1977.

abrasive disc saw cutting of A-C pipe wet: 26-109 and 42-65 f/cc
(operator), 31-54 and 10-49 f/cc (helper)

much lower exposures reported with other cutting tools, industry trade
group recommends against use of abrasive disc saw

7. WC Cooper, "A/C Pipe and Construction Practices -- a Compliance
Perspective." PERSPECTIVE '77/ PROCEEDINGS OF THE 5TH ANNUAL INDUSTRY
CONFERENCE, A/C PIPE PRODUCERS ASSOCIATION, Apr. 18-19, 1977, Mexico
City

abrasive disc saw cutting of A-C sewer pipe 35 f/cc (operator), 64 f/cc
(helper); A-C pressure pipe 20.3 (operator), 59.7 (helper).

Lower exposures were reported for other operations, and time-averaging
over longer periods produced lower time-averaged exposures for the
high-exposure activities.

The exposures in construction and demolition have defied efforts by
regulatory agencies all over the world, and it is reasonable to look at
worst-case situations as representative of what will happen as long as
these products are used in construction. I invite you all to distribute
this information.

Barry

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