

WOOD DUST EXPOSURE SUMMARY

FOREST INDUSTRY HEALTH RESEARCH PROGRAM

c/o Pulp & Paper Forum
#100-620 Royal Avenue
New Westminster, BC
V3L 5A8
Telephone: (604) 777-1533
Facsimile: (604) 777-1567

The *Forest Industry Health Research Program (FIHRP)* has completed a summary of wood dust exposure data collected in pulp mills over the past 15 months. A report is now available titled "***A Summary Of Wood Dust Exposure Assessments in BC Pulp and Paper Mills***". To request a copy, contact Agi Lee at the Pulp and Paper Employee Relations Forum at (604) 777-1533, send a fax to (604) 777-1567 or email alee@paperforum.com. Non-members of the Forum may be charged for the reports.

This summary analyzed 227 wood dust samples taken from seven mills in BC and Alberta, during the period September 1994 to September 1995. It found that the majority of mills participating had mean personal exposure levels of approximately 1 mg/m³. Two mills that had significantly higher mean personal exposure levels were influenced by a few very high exposure measurements. One mill that had a mean personal exposure level well below that of the other mills used a different collection technique which might have resulted in lower recorded levels.

Analysis of a frequency distribution of the data set containing personal measurements showed that 97% of the measurements were below 5 mg/m³, 88% below 2 mg/m³, and 70% below 1 mg/m³. These levels are of interest as they represent current and anticipated Workers' Compensation Board of British Columbia regulatory levels for wood dust.

The data was also categorized into seven work areas within mills: Chip Storage and Reclaim, Carpentry, Maintenance (excluding Carpentry), Conveyors and Digesters, Hog Fuel Systems, Chip Screening, and Woodroom. Three of the areas (Chip Storage and Reclaim, Carpentry, and Hog Fuel Systems) had mean personal exposure levels above 1.0 mg/m³, and might be considered priority areas for further investigation into exposure levels and control measures. Individual mills may find different priorities; however, the levels found in this summary suggest that mills who have not already undertaken exposure assessment should do so, as exposure levels in certain areas of the mills investigated are at a level which may be close to (or in excess of) future compliance limits. It is recommended that mills undertaking exposure assessments in the future review the previous ***FIHRP*** bulletins which deal with wood dust exposure [***FIHRP Bulletin No. 15 (02/95)***, and ***FIHRP Bulletin No. 16 (02/95)***] and emphasize personal exposure monitoring (the results in this bulletin show how area sampling tends to under-estimate personal exposures). In addition, an effort should be made to conduct systematic monitoring of all employees who are potentially exposed, and sample at least 2 or 3 shifts. This will provide the most useful data for examining long-term exposure levels.

A detailed analysis of this data to be undertaken in 1996 by ***FIHRP*** will look more closely at individual job titles to identify higher-risk tasks. It will also consider the effects of certain determinants of levels of exposure such as the location of the job (indoor vs. outdoor etc.) and the effect of the weather. It will compare, where appropriate, exposure levels found in industry to new WCB regulatory levels which are expected to be announced early in 1996. An investigation will be conducted to identify appropriate control measures, emphasizing proven solutions which can be adopted industry-wide.