

PHYSICAL HAZARDS IN THE PULP AND PAPER INDUSTRY

FOREST INDUSTRY HEALTH RESEARCH PROGRAM

c/o Pulp & Paper Forum
#100-620 Royal Avenue
New Westminster, BC
V3M 1J2
Telephone: (604) 777-1533
Facsimile: (604) 777-1567

The *Forest Industry Health Research Program (FIHRP)* has completed a review of physical hazards present in the pulp and paper industry and their associated health effects. A report is now available to members titled "**Physical Hazards in the Pulp and Paper Industry**". To request a copy, phone **Agi Lee** at the Pulp and Paper 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.

While chemical exposures have been studied to an extent in the pulp and paper industry, little attention has been focused on physical hazards and their associated health effects. Physical hazards may directly affect worker health such as heat exhaustion due to heat exposure or indirectly by acting adversely to increase the toxic response to a foreign substance.

The objective of this review was to identify the physical hazards present in the pulp and paper industry, review their associated health effects and rank the physical energies using a subjective risk assessment.

The mill surveys identified several physical hazards, namely, noise, heat and cold stress, ionizing radiation, and non-ionizing radiation (ultra-violet, infra-red, lasers and electro-magnetic fields). The literature review highlighted several health effects associated with each physical energy and are presented in separate sections in the report. Based on the results of the mill surveys and literature review, a risk assessment was then performed for ranking purposes.

The risk assessment was based on the extent of the presence of the physical hazard (i.e. location), the intensity of the exposure, the number of workers potentially affected, the average duration of exposure, and the seriousness of the health effects. As a result, noise was identified as the physical energy of greatest concern, while heat stress and EMF radiation are ranked second and third respectively. EMF radiation was ranked as a lower priority as the seriousness of the health effects still remain inconclusive, but ranked higher than the rest of the physical hazards due to the potential consequences if cancer is determined to be associated with exposure to EMF radiation in future studies.