



Danish prevention and legislation strategy

By

Bent Horn Andersen

National Working Environment
Authority, Denmark

The situation in wood and furniture industry from exposure from wood dust

- Exposure to mixture of chemical agents
- High incidens of hospitalising
- High incidens of symptoms from respiratory system: e.g. asthma, rhinitis, coughing
- cancer (nose and sinus)
- effects on health below the limit value

Danish legislation on wood dust

- Binding OEL on 2 mg/m^3 total dust
- 1997 "Machaerium Scleroxylum Tul (Pao Ferro/Santos Palisander)". Restrictions due to contact allergy
- 1996 "Prolonged exposure to high concentration of wood dust" is considered carcinogenic
- 2002 "Work involving exposure to hardwood dust" is considered carcinogenic

Council Directive 90/394/EEC on the protection of workers from the risks related to exposure to carcinogens or mutagens

- "Work involving exposure to hardwood dusts" included in sec. amendment of the directive (1999/38/EC).
- Include limit value on 5 mg/m^3 inhalable fraction
- To be implemented nationally by 29 April 2003

Directive 90/394/EEC lays down minimum requirements. Ex. of measures:

- Nature, degree and duration of the exposure
- duty to substitute, if not then closed system
- limitation of quantities and number of workers
- engineering control measures to minimise release
- evacuation at source
- hygiene measures
- information of workers
- demarcation of areas - emergency plans - storage - waste handling



Three ways to lower exposure to carcinogens!

- Substitution of the carcinogenic agent
- Lowering the exposure by limiting the release from the source: e.g. Local exhaust ventilation (LEV), closed systems, general ventilation
- Personal protection equipment PPE

What does it mean in practice

- Considerably below limit value on 2 mg/m^3
- periodic risk assessment, information of workers
- Control systems of the process ventilation system, no recirculation of ventilated air
- Local extraction system on manual machines
- Closed systems
- No cleaning with compressed air or broom but vacuum cleaning
- No smoking, no eating or drinking
- Safe collection, storage and disposal of waste
- Demarcation of risk areas

The actual situation in the wood and furniture industry

- Wood dust level considerably below limit value
- However, still health problems
- 70% of manual sanders with LEV
- 88 % of all wood adapting machines with LEV
- 70 % use compressed air when cleaning
- 98 % use broom when cleaning