Wood Dust – It’s Not Just a Nuisance Meeting Kit

WHAT’S AT STAKE

Wood dust is not just dust. It can lead to serious health problems if you are exposed to it. Wood dust is tiny particles of wood produced during the processing and handling of wood, chipboard, and/or hardboard. Exposure to wood dust occurs in many industries, including logging and sawmill operations, furniture and paper manufacturing, and construction of residential and commercial buildings.

WHAT’S THE DANGER

EXPOSURE TO WOODDUST – CARCINOGENIC DANGERS

Wood dust is considered carcinogenic to humans (Group 1) according to the International Agency for Research on Cancer (IARC). IARC states that wood dust causes cancer of the nasal cavity (nose area) and paranasal sinuses (spaces in and around the nasal cavity) and of the nasopharynx (upper part of the throat, behind the nose).

HEALTH EFFECTS OF WOOD DUST

Wood dust is also associated with toxic effects, irritation of the eyes, nose and throat, dermatitis, and respiratory system effects which include decreased lung capacity and allergic reactions.

Wood processing causes small particles of wood dust to become airborne. Workers can inhale these particles. A person’s upper respiratory system can filter out the larger particles, but smaller particles can go deep into the lungs causing damage and scarring to the lung tissue. Each time this happens a small amount of irreversible damage occurs. This damage reduces the lungs’ ability to take in oxygen and over time makes it increasingly

difficult to breathe.

Work activities that produce wood dust

Wood dust is created during all stages of wood processing such as sawing, routing, sanding and other operations. Workers can also be exposed when the dust becomes airborne such as when removing dust from furniture, maintenance activities, or when cleaning equipment (e.g., emptying the bag from a dust extraction system or vacuum).

SUMMARY OF WOODDUST RISKS TO WORKER HEALTH

- Inhaling dust into the lungs can cause breathing problems and lead to lung diseases such as occupational asthma and lung cancer. Breathing in dust is the most common type of exposure to wood dust.
- Getting dust in the eyes can cause irritation and damage.
- Skin contact with wood dust can cause ulceration of the skin, irritation and dermatitis.

WORKERS NEED TO KNOW DANGERS OF WOOD DUST

- The natural chemicals in the wood that appear to be associated with allergic reactions are found in the inner parts of the tree or heartwood. Wood may also contain biological contaminants such as molds and fungi, which often grow on the bark of the tree.
- Wood may be treated with arsenic, chromium, or other chemical preservatives. Workers are at risk of breathing in the chemical preservatives as well as the dust.
- Wood dust will also burn easily if ignited. Ignition sources include overheated motors or sparks. Concentrations of small dust particles in the air can form a mixture that will explode if ignited.
- Wood dust on the floor makes the floor slippery, increasing the risk of a slip, trip, or fall injury. Vision can be impaired by airborne dust generated during wood processing.

HOW TO PROTECT YOURSELF

WOOD DUST PROTECTION. Personal protective equipment (PPE) such as RPE shouldn’t be the first or only control considered. Elimination and engineering controls are more effective than administrative controls and PPE.

BEST WOOD DUST CONTROL PROTECTION MEASURES

- Know which type of wood is being used and all hazards associated with that wood.
- Substitute with another type of wood with no or fewer known health effects, where possible.
- Reduce dust generation. For example, reduce the need to cut or shape the wood.
- Use an appropriately designed industrial ventilation system, including local ventilation exhaust and the use of high-efficiency particulate (HEPA) filters.
- Keep tools and blades sharp. As tools dull, they may release more dust into the air.
- Be aware that significant exposure can happen when cleaning (e.g., emptying dust bags).
- Practice good housekeeping. Keep surfaces and floors clear.
- Use cleaning methods that reduce re-introducing the dust into the air. Use wet clean-up methods (e.g., wipe surfaces with a wet rag or mop) or use a vacuum with a HEPA filter.
- Read, understand, and follow health and safety information on the safety data sheet.
- Provide appropriate education and training that informs employees about the hazards of wood dust exposure, safe work procedures, how to identify when a ventilation system is working appropriately, and the importance of control measures.
- Wear respiratory protection when appropriate.
- Use protective clothing and gloves to reduce skin exposure.
- Practice good personal hygiene (e.g., wash or shower to remove dust from skin). Wash hands and face when finished a task, and before eating, drinking or smoking. Clean clothes by washing or using a vacuum when washing facilities are not

available.

- Bag and seal dust waste to prevent dust from re-entering the air.
- DO NOT use compressed air to blow dust off of furniture, equipment or clothing.
- To prevent a combustible dust explosion, DO NOT allow wood dust to accumulate, including on ledges, ceiling beams, light fixtures, hidden areas, etc.
- Eliminate risk by buying pre-cut or processed wood materials.
- Use on-tool extraction on saws and grinders to control wood dust at source.
- Use water damping methods where practical.
- Provide a suitable industrial vacuum to remove dust from work areas.
- Minimize worker exposure by limiting the time each person spends doing dusty work.
- Workers wear respiratory protection equipment (RPE) when emptying vacuum cleaner bags or collection bags.

FINAL WORD

There are a wide variety of control measures that can be put in place to help reduce elevated dust levels from choosing tools that can help reduce dust creation to cleaning procedures as well as wearing appropriate respiratory protection equipment.