Pohjola Insurance

Safety regulations for the mechanical wood industry, S415

Your responsibility to prevent damage, Valid as of 1 January 2023

Welcome to read these safety regulations!

Your business has an obligation to prevent damage. In these safety regulations, we explain what your business must do and take into consideration with respect to the mechanical wood industry.

ⓘ Read the regulations carefully. If you do not comply with the regulations, your insurance compensation may be reduced or denied.

These safety regulations are part of your insurance contract

Your insurance contract consists of the policy document, insurance terms and conditions, safety regulations, and the general contract terms and conditions.

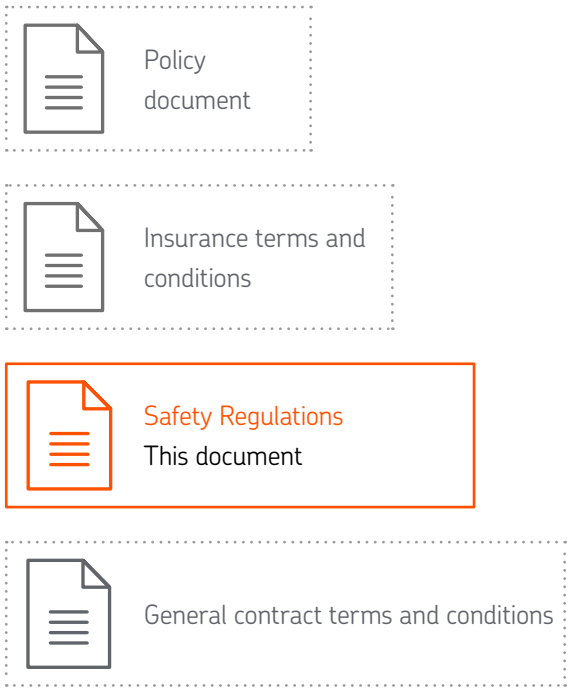
The policy document lists your company's insurance policies and the terms and conditions applicable to them.

The insurance terms and conditions describe the terms under which your property is insured.

The safety regulations describe your company's obligations to prevent damage

The general contract terms and conditions list terms that apply to all insurance policies issued by Pohjola Insurance.

We interpret the policy document, insurance terms and conditions, safety regulations, and general contract terms and conditions as a whole.



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Please note that the following safety regulations also apply to your insurance contract:

- Hot Work S621
- Daily Fire Prevention S411
- Safety Regulations for Structural Break-in Protection 1 S850
- Prevention of Electric Fires S331
- Automatic Fire Alarms S821
- Fire Safety of a Solid-fuel Heating Station S925.

1 Purpose of the safety regulations

The purpose of these safety regulations is to prevent fire damage in the mechanical wood industry. These safety regulations set out the requirements for fire safety in the mechanical wood industry.

These safety regulations apply to mechanical wood processing and sawmills as well as to industrial plants in the woodworking industry, such as planing mills, joinery shops, and housing factories.

Your business has an obligation to ensure that

- the safety regulations are followed in all activities carried out by the policyholder or its equivalent
- those responsible for the work performance and employees of the facility are familiar with the contents of the safety regulations

ⓘ Rescue and construction legislation as well as building regulations must always be taken into account in the planning, acquisition and enforcement of fire safety.

2 Requirements for daily fire safety

Order, cleaning and maintenance

ⓘ Pay special attention to difficult areas, such as cleaning the undersides of electric engines, electric shelves and conveyors

✓ Follow the safety regulation on Daily Fire Prevention.

✓ Draw up a separate cleaning plan that includes the following items:

- General cleaning
- Monitoring and cleaning of different areas
- Removal of sawing and other waste (daily, weekly, etc.)
- Removal of dust (at least twice annually)
- Daily cleaning of machinery and equipment
- Daily emptying of waste containers.

ATEX – Safety in potentially explosive atmospheres

✓ **Draw up** an explosion protection guide in all workplaces where flammable liquid, gas or dust is stored or handled.

✓ **Ensure** that the outcome of the risk assessment and technical and organisational protection methods are presented in the explosion protection guide.

Dust and sawdust removal equipment

ⓘ Draw up a separate maintenance schedule for dust and sawdust removal equipment, specifying the maintenance and checks applicable to the equipment

Structural requirements for indoor and outdoor use

✓ **Ensure** that the filter unit or silo located inside a building is fire compartmented using an EI 60 structure at the minimum.

- The fire compartmentation requirement does not apply to sawdust and dust extraction units that are portable or attached to individual wood-processing machinery.

✓ **Ensure** that the filter unit or silo located on the roof is fire compartmented using an EI 30 structure at the minimum.

✓ **Ensure** that the structures of dust and sawdust extraction systems are sealed to avoid dust from spreading in the environment.

If a filter unit or silo located next to a building is within 8 metres from the building's eaves or not protected by automatic extinguishing equipment,

✓ **Ensure** that

- the unit or silo is fire compartmented using an EI 30 structure at the minimum and that:
- Fire compartmentation is implemented across the entire height of the wall and in the eave. Horizontal fire compartmentation must extend 4 metres from the edge of the filter unit along the exterior wall, as measured from the sides of the filter unit or silo.

Technical protection requirements

✓ **Store** flammable liquids in a separate fire compartment.

✓ **Place** dry wood chippers at least 8 metres from the exterior of the building. Keep chippers/crushers used indoors under constant supervision and reserve sufficient first-aid extinguishing equipment (hose reel or at least 2 × 55 A 233 BC fire extinguishers).

✓ **Protect** the filter unit or silo of dust and sawdust removal equipment with an automatic extinguishing system if the equipment is located within 8 metres of a building equipped with automatic fire extinguishing equipment.

✓ **Ensure** that dust and sawdust extraction ducts are equipped with spark detectors and fire extinguishing systems so that dangerous sparks cannot enter the filter unit an silo.

✓ **Ensure** that the filter's intake air duct is equipped with a fire valve or shutter valve.

✓ **Ensure** that return air ducts leading into an indoor space are equipped with a fire valve.

✓ **Ensure** that the minimum fire resistance of the sawdust pipes inside the building's attic or hollow spaces is EI 60.

✓ **Ensure** that the suction and transferred air fans of the dust and sawdust removal equipment as well as their electric motors conform to the ATEX requirements, where a safety device will stop them if the surface temperature exceeds 100 °C.

✓ **Ensure** that the dust and sawdust extraction system and ducts include equipotential bonding and earthing.

✓ **Inspect** the equipotential bonding and earthing annually and **document** the measurement results.

ⓘ The major risks of surface treatment are related to flammable liquids, dust, static sparking and spontaneous combustion.

Safe surface treatment

Surface treatment refers to, for example, painting, grinding, varnishing and different kinds of coating.

✓ **Ensure** sufficient air humidity. Static sparking increases in surface treatment when relative humidity drops below 25 %:iin.

✓ **Direct** abrasive dust generated in surface treatment always to a dust extraction system. Follow the requirements described in the section on sawdust and dust extraction equipment.

Flammable liquids and use of composite plastic in coating

✓ **Always store** flammable liquids in a separate space compartmented in accordance with the purpose of use and ventilated in accordance with ATEX guidelines.

✓ **Protect** the compartment against container leaks.

✓ **Ensure** the prevention of static parking with equipotential bonding of the metal frames of composite plastic moulds and earthing, among other means.

✓ **Observe** special attention to the design, installation and maintenance of earthing and equipotential bonding to prevent hazards caused by static sparking.

✓ **Inspect** the equipotential bonding and earthing on a regular basis and document the measurement results.

✓ **Store** only the amount of flammable liquids needed for one day's work at the surface treatment unit.

✓ **Remove** excess fire load from the surface treatment unit daily.

Waste and residue from surface treatment

✓ **Store** all waste and residue from surface treatment securely in lidded metal waste containers.

✓ **Place** waste containers at least 1.5 metres from flammable structures or materials.

✓ **Ensure** at least 2 metres of free space above the waste container relative to any flammable material.

✓ **Empty** waste containers at the latest at the end of the shift in a safe location.

Spontaneously combustible materials include flax-, hemp- and cotton-based oils. Turpentine, varnishes, alkyd paints and peroxide-based hardeners used in fibreglass work also create a spontaneous combustion hazard.

3 Requirements for sawmills

In addition to the actual sawing line, a **sawmill** also refers to all stages of the process from the log storage to the finished material storage.

Automatic fire extinguishing equipment

ⓘ Equip sawmills with automatic fire extinguishing equipment whenever possible.

- ✓ **Follow** the requirements of rescue and construction legislation and building regulations on when to equip the building with a sprinkler system.
- ✓ **Design** and install the sprinkler system pursuant to the sprinkler regulations in force.
- ✓ **Protect** premises that contain electrical equipment with automatic fire extinguishing equipment.
- ✓ **Equip** the facility with automatic gaseous fire suppression equipment unless prevented by personnel safety requirements.
- ✓ **Protect** the premises with an automatic fire alarm system at the minimum if it is not possible to install automatic fire extinguishing equipment.

First-aid extinguishing and standby readiness

- ✓ **Ensure** that hand-held fire extinguishers and other first-aid fire extinguishing equipment are appropriately inspected and maintained regularly.
- ✓ **Ensure** that the areas in front of the first-aid extinguishing equipment are kept unobstructed.
- ✓ **Ensure** that there is at least one hand-held fire extinguisher for each 300 m2 of area, in such a manner that the maximum distance to the nearest hand-held fire extinguisher is 20 metres.
- ✓ **Ensure** that the hose reel reaches the area that needs protecting in the facility in question.
    - The hose must be sufficiently long in relation to the accessways of the premises.
- ✓ **Ensure** that the space equipped with a hose reel is also always equipped with an appropriate hand-held fire extinguisher.
- ✓ **Ensure** that employees are trained in using first-aid extinguishers and alerting rescue services.
- ✓ **Ensure** that fire hydrants used by the fire department are unobstructed and marked.

Safety training and inspections

ⓘ Safety inspections assess and improve fire and structural safety, and a record must be kept of them.

- ✓ **Organise** safety training for personnel at least once every two years.
- ✓ **Train** new employees on safety issues as part of other orientation.
- ✓ **Carry out** regular internal safety inspections.
- ✓ **Ensure** that personnel in charge of safety participate in the safety inspections.

Fire safety manager and fire marshal

- ✓ **Ensure** that the sawmill has a fire safety manager.
    - The fire safety manager's responsibility is to manage, improve and monitor fire safety at the plant.
- ✓ **Ensure** that each department has a trained fire marshal and firefighting team.
- ✓ **Ensure** that the fire marshal and members of the firefighting team are trained in the use of first-aid extinguishing and first measures in the event of fire.
- ✓ **Ensure** that the fire marshal monitors the enforcement of daily fire safety in their area of responsibility.

Rescue plan

- ✓ **Ensure** that the sawmill has an up-to-date rescue plan that includes a plan of action in the event of an accident and a hot work plan.
- ✓ **Ensure** that all members of personnel are familiar with the rescue plan.

Facilities with a sawing capacity of more than 80,000 m^3

- ✓ **Ensure** that the facility has a fire safety manager and industrial fire chief.
    - The fire safety manager's responsibility is to manage, improve and monitor fire safety at the plant. The industrial fire chief is responsible for the personnel's safety training and drawing up safety plans, as well as the operations, training and readiness of the fire brigade.
- ✓ **Ensure** that the industrial fire chief has received the required training.

Structural fire safety

ⓘ Ensure that fire compartmentation is implemented in compliance with fire safety and building legislation.

- ✓ Ensure that the following areas are separated from production facilities by means of fireproof (at least EI60) compartments:
    - transformer substations
    - electric equipment rooms
    - compressed air centres
    - automation facilities
    - flammable liquid storerooms
    - hydraulics facilities
    - blade maintenance and repair facilities
    - maintenance facilities
    - dry goods chipper facilities
    - central dust filtering station
    - working machine storage areas.

Blades and blade maintenance

- ✓ **Ensure** that blades are maintained only by trained and professional maintenance technicians.
- ✓ **Ensure** that blades are sharpened only in a designated sharpening room.
- ✓ **Observe** the safety regulations on hot work if it is necessary to sharpen blades in a location other than a sharpening room.
- ✗ **Do not use blades meant for sawing wood to saw other materials.**

Chemical safety

- ✓ **Draw up** an internal rescue plan if your company is engaged in wide-scale industrial chemicals processing and storage in accordance with the Act on the Safe Handling and Storage of Dangerous Chemicals and Explosives**.**
- ✓ **Ensure** that the handling, storage and disposal of chemicals that pose a fire or explosion hazard are implemented in accordance with the method referred to in the safety data sheets and the chemical's label.
- ✓ **Instruct** employees on the safe use, storage and disposal of chemicals that pose a fire or explosion hazard.
- ✓ **Monitor** employees' compliance with the above instructions.

Clear space

- ✓ **Ensure** a clear space of at least 30 metres between production and storage buildings as well as between clusters of several storage buildings.
- ✓ **Ensure** that production facilities have a clear space of at least 10 metres from the facility's exterior.
- ✓ **Place** sawdust and wood chip silos, open sawdust and bark stores and wood material at least 10 metres from the sawmill building.
- ✗ **Do not store wood material or other flammable materials near a production facility, for example, against the wall.**

Traffic at sawmills

ⓘ There should be no public roads within the sawmill area.

- ✓ **Keep** unnecessary traffic inside the storage area at a minimum.

4 Requirements for vehicles operated at sawmills

If cars, tractors, forklift trucks or other motor vehicles are operated within the sawmill area, the following instructions must be observed:

- ✓ **Ensure** that the vehicle is equipped with at least one 43 A 233 BC class hand-held fire extinguisher.
- ✓ **Ensure** that all working machines operated in areas with a risk of fire, such as raw material fields, are equipped with at least semiautomatic fire extinguishing equipment
    - We will provide further information on approved fire extinguishing systems if necessary.
- ✓ **Ensure** that working machines are equipped with a main power switch that cuts off power to all systems of the machine, with the exception of automatic fire extinguishing equipment.
- ✓ **Ensure** that power must be switched off whenever the machine is not in use.
- ✓ **Ensure** the fire safety of the fuel tanks of vehicles with internal combustion engines.
- ✓ **Ensure** that refilling fuel tanks is done in accordance with fire safety guidelines.
- ✓ **Ensure** that the exhaust pipes of engines are equipped with a special spark extinguisher.
- ✓ **Ensure** that the vehicles are parked at a distance from production facilities and timber stores.
- ✓ **Ensure** a clear space of at least 10 metres between a standing working machine and a building or flammable material.
- ✓ **Ensure** a clear space of at least 5 metres between parked motor vehicles if there are several motor vehicles parked in the same area within the facility.
- ✓ **Ensure** that charging stations for electric forklift trucks are located separately from production or storage facilities or, alternatively, construct a fireproof charging station equipped with an extinguisher suitable for electrical fires.

By following these regulations, you will ensure occupational safety and avoid unpleasant surprises in the event of an insurance claim.

Thank you for taking the time to read these safety regulations!

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