

Manufacturing Inspection Checklist: Safeguarding, Lockout, and Combustible Dust

This guide is intended to make employers aware of the parts of the Occupational Health and Safety Regulation, the *Workers Compensation Act*, OHS Policies, and best practices related to common hazards in manufacturing, including safeguarding, lockout, and combustible dust.

Firm name: _____

Date: _____

ITEM 1 – Safeguarding	Regulatory reference (*applies only to wood product manufacturing)	Yes	No	N/A
Identifying and assessing the hazard				
Has the employer identified all machinery and equipment hazards?				
<ul style="list-style-type: none"> • Mechanical power transmission parts: <ul style="list-style-type: none"> - Rotating hazards - Gears and sprockets - Reciprocating machinery - Drive belts - Pulleys and flywheels 	OHSR 12.16–12.21			
<ul style="list-style-type: none"> • Conveyors 	OHSR 12.22–12.28			
<ul style="list-style-type: none"> • Feed — rolls and metal-forming rolls 	OHSR 12.34–12.36			
<ul style="list-style-type: none"> • Lathes, mills, and other machine tools 	OHSR 12.37–12.43			
<ul style="list-style-type: none"> • Abrasive wheels 	OHSR 12.29–12.32			
<ul style="list-style-type: none"> • Power presses, brake presses, and shears 	OHSR 12.34–12.36			
<ul style="list-style-type: none"> • Powder actuated tools 	OHSR 12.51–12.57			

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• Woodworking tools	OHSR 12.58–12.67			
• Miscellaneous equipment	OHSR 12.81–12.83			
• Breaking and melting metal	OHSR 12.93–12.96			
• Other physical hazards	OHSR 12.13			
• Temperature extremes	OHSR 4.38			
• Protection from flying debris	OHSR 27.2*			
• Kickback and kickout protection	OHSR 27.3*			
• Pressure rolls	OHSR 27.4*			
• Crossing green chains and decks	OHSR 27.5*			
• Lumber package roll case access	OHSR 27.6*			
• Mechanical handlers	OHSR 27.7*			
• Veneer clippers	OHSR 27.8*			
• Hidden hazards	OHSR 27.11*			
• Babbit melting	OHSR 27.16*			
• Circular, band, slasher, trim, cut-off, and chop saws	OHSR 27.18–25*			
• Operator locations	OHSR 27.26*			
• Log handling	OHSR 27.33–34*			
• Barker feed	OHSR 27.35*			
• Headrigs	OHSR 27.37–27.40*			
• Chippers, hogs, and planers	OHSR 27.41–27.42*			
• Shake and shingle equipment	OHSR 27.45–27.55*			

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<ul style="list-style-type: none"> Hazardous power transmission parts 	OHSR 12.2			
<ul style="list-style-type: none"> Hazardous points of operation (the danger area in a machinery where a part is being formed or work is being done) 	OHSR 12.2			
<ul style="list-style-type: none"> Materials that can be ejected by the work process 	OHSR 12.2			
<p>Has the employer identified all work activities and tasks that require workers to interact with machinery and equipment?</p> <ul style="list-style-type: none"> Are there work stations where operators regularly interact with equipment, tools, or processes? Are workers called upon to clear obstructions from the normal operational flow? Do workers perform maintenance work on machinery and process equipment? Do workers perform clean-up activities around machinery and process equipment? 	OHSR 12.3			
Selecting the appropriate guard or safeguard				
<p>Has the employer identified the specific guarding or safeguarding requirements identified by the Regulation?</p> <p>(Note: Certain Regulation sections specify hazards to be controlled by guarding while others allow for safeguarding.)</p>	OHSR Part 4, Part 12, and Part 27			
<p>Has the employer conducted a risk assessment for each piece of machinery to identify the most appropriate guarding or safeguarding application?</p>	OHSR 12.3			
<p>Does the risk assessment consider the worker tasks and activities associated with the machinery?</p>	OHSR 12.3			
<p>Are guards designed to prevent worker access to the hazard by reaching over, under, around, or through to a moving part or point of operation?</p>	OHSR 12.1			
<p>Do guard openings and reach distances meet the requirements of CSA Standard Z432-94?</p>	OHSR 12.3			
<p>Does machinery safeguarding follow the hierarchy of safeguarding controls?</p>	Best practice			
<p>Are safeguards equipped with interlock devices that prevent removal while equipment movement is detected?</p>	Best practice			

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Ensuring ongoing effectiveness of safeguarding				
Has the employer reviewed its safeguarding to determine its effectiveness in performing its intended function?	OHSR 12.4			
Does the employer conduct regular inspections to identify inadequate or damaged safeguards?	OHSR 3.5			
Does the employer conduct regular inspections to ensure safeguards are not circumvented, removed, or rendered ineffective?	OHSR 12.4			
Does the employer conduct regular inspections to identify hazards that were not previously safeguarded?	OHSR 4.12			
Does the employer conduct regular inspections to ensure safeguarding is used properly?	OHSR 12.2			
Has the employer conducted the necessary education, training, and supervision to ensure safeguards are properly designed, installed, and maintained?	WCA 21(2)(e)			
Has the employer conducted the necessary education, training, and supervision to ensure safeguards are used as intended (not circumvented or modified)?	WCA 21(2)(e)			
Are safeguarding factors in relation to unsafe acts, conditions, or procedures considered when conducting incident investigations?	OHSR 3.3			
Managing safeguarding deficiencies				
Are safeguarding deficiencies remedied without delay?	OHSR 3.9			
Have safeguarding needs been prioritized based on risk?	Best practice			
Are effective interim measures (warnings, awareness, lockout procedures, or other safe work procedures) implemented when safeguarding deficiencies are identified?	Best practice			

ITEM 2 – Lockout	Regulatory reference	Yes	No	N/A
Are situations identified where de-energization and lockout are required?	OHSR 10.2, 10.3			
Is “maintenance” vs. “normal production” work clearly differentiated?	OHSR 10.1			
Has the employer developed acceptable de-energization and lockout procedures?	OHSR 10.4			
Do the procedures include effective means of verifying lockout?	OHSR 10.5			
Is there a procedure for lock removal?	OHSR 10.8			
Have adequate group lockout procedures been established?	OHSR 10.9			
<p>Where lockout is not practicable, are there appropriate alternate procedures for equipment and systems? Include:</p> <ul style="list-style-type: none"> • Power systems • Mobile equipment • Emergency situations 	OHSR 10.10			
Are there clear procedures for situations where locks are not required? (exclusive and immediate control)	OHSR 10.11			
Has the employer developed specific procedures for work on equipment that must remain energized?	OHSR 10.12			
Does the employer conduct regular inspections to ensure lockout procedures are properly followed?	OHSR 3.5			
Does the employer conduct regular inspections to ensure isolation and lockout devices are not damaged or circumvented?	OHSR 3.5			
Are lockout deficiencies remedied without delay?	OHSR 3.9			
<p>Has the employer conducted the necessary education, training, and supervision? Include:</p> <ul style="list-style-type: none"> • Education on various hazardous sources of energy (electrical, mechanical, chemical, kinetic, etc.) • Training on the 5 basic steps of de-energization & lockout • Training on any specific procedures that may apply • Supervision and observation of lockouts by workers 	WCA 21(2)(e)			

ITEM 3 – Combustible dust	Regulatory reference	Yes	No	N/A
Is combustible dust is being safely removed before accumulations could cause a fire or explosion?	OHSR 5.81			
Have combustible dust sources within the workplace been identified?	Best practice			
Has the combustibility of the dust been evaluated?	Best practice			
Have locations and rates of accumulation been assessed?	Best practice			
Have acceptable thresholds been determined?	Best practice			
Have effective controls been implemented to eliminate or minimize combustible dust generation and accumulation?	Best practice			
Have regular cleanup schedules been established?	Best practice			
Are fire and explosion hazards due to combustible dust remedied without delay?	OHSR 3.9			
Are ventilation controls designed, installed, and maintained using established engineering principles?	OHSR 5.61			
Are dust collectors properly located and constructed to meet the BC Fire Code and the Regulation?	OHSR 5.71			
Have procedures been established to ensure the safe use of compressed air?	OHSR 4.42			
Do hot work procedures address combustible dust hazards?	OHSR 12.112			
Are regular inspections conducted to identify combustible dust accumulations?	OHSR 3.5			
Are regular inspections conducted to verify the ongoing effectiveness of controls, including housekeeping?	OHSR 3.5			
Are regular inspections conducted to ensure safe practices are being used when cleaning up combustible dust and performing hot work?	OHSR 3.5			
Are combustible dust hazards and deficiencies remedied without delay?	OHSR 3.9			

ITEM 3 – Combustible dust	Regulatory reference	Yes	No	N/A
Are workers instructed on combustible hazards and applicable safe work procedures (including compressed air use), and are they supervised to ensure they work safely in relation to combustible dust?	WCA 21(2)(e)			
Are reasonable steps to address the hazards of combustible wood dust in place? (applies only to wood product manufacturing — Wood Dust Mitigation and Control program)	Policy P2-21-3			

Best practices are not explicit requirements within the Regulation, but they have been identified to assist employers in complying with their general duty obligations under the Workers Compensation Act.

Visit worksafebc.com/manufacturing for links to related resources.