

ONTARIO FORESTRY SAFE WORKPLACE ASSOCIATION

SWO
CONVENTIONAL LOGGING
RESOURCE PACKAGE



OFSWA
Ontario Forestry Safe Workplace Association

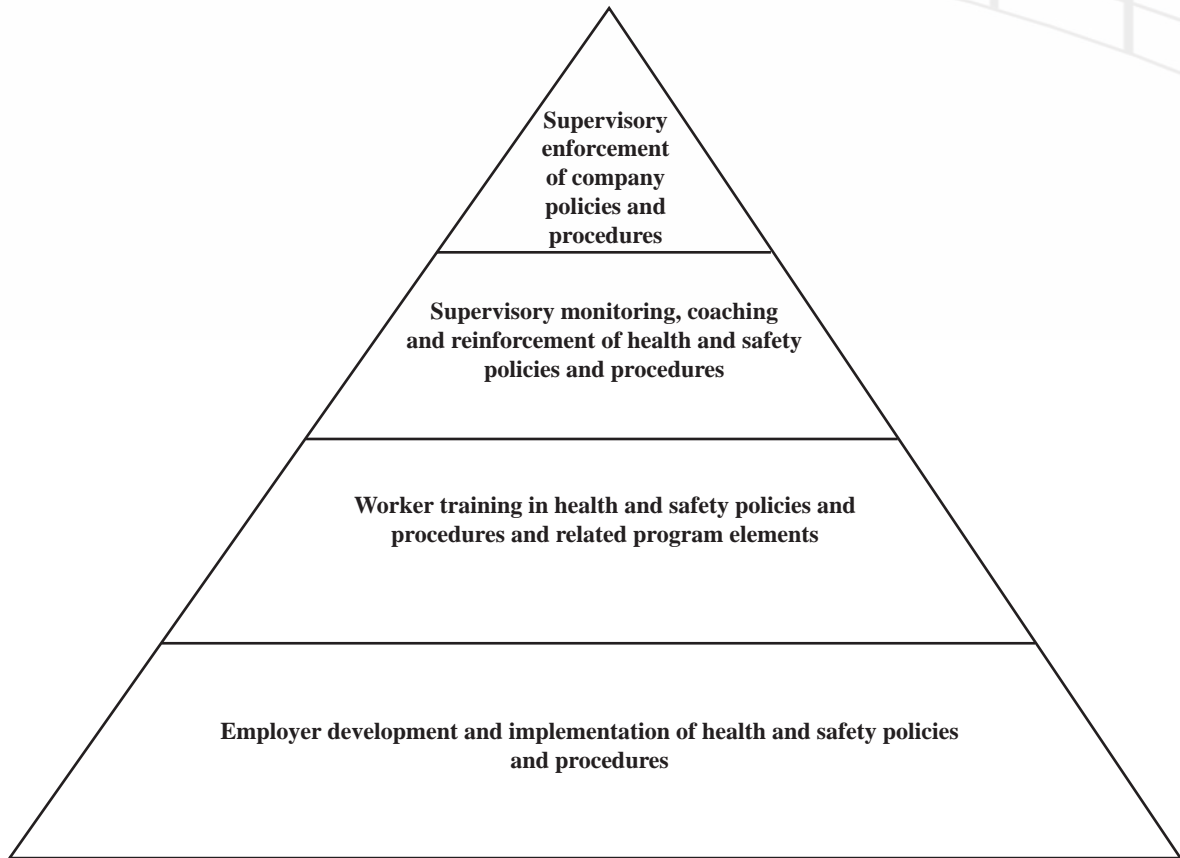
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Health and safety program development



The following resource package includes a number of samples of important policies and procedures for any conventional logging operation. The package provides guidance on the development of some of the areas, such as lockout and machine guarding, which OFSWA has identified as weaknesses within industry health and safety programs. The above pyramid outlines key elements which are important to the success of any program.

A good starting point in assessing your current health and safety program is to review past workplace injuries. This review can identify injury trends or weaknesses in injury investigations, reporting or follow-up. The following points may assist in this assessment:

- a. Are there consistent injury trends?
- b. Do injury investigations and related reporting address potential weaknesses in:
 - i. Current policies and procedures
 - ii. Worker training
 - iii. Monitoring, coaching and reinforcement
 - iv. Enforcement

The remainder of this resource package has been developed to provide guidance on other important areas such as the Cutter/Skidder Operator certification process. If you have any questions or require additional guidance in relation to this material or in developing your health and safety program, please contact your local OFSWA Consultant Trainer for assistance.

OFSWA Consultant Trainer focus firm action plan criteria and associated protocols

- ☑ Review trailing indicators or past year's injuries which have resulted in the firm being identified.
- ☑ Discuss and review injury investigation reports to address potential weaknesses in the firm's incident investigation procedure including ensuring reports address current policies and procedures, worker training, monitoring, coaching and reinforcement of policies and procedures as well as ongoing enforcement by supervision.
- ☑ Review, comment and provide recommendations as necessary on the status of Machine Guarding: Policies, Procedures, worker training, monitoring, coaching and reinforcement of the policies and procedures as well as ongoing enforcement by supervision.
- ☑ Conduct an on-site assessment of the application of these elements :(see OFSWA's Machine Guarding Audit Guidelines for further info.)
- ☑ Review, comment and provide recommendations as necessary on the status of Lockout: Policies, Procedures, worker training, monitoring, coaching and reinforcement of policies and procedures as well as ongoing enforcement by supervision.
- ☑ Conduct an on-site assessment of the application of these elements: :(see OFSWA's Machine Lock-out Audit Guidelines for more info.)
- ☑ Review, comment and provide recommendations as necessary on the status of the firms WMSD Program: Policies, Procedure, worker training, monitoring, coaching and reinforcement of policies and procedures as well as ongoing enforcement by supervision.
- ☑ Recommend sector-specific Safe Workplace Ontario (SWO) program as an excellent resource tool in developing and advancing the firm's health and safety program.

OFSWA CONSULTANT TRAINER FOCUS FIRM ACTION PLAN FOLLOW-UP CRITERIA

- ☑ Review recent lost time or medical aid injuries occurring since last consultation and where necessary provide recommendations regarding additional action required in policy/procedure development, worker training, monitoring, reinforcement or enforcement by supervision or provide positive reinforcement to the firm for experiencing no injuries. Consider how WMSD issues may have impacted on any injuries which occurred and recommend means of addressing these concerns.
- ☑ Review the firms' progress towards 2006 focus firm action plan recommendations.
- ☑ Confirm that health and safety training requirements for new workers or workers transferring to another job has occurred.
- ☑ Confirm the ongoing monitoring, reinforcement and enforcement of policies and procedures by supervision.

Company standards for cutters and skidder operators

1. Personal Protective Equipment:

Cutter: cutter boots, cutter pants or chaps, cutter mitts or gloves, CSA-approved hardhat, face screen or safety glasses, ear muffs or plugs and high-visibility clothing.

Skidder Operator: cutter boots, double-palmed mitts or gloves, CSA-approved hardhat, face screen or goggles, ear muffs or plugs (if over 90 db) and high-visibility clothing.

2. Power Saw:

- must be equipped with operating chain brake, safety throttle, chain catcher and safety chain
- must have saw chain properly tensioned, sharpened and filed according to the manufacturer's specifications and maintained in a safe operating condition
- must be started on the ground or on a stump or with the leg lock method
- must be held firmly with both hands while cutting and have the chain stopped when not cutting
- is to be carried short distances with the left hand on the forward handle and the right hand off of the saw
- is to be carried greater distances with the engine stopped

3. Felling:

- before felling live trees, all spring poles and chicots in the felling area are to be carefully lowered to the ground
- all chicots are to be assessed and where safe to do so, carefully cut with a powersaw, otherwise lowered using the fairlead of the skidder (pushpoles may be required where skidder access is not possible)
- no trees are to be felled unless everyone is clear of the danger area at the base of the tree and at least one escape route (back and away at 45 degrees) is to be cleared of hazards before felling
- tree lean, wind direction and speed, ice or snow loading, optimum skidding and damage to other trees are to be assessed before notching
- wedges are to be carried at all times and used when required to assist in directional felling
- conventional, V, or Humboldt notches are to cut to proper depth and opening
- overcut notches are to be corrected before the backcut is made
- backcuts are to be flat and level and 1 to 2 inches above the notch
- a hinge of about 1/10th of the tree diameter (maximum of about 2 in.) is to be left to guide the tree as it falls
- hangups and free-standing trees are to be lowered to the ground as soon as possible
- the area around hangups and free-standing trees is to be kept free of all other workers
- the proper escape route is to be used to the appropriate distance from the tree as it falls

4. Limbing/butting/topping/bucking:

- the escape position is to be maintained until the tree has fallen to the ground and all hazards have been assessed
- limbing is to be done only after the situation has been assessed for hazards such as spring poles and stress points
- limbing is to be done with the feet firmly planted on the ground and on the uphill side of the tree
- cull ends are to be removed in appropriate sections
- limbs are to be removed flush to the stem of the tree

5. Skidding:

- circle checks of the machine are to be done at the start and end of each shift
- skidding is to be done at a proper speed and with minimal damage to standing trees
- side hill travel is to be avoided whenever possible and straight-line winching is to be used when possible
- the blade is to be lowered to the ground or firmly supported when the cab is unoccupied
- no skidding or winching is to take place until all workers are out of the danger zone
- if in the skidding area, the cutter is to give a clear hand signal before winching begins
- before leaving the cutting area, the skidder operator is to get an all-clear signal from the cutter
- three-point contact (facing the machine) is to be used when mounting or dismounting the skidder

6. Lockout

- all mechanical equipment is to be locked out and zero-energy state achieved before working on it as noted in company policy and procedures

7. Guarding:

- manufacturers' guards are to be maintained on all equipment as noted in the company policy and procedures
- where manufacturers' guards do not adequately prevent access to hazards, custom guards are required

8. Compliance:

- failure to comply with these standards will result in the following action:
 - first offence - verbal warning
 - second offence - written warning
 - third offence - two days off without pay
 - fourth offence - dismissal

9. Signatures:

- by signing below, both parties agree that all of the above items have been discussed and clearly understood

_____ (worker)

_____ (supervisor)

_____ (date)

_____ (date)

Lockout policy and procedures for logging

Lockout Policy:

No worker will conduct repairs, maintenance or cleaning of machinery or equipment without controlling all forms of energy. A zero-energy state will be achieved before a worker enters a danger zone. No entry of a danger zone is permitted without a proper shutdown and/or lockout.

Procedures:

Responsibilities

The supervisor will train all workers in this lockout policy and appropriate procedure(s) when hired or any time a worker transfers to another job. Workers will also be shown where to find the main power sources to properly lock out the equipment, be provided with or made aware of the location of locks and related lockout equipment and must demonstrate a proper lockout.

Supervisor is responsible for checking that lockouts are done properly.

Each worker will be responsible for following all established lockout procedures at all times.

Lockout violations are subject to disciplinary action.

General lockout procedures

1. Park equipment on solid level ground by lowering all attachments to the ground or by solidly blocking them in an elevated position. If it is not possible to park on level ground, block machine to prevent movement.
2. Shut down equipment following manufacturer's specifications, apply locking mechanisms, shut off engine and verify that zero-energy state has been achieved.
3. Turn off ignition switch, remove key, keeping it in a secure location, and turn off master switch.
4. Apply lockout tags and engage locking device to ensure that the equipment cannot be inadvertently energized.
5. When work is complete, clean up all tools, replace all guards and ensure no one is in the danger area.
6. Unlock power sources and return to work.

Specific lockout procedures

1. If the engine needs to be running for maintenance purposes, written non-routine lockout procedures must be followed by trained personnel.
2. Lockout tags and locking devices are to be removed only by the person installing these items and only after ensuring that all personnel and equipment are clear of the danger zone.
3. A supervisor or other trained competent person may remove another person's lockout tag and device only after it has been confirmed that this person is not in the danger zone.
4. Machine-specific lockout procedures may be necessary for specific machinery where unique lockout requirements must be met.

Procedure approved: _____ Date: _____

Created: _____ Date: _____

Revised: _____ Date: _____

Procedure for conducting non-routine tasks

All firms conduct non-routine tasks from time to time and must ensure that the procedure for performing these tasks is well thought-out and planned to prevent potential injury. The following procedure has been developed to assist in ensuring each job is completed safely and effectively.

1. Define and discuss the job to be done with all workers to be involved.
2. Ensure you have qualified personnel and the right equipment and tools for the job, and determine who is in charge.
3. Get input and agreement from everyone involved.
4. Anticipate possible safety hazards and discuss. Take time to assess.
5. Agree on an action plan and consider timing, weather, darkness, special needs and the sequence of steps.
6. Develop a contingency or back-up plan in case of unexpected problems.
7. Ensure everyone understands the communication procedure. Progress on the job must be constantly monitored to identify problems and corrective actions.
8. Clean and return tools and equipment when the job is completed.
9. Discuss the results with all workers involved to improve the procedure for next time.

Machine guarding policy and procedures

<p>All pieces of equipment, processes and situations that pose a potential hazard to workers are to be properly guarded or barricaded to prevent exposure to the hazard.</p> <p>Proper lockout and entry procedures are to followed when entering a hazardous area where barricades are used to prevent exposure to a hazard.</p> <p>Guards or barricades that must be temporarily removed are to be replaced as soon as the need is over and in all cases prior to starting regular work activities.</p>	<p>Signature:</p>
<p>Implementation Date:</p>	<p>Review Date:</p>

PROCEDURES AND RESPONSIBILITIES

Requirement	Workplace Documentation and Requirements	Person(s) Responsible
1. All hazardous equipment, situations and processes requiring guards or barricades are to be assessed and classified. All guards are to be maintained in place at all times.		
2. Required guards or barricades are to be installed in a priority sequence. Interim measures must be taken to protect workers where guarding hazards exist.		
3. Affected workers and supervisors are to be trained in guarding requirements.		
4. Personnel responsible for the design, construction and maintenance of guards and barricades are to receive appropriate training.		
5. Those performing planned workplace inspections and/or guarding audits are to receive appropriate training.		
6. The guarding policy, procedures and worker familiarity are to be reviewed upon hire and annually by the immediate supervisor.		
7. Contractors are to be aware of the guarding policy.		
8. New or modified equipment is to be evaluated for guarding requirements before being put into service.		
9. Regular guarding audits are to be conducted by supervisor and/or management.		

Workplace Musculoskeletal Disorders (WMSD) policy and procedures

Introduction:

The most common injury in Ontario’s forest industry is no different from what happens in other industrial sectors – gradual damage to muscles, ligaments tendons and nerves as a result of repetitive, forceful or awkward movements. Strain and sprain injuries – also known as workplace musculoskeletal disorders (WMSD) – have accounted for than one-third of all forestry lost-time injuries in recent years. These types of injuries cost. They cost workers – pain and suffering, disruption to home and work life and impact on families, friends and the community. They cost workplaces – loss of productivity and revenue, Ministry of Labour orders, loss of rebates and accumulation of surcharges from Workplace Safety and Insurance Board. Under Ontario’s Occupational Health and Safety Act, employers are required to take every reasonable precaution to protect workers from hazards resulting in strain & sprain injuries. One important way to do this is to recognize, assess, control and monitor workplace hazards that could lead to strain and sprain injuries.

The Ontario Ministry of Labour states that employers, in consultation with workers, are responsible for:

- Ensuring that hazards related to poor design of tools, equipment, workstations or work practices are identified and the risks controlled
- Ensuring that all workers have been provided with adequate equipment required for tasks
- Ensuring that workers have the information, instructions or training in the use of equipment and work practices
- Encouraging and reinforcing proper working techniques
- Encouraging early reporting of an injury or symptoms.

Strains and sprains affect the muscles, tendons, nerves, ligaments and joints in various parts of the body. The key hazards for work-related strains and sprains are the force, posture, repetition and duration involved in performing a particular job or task. Other risk factors, such as stress and workload, may also play an important role.

The following information is intended to promote the internal responsibility system (IRS) by providing some ergonomic tools. Ergonomics is the study of the physical and mental demands of work on individual workers. By analyzing the physical demands of a job and identifying strain and sprain hazards, controls can be put in place to eliminate the hazards.

Workplace Musculoskeletal Disorder (WMSD) Policy:

Review all injury and first aid reports for any WMSD and address as necessary. Susceptible tasks are to be identified and assessed for risks, and effective controls are to be implemented and then evaluated.

Procedure and Responsibilities

Requirement	Workplace Documentation and Requirements	Person(s) Responsible
1. The WMSD prevention policy is communicated to employees.		
2. Review all injury reports for any WMSD consistency and potential trends.		
3. WMSD-susceptible tasks in the workplace are identified. (See checklist on following page.)		
4. WMSD prevention controls are to be assessed for possible implementation.		
5. WMSD prevention controls are to be implemented where practical.		
6. Follow-up for WMSD prevention controls.		

Ergonomic Checklist:

This checklist is designed to help you identify task and equipment factors that can increase a worker’s risk of developing an WMSD. Place a √ in either the “yes”, “no” or “n/a” (not applicable) box.

Job Name:	Date:		
Do the workers on this job:	N/A	Yes:	No:
Lift, lower or carry objects that are, in their opinion, heavy?			
Have difficulties pushing or pulling items/objects?			
Perform tasks that require difficult and forceful gripping with the hands?			
Use tools that require a great deal of effort to hold, control or use?			
Use their hands to pound or hammer things when doing their job?			
Perform any other high force tasks? <i>If yes please indicate:</i>			
Perform tasks with one or both arms behind their body?			
Bend or twist the back/trunk?			
Twist or bend (backward/forward/to the side) the neck?			
Need to bend or twist the wrist?			
Pick up or hold things using difficult grips?			
Perform any other awkward postures that are not covered above? <i>If yes please indicate:</i>			
Have to lift, lower or carry objects repeatedly when doing their job?			
Repeatedly push or pull things when doing their jobs?			
Repeatedly grip or manipulate things with their hands/wrists?			
Repeatedly use awkward arm, hand or wrist postures?			
Repeatedly use poorly designed hand tools when doing their job?			
Repeatedly do tasks or use awkward postures that are not covered above? <i>If yes please indicate:</i>			
Use hand tools that vibrate?			
Are exposed to whole body vibration?			
Have too little space/clearance at their work station or work area?			
Have to stay in awkward postures for a long period of time without change?			
Sit or stand for long periods of time without change in posture?			
Work in cold weather?			
Work in hot and or humid weather?			
Find the job very demanding?			

Common areas to monitor:

Below are some common areas that have been identified as ergonomic hazards. These should also be considered when completing the checklist.

- Not wearing proper-sized gloves to protect hands when working outside in the cold weather
- Not wearing proper anti-vibration gloves to reduce the effects of hand/arm vibration
- Not enough lighting when working in the dark, which can hinder vision and clearance
- Compressed or poorly maintained seats which may increase whole body vibration and lower back and hip pain and discomfort
- Improper use of arm rests which do not allow the operator to reduce some of the strain on the shoulder and elbow joints
- Improper set-up of seat for the individual body type and size

After the checklist is completed:

If there is a ✓ in the “yes” box, this is an area to change, or in some cases monitor, as there is an increased risk to an WMSD.

Once the checklist is completed, it is time to make some recommendations on ergonomic controls. It is a good idea, at this point, to brainstorm some ideas to find if there may be a good way to decrease the risk without significant costs. Brainstorming is a good way to get another point of view on a solution as each person will bring another perspective. After the change is completed, it is recommended that you keep this information on file, as this shows that you are making changes to reduce ergonomic issues.

Once the solution has been implemented, the final step is to ensure that the solution has been successful. It is recommended that you re-evaluate the solution in three months. It is also important to re-evaluate the job or workstation if someone else is performing the work or using that area. This checklist should be completed yearly.

Where to go now?

The information is not intended to solve all problems but to provide some insight into why injuries may be occurring and to help develop effective solutions. In some cases, a professional ergonomist may be needed to review the problem and help solve the issue. The Ontario Forestry Safe Workplace Association has district Consultant Trainers and an Ergonomist who can help firms resolve ergonomic issues.

Cutter/skidder operator program certification summary

Step One – Employer obtains Signing Authority

- Employer must contact local Ministry of Training Colleges and Universities (MTCU) office to obtain Signing Authority (Check the blue pages of your phone book under ‘Training’ for the nearest MTCU office).

Step Two – Worker completes common core classroom training

- Worker or potential worker completes 1.5-day Professional Chainsaw Operator (PCO) program and/or half-day Professional Cable Skidder Operator (PCS) program prior to working as a cutter and/or skidder operator in a logging operation. Classroom instruction must be provided by an approved trainer/evaluator (list of approved trainer/evaluators is available from local MTCU offices).
- Worker/trainee gets Record of Training and submits to the employer.
- This training will need to be retaken after one year if the person has not registered as a cutter and/or skidder operator.

Step Three – Employer registers and initiates training for worker

- Employer registers worker with MTCU by submitting the *Modular Training Application*.
- Note: The above step must be completed prior to the worker operating designated equipment in a logging operation.
- Worker can now begin on-the-job training with a certified/accredited Cutter and/or Skidder Operator or competent supervisor.
- Worker completes training, evaluation and certification within one year.

Step Four – Worker certification process

- When the employer is satisfied that the worker is properly trained to the program standards, the supervisor and trainee sign the Modular Training Booklet.
- The employer arranges for the worker to be evaluated by a certified evaluator who conducts the on-site evaluation based on the MTCU on-the-job training standards in the Modular Training Booklet.
- If the certified evaluator is satisfied that the worker has competently demonstrated his/her skills, abilities and knowledge to operate the specific equipment, the signing authority signs the MTCU *Modular Training Report Form*. The employer then forwards this form to MTCU.
- If the certified evaluator is not satisfied with the worker’s abilities, he/she will indicate what the problems are to the employer. Additional practice, on-the-job training or classroom training will be required. A future evaluation is scheduled with the certified evaluator.
- The worker will receive a wallet card upon successful completion of the Cutter and/or Skidder Operator program certification requirements.

Note:

- For more information on the process refer to the program guidelines available through your local MTCU office or check the OFSWA website <http://www.ofswa.on.ca/qa.htm>
- *Italicized* documentation must be completed by the employer and submitted to MTCU

www.ofswa.on.ca info@ofswa.on.ca

**690 McKeown Avenue
P.O. Box 2050 Station Main
North Bay, Ontario P1B 9P1
Tel: (705) 474-7233 Fax: (705) 474-4530**