

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Oregon State Office  
P.O. Box 2965  
Portland, OR 97208

**In Reply Refer to:**  
1112 (OR-950) P  
Manual 1112-1

July 17, 2003

EMS TRANSMISSION 07/21/2003  
Instruction Memorandum No. OR-2003-097  
Expires: 9/30/2004

To: DMs, DSDs, Staff and Branch Chiefs

From: State Director

Subject: Oregon/Washington Chainsaw Operator Training and  
Certification Policy

DD: September 30, 2003

**Program Area:** Safety and Occupational Health

**Purpose:** To update requirements and procedures for Bureau of Land Management (BLM) employees who use chainsaws to accomplish field work. To ensure the safe operation of chainsaws during brushing, thinning, or live tree and snag felling, specific training and formal skill certification is required for all sawyers. This policy outlines qualifications and required training for sawyers at each level - A, B and C as well as the C Certifier level. Certification and recertification requirements are specified. The policy also lists appropriate personal protective equipment (PPE) that must be used during all chainsaw operations. Safety requirements for live tree and snag felling are included in Appendix 2.

**Policy/Action:** In order to provide for the safe operation of chainsaws, the following initiatives will be implemented. (Reference attachment (1) for specific policy requirements.)

1. The Oregon/Washington (OR/WA) BLM State Certification Coordinator is responsible for management, coordination, facilitation and monitoring of the program. The coordinator is also responsible to arrange for annual training opportunities for sawyers and to provide administrative support for the program.
2. Each District Manager will identify a chainsaw program coordinator/lead to be responsible for management, coordination and facilitation of the OR/WA BLM Chainsaw Program at the field level. This individual annually reviews training needs for chainsaw users and forwards this information to the State Certification Coordinator.

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3. Each District Manager will forward the name of the District Chainsaw Program Coordinator/Lead to the State Certification Coordinator (Peggy Tribble) by September 30, 2003.
  4. Supervisors will ensure that all employees are properly trained and certified prior to chainsaw use. All required personal protective equipment will be provided. A Job Hazard Analysis (JHA) will be developed for each sawyer. Opportunities for training and certification occur annually.

5. Chainsaw operators will comply with all requirements of this policy.

**Timeframe:** Immediately

**Background:** The OR/WA BLM has a chainsaw operator policy initially established in FY 2001. This policy updates training and certification requirements and includes new certification cards and certificates. BLM employees who are certified under this policy will be recognized under the United States Forest Service Region 6/PNW Chainsaw Operator Policy as qualified and certified to perform as chainsaw operators commensurate with their skill level.

**Manual/Handbook Sections Affected:** Supplement to the BLM Manual Handbook 1112-1 Safety and Health Management

**Coordination:** Safety and Health

**Contact:** Peggy Tribble, Oregon State Office Safety Manager at 503-808-6202.

**Districts with Unions** are reminded to notify their unions of this IM and satisfy any bargaining obligations before implementation. Your servicing Human Resources Office or Labor Relations Specialist can provide you assistance in this matter.

Signed by  
Harold J. Belisle  
Acting Associate State Director

Authenticated by  
Mary O'Leary  
Management Assistant

1 Attachment(s)

1 - [OR/WA Chainsaw Operator Training and Certification Policy](#) (24 pp)

Distribution

WO-740



# OR/WA SUPPLEMENT TO BLM HANDBOOK 1112-1 CHAPTER 5 – TRAINING



## 5.9 CHAINSAW OPERATOR TRAINING AND CERTIFICATION POLICY

### **5.9.1 POLICY STATEMENT**

A. All Oregon/Washington BLM employees, volunteers, and/or students who are required to operate chainsaws within the scope of their duties will be fully trained and certified at the appropriate skill level. Employees who have not met the requirements of this policy shall not operate chainsaws EXCEPT for training purposes and only then under the direct supervision of an individual approved, in writing, by a District/OSO Chainsaw Certification Coordinator. A Risk Assessment or Job Hazard analysis must be completed prior to the use of chainsaws, whether in the field or in training.

B. This intent of this policy is not to encourage regular participation by BLM employees in large-scale, complex falling activities. Rather, it is to provide, through proper training and certification, for the safety of all employees who may use chainsaws and/or fall trees on a limited or occasional basis.

### **5.9.2 PURPOSE**

It is recognized that employee chainsaw operation is hazardous. However, it is an essential activity required to accomplishing the Bureau's mission in natural resource management. The purpose of this policy is to provide guidelines for the safety of BLM employees who operate chainsaws in the performance of their duties. This policy complies with all applicable sections of the Occupational Safety and Health Administration (OSHA) regulations, 29 CFR 1910.266, Subpart R – Special Industries - Logging Operations. (*Appendix 1*)

### **5.9.3 SCOPE**

A. All Oregon/Washington BLM personnel who operate chainsaws in performance of their duties are required to meet the standards set forth in this policy.

B. These standards meet or exceed the Interagency Wildfire Qualifications as established through the National Wildfire Coordinating Group (NWCG).



C. Oregon/Washington BLM employees who are certified under this policy will be recognized under the US Forest Service Region 6 Chainsaw Operator Policy as qualified and certified to perform as a chainsaw operator commensurate with their skill level. The OR/WA BLM will, in turn, recognize all U.S. Forest Service employees trained and certified under their policy to be qualified to perform chainsaw operations.

#### **5.9.4 RESPONSIBILITIES**

A. Several levels of responsibility exist, all being necessary to ensure safe and effective operation of chainsaws by BLM employees.

1. State Director

The State Director is responsible for issuing policy and providing for staff support and resources necessary to implement policy requirements.

2. District Manager/Deputy State Director

This individual is responsible for ensuring compliance with the state policy and issuing additional policy if local conditions warrant. The DM/DSD selects a District/OSO Chainsaw Certification Coordinator and demonstrates a commitment to training/certification requirements.

3. Field Office Manager/Division Chief

The Field Office Manager is responsible for implementation of state and district policy at the Field Office or Division level. This individual has the ultimate authority in determining which employees will be trained and certified as chainsaw operators and to what class of certification. The Manager/Chief is also responsible to forward training/certification requests from first-line supervisors to the District/OSO Certification Coordinator.

4. First-line Work Supervisor

The work supervisor is responsible to ensure that all chainsaw operators are provided with proper personal protective equipment (PPE) and are trained and certified for the tasks they are expected to perform. The supervisor is also responsible to develop a Job Hazard Analysis with each operator and to closely monitor operator performance. Requests for chainsaw operator training/certification are forwarded to the Field Office Manager.

5. Chainsaw Operators



All chainsaw operators are responsible to wear and maintain their personal protective equipment (PPE) and operate chainsaws **only** within the scope of their duties and certification level. The ultimate responsibility for personal safety rests with the employee. All operators have the right to refuse an assigned task which they deem to be beyond their ability or certification level.

6. District/Field Office/OSO Sawyer Certifier/Instructor

a. The Certifier/Instructor is responsible for ensuring all chainsaw operators are certified at a level commensurate with their demonstrated ability as described in this policy. The certifier is authorized to impose time, project, or size limitations and also has the authority to revoke certification of an individual chainsaw operator at any time for cause.

b. This individual **must** be currently certified as a Class C Advanced Sawyer and be further trained through the formal OR/WA BLM Chainsaw Operator Certification program to organize and conduct the classroom and field training sessions. Certifiers must demonstrate good communication skills and the ability to relate critical training concepts to others. Current knowledge of policy and regulations pertaining to chainsaws and related equipment is required.

c. The Certification Instructor is authorized to certify/recertify Class A&B chainsaw operators (Apprentice and Intermediate).

7. District/OSO Certification Coordinator

This individual is responsible for management, coordination and facilitation of the OR/WA BLM Chainsaw Program at the field level. The district coordinator serves as a point of contact for the State BLM Chainsaw Program Certification Coordinator in administration of the Program. The State Coordinator will provide administrative support for the Districts in record keeping, issuance of certification cards, and in facilitation of the exchange of information between certifiers. The District Manager in concert with the District Safety Manager will select the district coordinator.

8. OR/WA BLM State Certification Coordinator

This individual is responsible for management, coordination, facilitation and monitoring of the OR/WA BLM Chainsaw Program. The Certification Coordinator is also responsible to arrange for annual training



opportunities for certifiers and to provide administrative support for the program. The State Certification Coordinator will be selected by the OR/WA BLM State Director and receive guidance from the State Safety Manager.



### **5.9.5 EQUIPMENT AND SAFETY REQUIREMENTS**

A. Operators are required to wear appropriate personal protective equipment (PPE) while operating chainsaws. Each chainsaw placed into service must be equipped with a chain brake and must otherwise meet the requirements of *ANSI B175.1-1991 Safety Requirements for Gasoline-Powered Chainsaws* as well as the requirements of this policy. All PPE will meet safety standards as set by the American National Standards Institute (ANSI), Occupational Safety and Health Administration (OSHA), and the Bureau of Land Management (BLM).

B. The following is a list of minimum PPE required for chainsaw operators:

1. Hardhat
2. Eye protection
3. Hearing protection (specific for chainsaw operations)
4. Gloves (cut resistant for chain filing)
5. Chainsaw chaps (chaps should overlap boots at least 2 inches)
6. Non-skid boots (lug soles or caulks) with a minimum of 8-inch tops
7. Appropriate field attire (long-sleeved shirt, etc.)

C. All chainsaws, axes and wedges used by BLM employees will meet or exceed applicable safety standards.

D. Minimum safety requirement for live tree and snag felling may be referenced in Appendix 2.



## 5.9.6 CERTIFICATION

A. **All** operators will be certified in accordance with the OR/WA BLM or the US Forest Service Region 6 Chainsaw Certification Policy. Certification records will be kept as part of the employee's personnel file. In addition, certification levels will be recorded in the Fire Qualification System (FQS) as appropriate. Cards and certificates, commensurate with each level, will be provided to all operators. (*Illustration 1 and 2*)

B. Class A Apprentice Sawyers and Class B Intermediate Sawyers may certify at the next applicable level at any time before their current recertification is due. First-line supervisors will forward requests for employee certification class advancement to the appropriate Field Office Manager/Division Chief depending on project need. Field Office Managers/Division Chiefs should forward these requests to the District/OSO Chainsaw Certification Coordinator in advance so that adequate time is allowed to conduct training and certification. All operators will be certified by a qualified certification instructor according to the *proficiency level* exhibited by the trainee.

### 1. **Class A – Apprentice Sawyer**

a. Employees certified at this level are required to complete a nationally recognized course such as the National Wildfire Coordinating Group Course (NWCG) S-212 – Wildfire Chainsaws, including the field exercises, or those portions of the program that are appropriate for Class A Sawyer duties; the Falling and Bucking Training Standard, produced by the Workers' Compensation Board of British Columbia; or, a comparable classroom course for chainsaw operations. Additionally, each operator is to satisfactorily complete a field exam under the supervision of a qualified certifier. Class A certification is primarily limited to brushing, bucking and felling in the least complex situations. The size of material to be cut shall be limited to a diameter of eight inches or less.

b. Initial classroom instruction shall typically last six to eight hours. The certifier shall introduce and review BLM policy and procedures, proper maintenance and care of the chainsaw, proper chainsaw technique (brushing, bucking and felling), and the use and care of required PPE.

c. The field portion of the certification process shall be under the guidance and supervision of an instructor/certifier. The session shall focus on hands-on chainsaw operation in the practices of felling, brush cutting, and bucking of material.



d. Upon completion, the students will be required to successfully complete a written examination and a field test in order to obtain certification. The certifier may modify the certification requirements at the request of the operator's supervisor to meet specific work requirements. The certified, based on the trainee's previous experience and the field examination, will determine if additional field training is required.

## **2. Class B – Intermediate Sawyer**

a. Employees certified at this level are required to complete a nationally recognized course such as the National Wildfire Coordinating Group Course (NWCG) S-212 – Wildfire Chainsaws, including the field exercises; the Falling and Bucking Training Standard, produced by the Workers' Compensation Board of British Columbia; or, a comparable classroom course for chainsaw operations. Additionally, sawyers are to satisfactorily complete a field exam under supervision of a qualified instructor/certifier. (See 4. Class C – Sawyer Instructor/Certifier below) Class B Intermediate Sawyer certification is limited to brushing, bucking and felling material twenty-four inches and less in diameter.

b. Initial classroom instruction shall typically last six to eight hours. The certifier shall introduce and review BLM policy and procedures, proper maintenance and care of the chainsaw, proper chainsaw technique (brushing, bucking and felling), and the use and care of required PPE.

c. The field portion of the certification process shall be under the guidance and supervision of a certifier. The session will focus on the hands-on chainsaw operation in the practices of felling, brush cutting, and bucking of material not to exceed twenty-four inches in diameter.

d. At the end of the course, the students shall be required to complete a written examination and a field test to obtain certification as a Class B Intermediate Sawyer. The certifier may modify the certification requirements at the request of the operator's supervisor to meet specific work applications. The certifier, based on the trainee's previous experience and the field examination, will determine if additional field training is required.

## **3. Class C – Advanced Sawyer**

a. Employees certified at this level are required to complete a nationally recognized course, such as the National Wildfire Coordinating Group Course (NWCG) S-212 – Wildfire Chainsaws (advanced) including the field exercises; the Falling and Bucking Training Standard, produced by the Workers' Compensation Board of British Columbia; or, a comparable classroom



course for chainsaw operations. Class C Advanced Sawyer certification includes a working ability in felling, bucking, and brushing of materials that may exceed twenty-four inches in diameter. Operators certified at this level of proficiency are expected to handle complex sawing and felling operations, including fire line construction.

b. Classroom instruction shall last six to eight hours. The certifier shall introduce and review BLM policy and procedures, proper maintenance and care of the chainsaw, proper chainsaw technique (brushing, bucking and felling), and the use and care of applicable PPE.

c. The field portion of the certification shall focus on hands-on operation of chainsaws in the practice of complex brushing, bucking, and felling activities. Tree diameter may exceed twenty-four inches. At the end of the course, the students shall be required to complete a written examination and a field test to obtain certification as a Class C Advanced Sawyer. The certifier may make modifications to the certification requirements to meet specific work applications.

#### **4. Class C – Sawyer Instructor/Certifier**

a. This individual must maintain a Class C Advanced Sawyer certification and be trained through a formal OR/WA BLM, or, a US Forest Service Chainsaw Training program designed to review instructional techniques in conducting field certification sessions. This training can be accomplished during the annual chainsaw training and certification program. A field exam must be successfully completed. The certifier must also demonstrate good communication skills and the ability to relate important training concepts to trainees. Current knowledge of policy and regulations pertaining to chainsaw use and the use of related equipment is required.

b. The field portion of the certification process will be completed under the guidance and supervision of the OR/WA BLM Certification Coordinator, or, the US Forest Service Region 6 Chainsaw Certification Coordinator and a person identified as an independent (contracted) professional faller. The field portion of the certification process will include hands-on operation of chainsaws.

#### **5.9.7 RE-CERTIFICATION**

A. Class A and B Sawyers will re-certify each three years prior to field season. Recertification for Class C Advanced Sawyer and Sawyer Instructor/Certifier is also valid for three years. This policy differs from the *Region 6 Forest Service Chainsaw Certification/Recertification Policy (FSH 6709.11 – Safety and Health Code Handbook)* in that the Forest Service



requires annual recertification for A & B sawyers and bi-annual requirements for C-level sawyers. Recertification accomplished by personnel from either agency will be honored by the employee's home agency. Sawyers will perform duties under the recertification requirements in effect at the home agency at the time they recertify. It is intended that this agreement will serve to eliminate any confusion between the two agency policies as well as to increase attention to safe procedures and methods for sawyer work. (Additional information may be referenced in the *Standards for Fire and Aviation Operations 2002 – BLM Handbook 9213-1 [Chapter 5-8]* for minimum qualifications and certification process for BLM Chainsaw Operators and Fallers on incidents. Note that these standards require annual refresher/recertification training for operators and fallers.)

1. Re-certification for Class A/B will consist of a minimum of two hours classroom review and four hours of field-testing exercises under the supervision of a Sawyer Instructor/Certifier, or, through the annual recertification training opportunities as scheduled by the OR/WA BLM Certification Coordinator.

2. Re-certification for Class C Advanced Sawyer and Sawyer Instructor/Certifier will be a minimum of a one-day class, which will include classroom review and field-testing exercises. A two-day class schedule is encouraged to provide sawyers with sufficient field training experience. This class will be under the guidance of the OR/WA BLM Certification Coordinator who will arrange for training opportunities. A Region 6 Forest Service or a BLM Lead Chainsaw Program Instructor and an outside Professional Faller, both with demonstrated instructor skills, will conduct this training.

B. It is recognized that a diameter limit need not be the only measure of an employee's skill when engaging in falling and bucking activities. Emphasis is also placed on knowledge and demonstrated ability. The refresher training shall include but not be limited to the following areas:

1. General Safety
2. Equipment and Standards
3. Educational Resources and Materials
4. Field Exercises
5. Fire Line Construction Techniques
6. Eastside/Westside BLM environmental or topographical concerns



# Appendix 1



# OSHA REFERENCE CHECKLIST For Chainsaw Operations

**Subpart R – Special Industries**  
**29CFR 1910.261**  
**Logging Operations 1910.266**

**Page 1**

## Personal Equipment Checklist [29CFR 1910.266(d) and 1910.95]

Hard Hat	[(d)(1)(vi)]
Eye/Face Protection	[(d)(1)(vii)]
Hearing Protection	[1910.95]
Foot Protection	[(d)(1)(v)]
Hand Protection (wire rope)	[(d)(1)(iii)]
Leg Protection	[(d)(1)(iv)]
First Aid Kits	[(d)(2)(i)]

## Chainsaw Checklist [29CFR 1910.266(e)(1) and (e)(2)]

Chain Brake	[(e)(2)(i) and (e)(1)(ii)(E)]
Throttle Interlock	[(e)(1)(ii)(H)]
Chain Catcher	[(e)(1)(ii)(H)]
Chain Tension	[(e)(1)(ii)(C)]
Muffler	[(e)(1)(ii)(D)]
Chainsaw Kickback	[(e)(2)(i)]
Chain Sharpness, cutter shape	
Depth usage setting, lubrication	[(e)(1)(ii)(G)]
Handles, Guards	[(e)(1)(ii)(A)]
Chain Movement/Idle Engine	[(e)(2)(iii)]



## OSHA Reference Checklist for Chainsaw Operations – Page 2

### Required Work Practices [29CFR 1910.266(e)(2)]

Continuous Pressure Throttle	(ii)
Operation/Adjustment	(iii)
Fueling	(iv)
Starting	(v)
Footing/Body Position	(ix)
Clearing of area	(x)
Cutting Stance/Area	(xi)
Transport of Saw	(xii)
Retreat with Saw	(xiii)
Moving with Saw	(xiv)
Starting Methods	(vi)
Chain Brake Engagement	(vii)
Hand Position/Handles	(viii)

### Considerations Prior to Felling

Identification of Hazards in felling area:	[1910.266(h)(2)(i-iv)]
Determination of felling direction/leans	[1910.266(h)(2)(ii)]
Provision of retreat paths to safety	[1910.266(h)(2)(i)]
Determination of hinge size	[1910.266(h)(2)(vi)]
Proper felling methods	(1910.266(h)(2)(v-vii)]



## Appendix 2

### **MINIMUM SAFETY REQUIREMENTS** **FOR** **LIVE TREE AND SNAG FELLING**

#### **Policy Statement**

Oregon/Washington BLM employees are only authorized for live tree and snag felling through the OR/WA Bureau of Land Management Chainsaw Operator Training and Certification Policy. The following safety requirements are required for all BLM live tree and snag felling operations.

#### **Personal Protective Equipment**

The following personal protective equipment shall be used during operations and tree felling and bucking operations:

- ✓ Hardhat
- ✓ Hearing Protection (specific for operations)
- ✓ Eye Protection
- ✓ Gloves (cut resistant for chain filing)
- ✓ Long-sleeved shirt (optional for crosscut saw)
- ✓ Chaps (chaps should overlap boots at least 2 inches)
- ✓ Non-skid boots (lug soles or caulks) with a minimum of 8-inch tops
- ✓ Appropriate field attire (Reference BLM Manual Handbook 1112-2)

#### **Operation Equipment**

The following equipment shall be available for use during all operations and tree felling and bucking procedures:

- A. A saw of the proper size and bar length for the assigned task which meets the requirements of ANSI B175.1-1991, Safety Requirements for Gasoline-Powered Saws (a full wrap handlebar is recommended for felling activities)
- B. All saws must be maintained in a serviceable condition and be equipped with an approved chain brake, spark arresting muffler, anti-vibration handle, and a positive shut-off switch
- C. A wrench and saw file with handle and guard
- D. An approved safety container for carrying gas and bar oil (clearly labeled)
- E. A minimum of two wedges of proper size and a single bit ax or maul
- F. A portable fire extinguisher of the size and type required by the state forest fire prevention rule



- G. A first-aid kit adequate for serious cuts or trauma situations
- H. A safety whistle carried by the operator

### **Situational Awareness and Safety Considerations in the Cutting Area**

Employees contemplating any felling assignment must analyze each job by considering the following:

#### A. Location of people, structures, and power lines:

- Evaluate the situation to determine if spotters should be used.
- Ensure that the felling operation does not endanger nearby workers. Employees shall be spaced and the duties of each employee must be organized so the actions of one employee will not create a hazard for any other employee.
- Do not allow workers who are *not* in the felling crew to proceed closer than two and one-half (2.5) times the height of the tree(s) being felled.
- Have workers and felling crews working on the same contour, rather than some working above others on steep hillsides.
- If a tree to be cut is near a power line, electrical utility authorities must de-energize the line. Keep personnel clear until it is safe to proceed.
- Ensure that adjacent structures will not be damaged during felling operations.

#### B. Terrain, Roadways, and Felling Conditions:

- Ensure that adequate traffic control measures are in place when felling or bucking across or alongside roads. Maintain two and one-half (2.5) times the tree height of the tree(s) being felled between the sawyer and all personnel and vehicles.
- Consider the topography and steepness of the ground slope.
- Analyze the area for nearby hazards (e.g., trees, low-hanging and dead limbs, rocks, and brush)
- Consider wind direction and velocity
- Analyze all trees: determine diameter, height, lean and limb distribution. Check for lopsided crowns. Identify widow makers.
- Consider the soundness of the tree (e.g., split, lightning struck, broken top, rotted areas, deterioration or physical damage to the root system, trunk, stem, limbs, or bark) Bore the tree if necessary.
- Never work under loose debris.
- Determine if tree has spiked, forked or burning top.
- Consider moisture content (rain, snow or ice).



- C. Observers and Spotters: No employee shall approach a sawyer closer than two and one-half (2.5) times the height of the trees being felled until the sawyer has acknowledged that it is safe to do so; or, unless it is demonstrated that a team of sawyers is necessary to fell a particular tree manually. The lead sawyer will determine if spotters are needed during tree felling operations.
- D. Obscured Vision: The falling, driving, wedging or hand pushing of standing or leaning snags is extremely hazardous and is prohibited when inadequate light or darkness impairs visual inspection.
- E. Adverse Weather Conditions: Never start or continue to fell trees during high winds, electrical storms or when heavy fog, low clouds, or smoke obscures treetops.

### **Primary and Secondary Escape Routes, Safe Zones, and Alternates**

Escape routes are predetermined paths taken by the sawyer once the tree is committed to fall or is committed to the bucking cut. Sawyers must select and prepare the work area by clearing a primary escape path as well as an alternate route before starting the cut. When felling a tree, sawyers must be aware that the quadrant opposite the planned fall of the tree is extremely dangerous. Sawyers are to choose an escape path that extends diagonally away from the expected felling line and always have an alternate retreat path to a safe zone.

Sawyers must walk out and thoroughly check the intended lay or bed of the tree. Look for dead tree tops, missing tree tops, widow makers, snags, and ground debris that may cause kickbacks, rolling, or may result in another tree or limb becoming a hazard.

Sawyers should carefully **plan** the route from the stump to the safe zone. (Usually the route is not less than twenty [20] feet away, although a greater distance is preferred.) If possible, sawyers are to stand behind another tree, preferably quartering back from the planned direction of fall and wait and watch for at least half a minute after the tree hits the ground for whiplash branches and the scatter of broken tree parts. The shielding tree should be sound and of sufficient size to provide protection to the sawyer.

Sawyers should never cross behind the falling tree to reach the safe zone. Exit should always be from the side being cut. The saw should be carried for one or two steps before being set down as the sawyer continues to the safe zone. (It is not necessary to stop the saw at this time. This action will place the saw in a safer location away from the stump of the falling tree but will not jeopardize the



safe retreat of the faller.)

## **Handling Techniques**

### A. Carrying the Saw.

- The saw should be carried in such a way as to prevent body contact with chain, muffler, or bucking spikes.
- When carrying the saw on the shoulder, in the off position, extra care must be taken due to the sharpness of the chain and “dogs.” Long sleeved shirt, gloves, and a shoulder pad should be worn. The bar and chain should be covered. Use of a manufactured bar and chain guard is recommended.
- The saw shall be at idle speed and chain brake activated when carried short distances.
- The saw should be shut down when being carried for a distance greater than simply from tree to tree. Shut down is also recommended in hazardous conditions such as slippery ground or areas of heavy underbrush, and, in all cases if carried more than fifty feet.

### B. Starting/Operating the Saw. The methods to safely start and operate a chainsaw vary with the model and size of the saw.

- A secure grip is to be maintained on the saw at all times, ensuring that the thumb is wrapped around the handle bar.
- The saw should always be started with the chain brake engaged.
- The saw should always be started on the ground or with the bar extended over a solid object (stump or log). The sawyer must ensure that the tip of the bar is not in contact with any object. This situation will cause a kickback.
- The “*drop start*” method of starting a saw should not be used.
- Generally it is better not to throttle down before the cut has been completed. This depends on the size of the tree, the lean, and the progress of the cut.
- In general, cutting with the power head positioned between the waist and shoulders should always be considered “a danger zone.” Cutting with the power head positioned above shoulder height is not recommended. However, the following exceptions may apply: (1) while holding the saw and standing flat footed, the best control for the sawyer is with the knees slightly bent and the arms out in front and down slightly. This stance will place the power head of the saw slightly above the waist; and, (2) when cutting big timber on steep ground, it may, at times, be necessary to hold the saw up as high as feasible to complete the face cut.



C. Fueling the Saw. An area of bare ground should be selected for storing fuel and oil.

- If the saw is hot, allow it to cool before refueling.
- Fill tank on bare ground or other noncombustible surface.
- Refuel outdoors and at least 20 feet (6 m) from open flame or other sources of ignition
- Start the saw at least 10 feet (3 m) from the fueling area.

### **Felling, Bucking, Brushing and “Limbing” Techniques**

A. Felling

- Ensure the saw has a sharp chain and sufficient fuel to completely fell the tree.
- Establish firm footing.
- Determine lean of the tree using equipment such as a straight handled hatchet, axe, or plumb bob. Recheck primary and secondary escape routes.
- Fell problem trees or snags first.
- All trees exceeding eight inches diameter breast height (dbh) must be undercut before making the back cut.
- Inspect the tree for dead top, loose bark, limbs, split tops, and other leaning or hanging debris. Use a hatchet or an axe to sound completely around the trunk of the tree to check for rot. (This procedure is especially important for large trees). Remove the bark from snags.
- Be alert for other trees and tops that may fall when hit by the tree being felled.
- Undercut and back cut all trees at a safe standing height.
- Never trust “*holding wood*” in partly rotted trees. Consider all snags as rotten.
- Do not make any side or corner cuts in hollow trees or trees with heart rot unless an adequate hinge of holding wood can be maintained.
- Make the proper face/undercut with the opening large enough to control the tree nearly to the ground. The undercut should be one-quarter to one-third of the diameter of the tree. The opening should be at least one-third of its depth (one inch vertical for every three inches horizontal).
- Ensure sloping/horizontal cuts do not cross one another. Ensuring that a “*Dutchman*” is not created.



- Make the downhill or offside cut first.
- Before starting the back cut, the saw should be shut off and a warning given to nearby crews.
- Begin the back cut, ensuring that an appropriate amount of stump shot is established according to the size of the tree. Insert wedges into the “kerf” as soon as practical. (Wedges may not be needed if the tree has a definite lean in the direction of the planned fall.)
- Continue cutting until the desired amount of wood holds the tree. Do not cut off the hinge wood.
- Always watch the top of the tree throughout the felling operation.
- Before completing the cut, stop and idle the saw, shout warnings twice (or use mechanical signal devices such as whistles or horns) to alert nearby crews.
- As tree lift begins, check the direction of the fall. Proceed along the predetermined escape path to the safe zone. Remain alert for falling debris and kickback.
- Never leave a tree partially cut unless the job is unsafe to complete. Always finish the felling job before leaving for break, lunch, or at the end of the day or shift.
- Never climb a lodged tree. Notify nearby workers and your immediate supervisor of the hazard.
- Whenever possible, pull the lodged tree down by tractor, winch, or other mechanical means.
- Consider all options including marking the hazard and reporting it to your supervisor. Do not hesitate to reevaluate the situation.
- Before returning to work on the felled tree, check all snags and adjacent trees for broken limbs, log chunks, loose bark, and overhead hazards.

#### B. Bucking, Brushing, and “Limbing”:

- Never buck a tree that is considered unusually dangerous.
- Consider all bucking hazards (including those overhead)
- Anticipate log reaction when the tree is severed.
- Select bucking cut location very carefully.
- Be aware of other logs, branches, or rocks immediately behind the area where you are bucking, brushing, or “limbing” for possible kickback potential and rocking of the chain.
- Touching any object with the tip of the chain and bar can cause a kickback. Know where the tip of the bar is at all times.
- Remove limbs and brush before bucking.
- When topping, brushing, or “limbing,” be cautious about any tree held off the ground by branches. To prevent rolling, do not cut limbs or



branches that support the tree off the ground. If possible walk on top of large downed logs while “*limbing*” to prevent rolling hazards.

- Be aware of side, top, bottom, and internal bind possibilities due to natural unevenness of the ground and other trees, stumps, windfalls, and rocks.
- Initiate bucking slowly; observe kerfs closely to determine the bind.
- Use wedges to prevent pinching the bar.
- Cut a sapling (spring poles) or branch that is bound down only when it is necessary for safety, as unintentional severing may cause serious hazards. Initiate a series of small cuts on the decompressed side of the sapling or branch to release the bind.
- Completely saw off log chunks; finish the buck.
- When bucking trees on sloping ground, use blocking devices that prevent bucked sections from rolling or sliding. Always work from the uphill side.
- Buck windfalls only after examining each tree to be cut for strains, breaks, binds, and the chance of root wads falling, rolling, or setting upright when the weight of the tree is removed. Be aware of trees that are underneath the one being bucked. Assume that these trees are under pressure and could move in any direction when the overhead weight is cut or removed.
- When using chainsaws for brushing of fire lines, survey lines, etc., crewmembers should maintain a minimum of twenty (20) feet between themselves and the sawyers.

### **Significant Hazards**

Trees with undercuts or back cuts must not be left standing if at all possible. Where a lodged tree or hazardous situation must be left unattended due to safety considerations, the hazardous area must be distinctly marked with approved hazard identification ribbon.

### **Explosives**

The use of a blaster who is currently certified specifically for tree felling with explosives may be considered as an alternative to chainsaw felling operations.



## **QUICK REFERENCE GUIDE FOR TREE FELLING SAFETY**

- ✓ A secure felling area, a minimum of two and one-half (2.5) times the height of the material being felled, must be established in all directions, and be maintained by the faller during all tree felling operations. An additional secure area should be established on the entire downhill side on slopes where material can roll for long, unpredictable distances.
- ✓ No one shall be permitted in the secured felling area during tree felling operations without the express authorization of the faller.
- ✓ The faller shall establish a safety zone outside the secured area, and ensure that EVERYONE remains there until ALL FELLING is completed and an “all clear” signal has been communicated.
- ✓ The faller shall establish “lookout(s).” These individuals shall have reliable communications with the faller as well as with the individuals in the safety zone to ensure no one enters the secured felling area during operation activities.
- ✓ “Lookouts” shall be directed by the faller to remain at all major access points on roads and trails that may afford unauthorized access routes to the identified secured felling area. Positive communication must be established and maintained between “lookouts” and the faller at all times during the felling operations.
- ✓ The faller will ensure that no hazards remain in the area, such as hang-ups, unstable logs, or other dangers before approving access to any other individual or prior to leaving the secured area.



# Illustration 5-1

## Chainsaw Certification Cards



**APPRENTICE SAWYER A**  
Name \_\_\_\_\_  
District \_\_\_\_\_

Qualifications: See reverse side. Cardholder is Approved to perform only those tasks signed by qualified instructor/certifier. (3 Year Recertification)

Issue Date \_\_\_\_\_ Expiration Date \_\_\_\_\_  
Instructor's Signature \_\_\_\_\_



**INTERMEDIATE SAWYER B**  
Name \_\_\_\_\_  
District \_\_\_\_\_

Qualifications: See reverse side. Cardholder is Approved to perform only those tasks signed by qualified instructor/certifier. (3 Year Recertification)

Issue Date \_\_\_\_\_ Expiration Date \_\_\_\_\_  
Instructor's Signature \_\_\_\_\_



**ADVANCED SAWYER C**  
Name \_\_\_\_\_  
District \_\_\_\_\_

Qualifications: See reverse side. Cardholder is Approved to perform only those tasks signed by qualified instructor/certifier. (3 Year Recertification)

Issue Date \_\_\_\_\_ Expiration Date \_\_\_\_\_  
Instructor's Signature \_\_\_\_\_



**APPRENTICE SAWYER A**

- General Qualifications
- Must be supervised by B or C sawyer
- May perform work including bucking, limbing, and basic steps in felling.
- Comments/Restrictions: \_\_\_\_\_  
\_\_\_\_\_

**INTERMEDIATE SAWYER B**

	Certifier's Signature	Date
<input type="checkbox"/> Wildfire Qualified	_____	_____
<input type="checkbox"/> Gen. Sawyer (<24" dbh)	_____	_____
<input type="checkbox"/> Thinning (<8" ave dbh)	_____	_____
<input type="checkbox"/> Bucking	_____	_____
<input type="checkbox"/> Limbing	_____	_____
<input type="checkbox"/> Other	_____	_____
<input type="checkbox"/> Classroom	_____	_____
<input type="checkbox"/> Comments/Restrictions:		
	_____	_____
	_____	_____

**ADVANCED SAWYER INSTRUCTOR/CERTIFIER C**

- Qualified for all levels of complex felling, bucking and brushing activities. Materials may exceed 24" dbh.
- Qualified to Instruct and Certify Level A & B Sawyers.
- Classroom/Field exam completed.
- Comments: \_\_\_\_\_  
\_\_\_\_\_



# Illustration 5-2

## Microsoft Power Point Presentation – Completion Slide Format

**CHAIN SAW AND CROSSCUT SAW TRAINING**

***Apprentice Sawyer Certification***

*is awarded to:*

(Insert Name Here)

*For successful completion of training and field certification.*

  *OR/WA BLM and US Forest Service  
Chainsaw Certification Program*

\_\_\_\_\_

*Instructor/Certifier*                      *Date*

**CHAIN SAW AND CROSSCUT SAW TRAINING**

***Intermediate Sawyer Certification***

*is awarded to:*

(Insert Name Here)

*For successful completion of training and field certification.*

  *OR/WA BLM and US Forest Service  
Chainsaw Certification Program*

\_\_\_\_\_

*Instructor/Certifier*                      *Date*



**CHAIN SAW AND CROSSCUT SAW  
TRAINING**

***Apprentice Sawyer Certification***

*is awarded to:*

(Insert Name Here)

*For successful completion of training and field certification.*



*OR/WA BLM and US Forest Service  
Chainsaw Certification Program*

\_\_\_\_\_  
*Instructor/Certifier*

\_\_\_\_\_  
*Date*

