



ANNEX A – STATEMENT OF WORK

TYPE 2 SUSTAINED ACTION WILDLAND FIREFIGHTING PERSONNEL FOR PARKS CANADA FIRE MANAGEMENT

1. Description of Work

Parks Canada requires the provision of wildland firefighting personnel on an as and when requested basis in various National Parks and/or National Historic Site within Alberta, Saskatchewan, British Columbia, Manitoba and the Northwest Territories (see Appendix 2). The Contractor must provide physically fit and fully equipped crews trained to the standards outlined herein and fire ready for Sustained Action and other project work described herein.

2. Scope of Work

- (a) The Contractor must provide fire suppression services and other project work described herein as requested by Parks Canada. The work to be performed includes, but is not limited to, the following:
- i. **Sustained Action Fire Suppression:** The Contractor must perform tactical assignments on fires assigned to the crew, including reporting on work progress, resource status and other important information to the Duty Officer or Incident Commander, or their designates. A thorough knowledge of intermediate fire behaviour, fire suppression tactics, ICS fireline organization, communications, air operations, fire safety and crew utilization is required. All sustained action fire suppression must be based on a written or oral incident action plan. Before any fire is considered out, the Contractor must ensure all hotspots have been extinguished and the fire area has been cold-trailed. On larger fires, mop-up can include extinguishment of the entire fire perimeter to a predetermined distance into the fire as directed by the Parks Canada Representative. Only a Parks Canada Representative can declare a fire extinguished.
 - ii. **Chainsaw Work:** Falling of timber or clearing of brush within the fire area must be limited to vegetation which directly impacts employee safety and fire control operations (including hazardous trees). Removal of vegetation which does not constitute a safety or fire control problem, is not acceptable and considered “excessive”. If Parks Canada deems the Contractor has removed any vegetation, which it deems to be excessive, Parks Canada will notify the Contractor and the Contractor must ensure that further excessive removal does not occur. Failure to comply with such notification and any further situations of excessive vegetation removal may result in action being taken against the Contractor. Such actions may consist of a verbal or written warning, contract termination by default by the Contractor (SACC Manual clause 2010C 21 (2008-05-12) Default by the Contractor) with no minimum payment as outlined in Annex B – Basis of Payment, or legal recourse as outlined in the Canada National Parks Act and Regulations.
 - iii. **Preparation of Fire Breaks:** Hand guard, control line or a combination of the above and/or non-combustible natural fuel breaks or a wet line must contain all fires actioned by the Contractor. Hand guards must be thoroughly brushed out and dug to mineral soil. Such hand guards must be 30cm (1foot) or greater in width. On slopes in excess of 45 percent (45%), the hand guard must be of suitable depth to contain burning debris, which may be rolling downhill.
 - iv. **Pile Burning Operations:** Safe lighting, maintaining, managing and controlling of burn piles. Contractor must ensure that personnel are trained in the safe use of this type of equipment and procedures prior to undertaking the project. All safe work practices must be adhered to when this type of work is undertaken.
 - v. **Manual Labour:** The Contractor can be required to perform other manual labour as requested by Parks Canada which relates to fire management operations.
 - vi. **Hazardous tree assessment and falling:** the contractor must assess and fall hazardous trees for the purposes of maintaining staff safety as part of fire suppression, fire break, or fuel modification work.

Solicitation No.:
5P420-20-0425/A

Amendment No.:
00

Contracting Authority:
Ryan Taylor

Client Reference No.:
n/a

Title:
Type 2 Sustained Action Wildland Firefighting Personnel for Parks Canada Fire Management

Hazard tree assessment and falling work that is associated with maintaining the safety of public areas, and not directly related to fire management is not part of the scope of work of this agreement.

- (b) The Contractor must be able to provide:
 - i. at least three (3) crews between March 15 and October 31 during each term of the Standing Offer. A crew consists of one (1) crew leader and four (4) crew members.
- (c) The following documentation must be submitted to the Parks Canada Representative prior to each call-up:
 - i. Crew Manifest;
 - ii. Vehicle Safety Inspection Certificate; and
 - iii. Cell phone number and satellite phone number for each crew leader and representative.

3. Wildland Firefighting Crew

- (a) The Contractor must provide qualified wildland firefighting crew(s), each consisting of one (1) crew leader and four (4) additional crew members, to work under the direction of Parks Canada Representative as requested during the term of the Standing Offer.
- (b) The Contractor must ensure that each crew member:
 - i. Is at least 18 years of age and is capable of carrying out all duties;
 - ii. Meets and maintains the standards and conditions, as set out in Appendix 1;
 - iii. Meets and maintains a level of fitness proficiency training throughout the term of the Standing Offer;
 - iv. Is equipped to provide the services as indicated herein;
 - v. Is equipped with adequate spare clothing and personal gear to be self-sufficient for a continuous 48 hour period; and
 - vi. Is informed as to the conditions contained herein.
- (c) The wildland firefighting crew leader is considered to be the Contractor's Representative regarding operational activities while the crew is on fire duty for Parks Canada.
- (d) The Contractor must provide a crew manifest to the Parks Canada Representative prior to commencement of the Work. The crew manifest must include, but not be limited to, the following for each individual: name, date of birth, position, list of required and valid training, dress weight, cargo weight, and emergency contact name and number (see Appendix 3).
- (e) The contractor must provide Parks Canada with a written request for any changes in crew members. Parks Canada may require up to 48 hours to approve any planned changes. Payment for such changes will not be made unless and until the new crew member is approved as per Appendix 1.
- (f) The Contractor must ensure the crew(s) it provides to Parks Canada are available for export within 24 hours of a call-up for fire suppression duties within any National Park or National Historic Site in Western and Northern Canada covered by a resulting Standing Offer (see Appendix 2).
- (g) The Contractor must provide a replacement crew leader or crew member acceptable to the Parks Canada Representative within 24 hours of notification of rejection of such crew leader or crew member by the Parks Canada Representative for non-compliance with Appendix 1.
- (h) The Contractor must ensure each crew member is adequately equipped to carry out the Work. Such equipment includes, but is not limited to:
 - i. Coveralls or pant and shirt set that meet Canadian General Standards Board (CGSB)-155.22 standards to fireline work wear (two (2) sets per person – must be free of holes, tears, failed seams and excessive soiling);

- ii. Canadian Standards Association (CSA) approved safety hard hat, footwear suitable for fireline operations with minimum 8 inch (20.3cm) height and non-slip soles;
- iii. Ear protection (Peltor H7 or equivalent);
- iv. Eye protection;
- v. Leather work gloves;
- vi. Rain gear;
- vii. Work boots with good traction and appropriate for the working environment
- viii. Sleeping bags (medium weight); and
- ix. Other personal effects as required.

Parks Canada is to provide crew members with all other required equipment.

- (i) The Contractor must ensure all Personal Protective Equipment (PPE) is worn while performing duties on the fireline.
- (j) The Contractor must ensure that only personal work-related and physical fitness clothing (including running shoes) and gear, personal hygiene articles and a good sleeping bag (medium weight) are on the fireline to a maximum of 65 lbs. (29.5 kg), excluding food, personal protective equipment and fireline equipment (as per the Canadian Interagency Forest Fire Centre (CIFFC) standards).. All clothing must be cotton or wool and not synthetic materials.
- (k) All crew members and crew leader(s) provided by the Contractor to perform work under the Standing Offer are considered employees of the Contractor and not employees or agents of the Crown. As such, the Contractor is responsible for the conduct, direction, health and safety and payment of all crew members and crew leader(s).
- (l) The Contractor must ensure all crew members actively participate in improving fire suppression operations by making suggestions to Parks Canada staff while on active fire duty and during post fire meetings.
- (m) The Contractor must ensure all crew members clearly understand and adhere to the standard fire orders, watchout situations and LACES (see Appendix 4).
- (n) The Contractor must ensure all crew members are safety conscious, comply with all regulations, and maintain a good safety record.
- (o) The Contractor is responsible for providing any commissary services.
- (p) The Contractor must ensure that a minimum of two (2) persons on each crew has and maintains a valid class 5 driver's license.

4. Equipment and Supplies

- (a) The Contractor must ensure each crew provided to Parks Canada is equipped with:
 - i. One (1) portable cellular phone AND one (1) portable satellite phone, fully operational for the term of the Standing Offer;
 - ii. Tents of adequate size or number for each crew;
 - iii. A Type 'A' First Aid Kit with supplementary supplies for remote workplaces (contents as per the Canada Occupational Health and Safety Regulations, Part 16.7, Schedules II and III);
 - iv. A chainsaw (min. 16" bar) and related PPE, tools, files, falling wedges, extra chains, and spare parts;
 - v. Hand tools and flat files (two (2) shovels and three three (3) pulaskis);
 - vi. Five (5) water backpacks complete with hand pumps; and
 - vii. Two (2) handheld Global Positioning Satellite devices capable of entering, marking, and storing waypoints (e.g. Garmin).

Solicitation No.:
5P420-20-0425/A

Amendment No.:
00

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Title:
Type 2 Sustained Action Wildland Firefighting Personnel for Parks Canada Fire Management

- (b) The Contractor must ensure all operators of Parks Canada supplied radio communication systems, prior to using any such equipment, know and adhere to the following:
- i. Call sign by which radio will be identified and call sign(s) of station(s) to be called;
 - ii. Operating schedule, if any, to be kept; and
 - iii. Frequencies authorized for use.
- (c) The Contractor must ensure each crew has, at all times throughout the core and extension periods, the minimum equipment and supplies as issued to them at the start of the assignment or any additions as directed by the Parks Canada Representative.
- (d) Where the Contractor is requested by the Parks Canada Representative to supply supplemental equipment (such as hand tools, pumps, etc.) and does so, it will be on the basis of a day-to-day rental agreement. Rental rates will be negotiated at the time the request is made.
- (e) The Contractor is responsible for the care, cleaning, and safekeeping of all equipment, materials and other items assigned by or requisitioned through Parks Canada for use under the Standing Offer. The Contractor is responsible for return of all such loaned items to the appropriate Parks Canada lending facility. Accidental loss or damage to Parks Canada equipment or facilities must be reported to the Parks Canada Representative as soon as practical. The Contractor is responsible for repair or replacement of any equipment so provided which is damaged beyond normal wear and tear or lost. Any equipment replaced by the Contractor must be of a comparable quality and is subject to approval by the Parks Canada Representative.
- (f) The Contractor is responsible for reimbursement of the cost of any expendable supplies (such as PPE, batteries, bug repellent, first aid supplies, etc.) provided by Parks Canada that the Contractor would normally supply.

5. Transportation

- (a) The Contractor is responsible for the upfront cost of transportation for mobilization/demobilization to and from their business address to the point of hire which could be anywhere in any National Park or National Historic Site within Western and Northern Canada covered by a resulting Standing Offer. Mobilization/demobilization costs will be reimbursed as per Annex B – Basis of Payment under the Standing Offer terms and conditions. Parks Canada will be responsible for transportation costs from one National Park/ National Historic Site to another National Park/ National Historic Site as required under a call-up.
- (b) The Contractor must supply and be responsible for transportation including fuel, to, from, and while on the work site. Where access to the work site is by means other than motor vehicle, transport will be provided by Parks Canada from the nearest passable road or as otherwise agreed upon to the work site. A passable road is defined as a road or trail which is accessible by a four-wheel drive motor vehicle. Only crew members with valid driver's licenses must operate these vehicles.
- (c) All crew transport vehicles provided under the Standing Offer must be four-wheel drive crew cab or extended cab trucks in good operating condition with a current mechanical roadworthiness inspection certificate and fully insured for the term of the Standing Offer. Each truck must have locked storage in the back of adequate size for personal belongings and government issued equipment. The trucks and storage are subject to inspection and approval by the Parks Canada Representative.
- (d) The Contractor must immediately notify the Parks Canada Representative of any vehicles provided for work under the Standing Offer which become unserviceable (i.e. unable to be operated or unable to be operated in a safe manner). Any unserviceable vehicles must be repaired or replaced within 24 hours of becoming inoperable. Parks Canada may provide, at its sole discretion, transportation or a replacement vehicle for use by the Contractor for the duration of the transition period. The Contractor is responsible for any costs incurred by Parks Canada for such transportation or vehicle. The vehicle daily rate will not be paid for any

unserviceable period. Replacement vehicles must meet all of the conditions indicated herein.

6. Schedule and Hours of Work

- (a) The Contractor must ensure that a sufficient number of crew leaders and crew members are available to work at all times during the schedule as indicated in the call-up. The total length of a call-up is not exceed 19 days in duration. Personnel are not to exceed 14 days of active fire duties, and will be required to take 2-4 days of rest before returning to duty as per the *Work-Rest Guidelines for Parks Canada Wildland Fire Personnel (V2)*.
- (b) The daily hours of work of the crew will be set by the Parks Canada Representative.
- (c) A workday is eight (8) working hours including coffee breaks and travel time both ways between the work site and designated marshalling point, unless stipulated and agreed upon otherwise in the call-up or resulting contract. Meal breaks are not included in the workday.
- (d) Time spent in camp or on “off-hours” are not classified as working time and will not be paid by Parks Canada.
- (e) If the Contractor fails to remain onsite and available for work in accordance with the agreed to schedule, Parks Canada is not responsible for any costs to the Contractor from the time of departure from the site and the resulting contract shall be subject to contract termination by default by the Contractor (SACC Manual clause 2010C 21 (2021-12-02) Default by the Contractor) with no minimum payment as outlined in Annex B – Basis of Payment.

7. Meals and Accommodations

- (a) At the time of call-up, the Parks Canada Representative will indicate if the Contractor is authorized to supply reimbursable meals and accommodation. When releasing a Contractor from a job, the Parks Canada Representative will advise the Contractor of meals and accommodation which are authorized for the Contractor’s return to the Contractor’s point of hire.
- (b) The Contractor must include information on accommodation and meals submitted and identified on the signed daily time sheets and must obtain the signature of the Incident Commander or designate.
- (c) Parks Canada may require contract fire crews to stay in Parks Canada supplied fire camps while working on a job, which will be provided at no cost to the Contractor.
- (d) The Contractor must ensure that no alcohol, cannabis, and/or illegal drugs are located on or in any government facility or fire camp. Possession or any evidence of usage by any crewmember constitutes grounds for immediate removal of the crew member(s) from the Work.

8. Statutory Compliance and Occupational Health and Safety

- (a) The Contractor must ensure all work is performed in accordance with the Occupational Health and Safety Act and regulations.
- (b) The Contractor must, for the purposes of the Occupational Health and Safety Act (Alberta), Workers Compensation Act (British Columbia), Occupational Health and Safety Act and Regulations (Saskatchewan, Yukon), Work Place Safety and Health Act and Regulations (Manitoba), Safety Act and Regulations (Northwest Territories, Nunavut), and for the term of the Standing Offer:
 - i. Act as the Employer where there is only one (1) employer on the work site in accordance with the Authority Having Jurisdiction (AHJ);

Solicitation No.:
5P420-20-0425/A

Amendment No.:
00

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- ii. Accept the role of Prime Contractor where there are two (2) or more employers involved in work at the same time and space at the work site in accordance with the Authority Having Jurisdiction (AHJ); and
- iii. In the event of two (2) or more Contractors working at the same time and space at the work site agree to the Parks Canada designated officer's order to:

- 1) As the Prime Contractor, accept the responsibility for Parks Canada's other Contractor(s); or
- 2) Accept Parks Canada's other Contractor's role as Prime Contractor and conform to that Contractor's Site Specific Health and Safety Plan.

(c) The Contractor must immediately report to Parks Canada all work related incidents resulting in medical aid, disabling injury or fatality and serious accidents (defined in section 13(1.1) of the Occupational Health and Safety Act) occurring as a result of any services provided under the Standing Offer. Within 48 hours of the event, the Contractor must forward a copy of the accident report to the Parks Canada's designated officer. The Contractor must further ensure that, where required by regulations, accidents are reported to the Worker's Compensation Board.

(d) All injuries must be immediately reported to the Contractor's Representative and a First Aid record completed.

9. Parks Canada's Responsibilities

(a) Parks Canada guarantees a minimum of five (5) workdays per call-up to the crew(s). This guarantee only applies to initial crew(s) and does not apply to additional crew(s), nor does it apply if the contract is terminated by default by the Contractor.

(b) Parks Canada will provide instructions to the Contractor pertaining to work to be performed and may issue such instructions verbally or in writing.

(c) Parks Canada retains the right to reject any crew leader or crew member that does not meet the requirements stipulated herein including physical fitness standards (see Appendix 1).

(d) The Parks Canada Representative has the right to refuse any personal items or equipment on the fire line.

(e) Parks Canada shall provide the Contractor with a sufficient number of radios for communication purposes while performing work under this Offer. Parks Canada shall provide all users of such radios with instructions on proper use and care of the equipment.

(f) Parks Canada shall monitor the Contractor's performance to ensure the terms and conditions of the Standing Offer and all other directions are being followed, especially pertaining to health and safety. Parks Canada reserves the right to stop the Contractor's work at its sole discretion in order to rectify any problem situations. Parks Canada shall not unreasonably invoke a stop work order. Parks Canada will not be responsible for any costs incurred as a result of a work stoppage.

(g) Parks Canada will provide the Contractor with a minimum of 24 hours notice of the date of release from each call-up.

APPENDIX A1 – FIRELINE QUALIFICATION FOR WILDLAND FIREFIGHTING CREWS

1. Entry Weight Guidelines

- (a) Total crew weight cannot exceed 1000lb (454.5kg). This weight can be distributed throughout the crew, however, this averages 200lb (90.9kg) maximum per crewmember as per “Parks Canada Fire Management Hover Exit Guidelines”.

2. Physical Fitness Standards

- (a) Each crew member must meet the following physical fitness standards known as the “Field Pack Test”:
 - i. The Field Pack Test requires individuals to walk a distance of 3.22 km (2 miles), carrying an 11.4 kg (25 lbs.) hose pack in less than 30 minutes. The test will be conducted on level ground over a firm, smooth, unobstructed surface.
- (b) Parks Canada reserves the right to conduct routine audits of fitness testing.

3. Medical Screening

- (a) The Contractor’s personnel must complete the Physical Activity Readiness Questionnaire (PAR-Q) (see Appendix 5) prior to fitness testing.
- (b) The cost of any medical requested by Parks Canada will be reimbursed upon receipt of report.

4. Qualification Requirements

- (a) Crew leader(s) must demonstrate aptitude for organization, communication and supervision.
- (b) Crewmembers must demonstrate aptitude for fire suppression and project work, and exhibit a good attitude toward work and supervisors.
- (c) **Type II Crew Leader Training:**
 - i. Wildland Crew Leader Training in training course approved by Parks Canada (S-131 Basic Wildland Fire Management, CIFFC standard training or equivalent).
 - ii. Standard First Aid & CPR
 - iii. Incident Command System I-200
 - iv. Transportation of Dangerous Goods – Air and Ground
 - v. WHMIS
- (d) **Type II Crew Member Training:**
 - i. Wildland Crewmember Training in course approved by Parks Canada (S100 or S131 standard training or equivalent)
 - ii. Standard First Aid & CPR
 - iii. Incident Command System I-100
 - iv. Transportation of Dangerous Goods – Air and Ground
 - v. WHMIS
- (e) At least one (1) member of the crew, excluding the crew leader, must have successfully completed Chainsaw Training that meets the CIFFC standard (see Appendix A6).
- (f) At least one (1) member of the crew must have Basic Wilderness First Aid Training (20 hours) or equivalent first aid training.

Solicitation No.:
5P420-20-0425/A

Amendment No.:
00

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Type 2 Sustained Action Wildland Firefighting Personnel for Parks Canada Fire Management

(g) Experience:

i. Crew Leader:

- 1) Minimum two (2) seasons as a crew member on initial attack and/or sustained action fire situations where helicopters, air tankers and heavy equipment have been utilized in the suppression effort.
- 2) Minimum of ten (10) active fire days acting as Type II crew leader on initial attack and/or sustained action fire situations where helicopters, air tankers and heavy equipment have been utilized in the suppression effort.
- 3) Knowledge of fire camp set up and operations, ground foam systems and application, sprinkler systems, water delivery systems, burn-out operations, and a basic knowledge of types and capabilities of heavy equipment.

ii. Crew Members: (at least two (2) members of the crew must have)

- 1) Minimum five (5) fires or 150 hours of wildland fireline duty time as a sustained action crewmember.
- 2) Hand-line construction, water delivery, chainsaw operations, burnout operations, fire camp setup and operation.

Solicitation No.:
5P420-20-0425/A

Amendment No.:
00

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APPENDIX A2 – NATIONAL PARKS AND NATIONAL HISTORIC SITES

The following National Parks and National Historic Sites are covered by the Standing Offer:

1. Banff National Park of Canada, Alberta
2. Ya Ha Tinda Ranch, Alberta, Sundre, AlbertaBar U Ranch National Historic Site of Canada, Longview, Alberta
3. Elk Island National Park of Canada, Alberta
4. Jasper National Park of Canada, Alberta
5. Fort St. James National Historic Site of Canada, Fort St. James, British Columbia
6. Rocky Mountain House National Historic Site of Canada, Rocky Mountain House, Alberta
7. Waterton Lakes National Park of Canada, Alberta
8. Wood Buffalo National Park of Canada, Alberta/ Northwest Territories
9. Glacier National Park of Canada, British Columbia
10. Kootenay National Park of Canada, British Columbia
11. Mount Revelstoke National Park of Canada, British Columbia
12. Yoho National Park of Canada, British Columbia
13. Batoche National Historic Site of Canada, Batoche, Saskatchewan
14. Fort Walsh National Historic Site of Canada, Merryflat, Saskatchewan
15. Grasslands National Park of Canada, Saskatchewan
16. Prince Albert National Park of Canada, Saskatchewan
17. Riding Mountain National Park of Canada, Manitoba

Solicitation No.:
5P420-20-0425/A

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APPENDIX A3 – CONTRACT CREW MANIFEST

Date: _____

Company: _____

Crew Number: _____

Name	D.O.B.	Position	Emergency Contact Name	Emergency Contact Number	Dress Weight (lbs)	Cargo Weight (lbs)	I-100	Standard First Aid	WHMIS	TDG	Chainsaw – Faller	Chainsaw – Buckler	Wilderness First Aid
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Leader					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Member					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Member					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Member					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Member					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Call-ups against the Standing Offer will not be made if crew leaders and crew members do not meet fitness and training standards outlined in Annex A – Statement of Work. As outlined in the Statement of Work, each crew provided must have at least one (1) crew member that has completed chainsaw training and at least one (1) crew member that has current Basic Wilderness First Aid Training. As per item 3.(d) in the Statement of Work, a crew manifest will be required at the time of call-up and prior to commencement of work.

Solicitation No.:
5P420-20-0425/A

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APPENDIX A4 – WATCH OUT SITUATIONS, STANDARD FIRE ORDERS AND LACES

The 18 Watch Out Situations:

1. Fire not scouted and sized up.
2. In country not seen in daylight.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behavior
5. Uninformed on strategy, tactics, and hazards.
6. Instructions and assignments not clear.
7. No communication link between crewmembers and supervisors.
8. Constructing line without safe anchor point.
9. Building line downhill with fire below.
10. Attempting frontal assault on fire.
11. Unburned fuel between you and the fire.
12. Cannot see main fire, not in contact with anyone who can.
13. On a hillside where rolling material can ignite fuel below.
14. Weather gets hotter and drier.
15. Wind increases and/or changes direction.
16. Getting frequent spot fires across line.
17. Terrain or fuels make escape to safety zones difficult.
18. Feel like taking a nap near fireline.

10 Standard Fire Orders:

Fire Behavior

1. Keep informed on fire weather conditions and forecasts.
2. Know what your fire is doing at all times.
3. Base all actions on current and expected behavior of the fire.

Fireline Safety

4. Identify escape routes and safety zones and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.

Organizational Control

7. Maintain prompt communications with your forces, your supervisor and adjoining forces.
8. Give clear instructions and insure they are understood.
9. Maintain control of your forces at all times.

If 1-9 are considered, then...

10. Fight fire aggressively, having provided for safety first.

The 10 Standard Fire Orders are firm. We don't break them; we don't bend them. All firefighters have the right to a safe assignment.

LACES:

Lookouts

Anchor Points

Communications

Escape Routes

Safety Zones

This simple acronym reminds firefighters to establish Lookouts, work from Anchor points, and establish Communications, Escape routes and Safety zones.

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5P420-20-0425/A

Amendment No.:
00

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APPENDIX A5 – PAR-Q FORM

Under separate attachment as *AppendixA5_PAR-Q+.pdf*

S-212 Chainsaw Training Standard

Approved: October 28 2020

Preface:

This document forms the CIFFC Training Standard for Chainsaw Operators. The training objectives outlined in the standard identifies the basic knowledge, skills, and proficiency requirements for *interagency resource exchange*.

This standard was developed by a project team with representation from the CIFFC Training Working Group (TWG) members and subject matter experts from the provinces and territories of British Columbia, Alberta, Manitoba, Ontario, Nova Scotia and the Yukon. The standard was approved by the CIFFC Resource Management Committee (RMC) on October 28 2020.

This training standard forms an integral part of the CIFFC Interagency Exchange Standard for fire line staff, enabling sending and receiving agencies to have a common expectation for competencies among chainsaw operators from all wildfire agencies across the country. Local legislation and regulation will require some agencies within CIFFC to develop internal chainsaw operator skill levels significantly beyond the CIFFC exchange standard.

Instructors qualifications	Lead and others	Agency or province/territory specific.
Target Audience	Individuals performing the function of crew leader and crew member type 1 and 2	
Pre-requisites	Must demonstrate safety considerations and attitude.	

The CIFFC Chainsaw Training Standard has three components:

1. Training Outline and Training Objectives
2. Demonstration of training standard competency through a Performance Task Requirements Checklist and at the discretion of agencies, a written test.
3. National assessment tool for chainsaw operation while export

Checklist Note - Agencies are encouraged to develop their own performance task requirements checklists that are more user-friendly and/or meet additional agency specific training objectives. The appended checklist simply provides a catalog of competencies that must be demonstrated to meet the national exchange standard.

To meet the requirements of the CIFFC Training Standard, operators are required to complete the following:

1. Must meet all the Performance Task Requirements.
2. Must pass written test (if required by local agency)
3. Must be recertified on a 3 year basis

Part I - Training Outline and Training Objectives

Chainsaw Training Standard - Overall Learning Outcome

Upon full completion of the training, operators will be able to:

- Apply chainsaw safety standards
- Demonstrate basic chainsaw operations including troubleshooting and maintenance
- Identify hazards and develop a cutting plan before performing chainsaw cuts
- Perform basic chainsaw techniques, for specific purposes during exchange
- Determine if cutting task assignment is permitted while exported

Unit 1	Chainsaw Safety
Unit 2	Chainsaw Parts
Unit 3	Chainsaw Operations
Unit 4	Chainsaw Maintenance and Troubleshooting
Unit 5	Cutting Plan and Hazard Assessment
Unit 6	Chainsaw Techniques
Unit 7	Applications of Chainsaw During Exports

Unit 1: Chainsaw Safety

Training Objectives

Personnel will be able to:

Knowledge-based objectives:

- Describe required qualifications to operate a chainsaw/SWPs (agency specific).
- List required Personal Protective Equipment (PPE).
- Describe personal safety considerations and attitudes when undertaking chainsaw operations.
- Recognize right to decline assignment.

Performance-based objectives:

- Inspect and demonstrate proper use of Personal Protective Equipment (PPE)
-

Unit 2: Chainsaw Parts

Training Objectives

Personnel will be able to:

Knowledge-based objectives:

- List principal chainsaw parts
- Explain safety features
- Identify chain parts

Performance-based objectives:

None

Unit 3: Chainsaw Operations

Training Objectives

Personnel will be able to:

Knowledge-based objectives:

- Describe what type of fuel and chain oil is required
- Explain how to handle a chainsaw
- Describe how to start/stop the engine
- Define testing procedures after starting a chainsaw including idle set, chain brake, oiler function
- Describe transporting procedure

Performance-based objectives:

- Demonstrate how to handle a chainsaw, to start the engine, to test the components and to transport it.
 - Verify completeness of the tool kit
-

Unit 4: Chainsaw maintenance and troubleshooting

Training Objectives

Personnel will be able to:

Knowledge-based objectives:

- Explain principal chainsaw components requiring maintenance
- List tools included in the tool kit
- Define how to sharpen a chain and adjust tension
- Explain possible failures and how to troubleshoot.

Performance-based objectives:

- Demonstrate ability to perform basic chainsaw maintenance (clean air filter, replacing spark plug, clean oil passage, removing debris from brake etc...)
 - Demonstrate proper method(s) for sharpening chainsaw chain
 - Demonstrate how to install and adjust chain tension
 - Demonstrate ability to troubleshoot and correct minor issues as per performance task checklist (engine not starting, oil not lubricating chain, chain rotating while idling, etc.)
-

Unit 5: Cutting plan and hazard assessment

Training Objectives

Personnel will be able to:

Knowledge-based objectives:

- List components of a cutting plan and explain how to establish
- Explain how to assess a tree and the surrounding environment for hazards
- Describe procedures in event of incident requiring medical attention

Performance-based objectives:

- Demonstrate hazard assessment of the cutting assignment and area (chicots, hang-ups, spring poles, power lines, terrain hazards, lean, burning trees, etc.)
- Demonstrate competency in assessing a tree from at least two directions and identifying the direction of fall prior to cutting

- Demonstrate ability to provide a safe felling environment with adequate escape routes and control work area

Unit 6: Chainsaw Techniques and hazard mitigation techniques

Training Objectives

Personnel will be able to:

Knowledge-based objectives:

- List different types of notching and their usage (conventional, humbolt, and v notch)
- Explain limbing sequence
- Recognize compression and tension wood and mitigation technique
- Describe how to fell a lean tree
- Explain how to remove a hang-up tree

Performance-based objectives:

- Perform felling trees with proper notching and body positioning
- Demonstrate the proper procedure for limbing and bucking with their specific hazard assessment
- Demonstrate mitigation techniques for compression and tension

Unit 7: Applications of chainsaws during exports

Training Objectives

Personnel will be able to:

Knowledge-based objectives:

- Define permitted and restricted chainsaw operations while out-of-province (Canada)
- Use the risk assessment reference tool

Performance-based objectives:

- Using Part 1 and Part 2 of the assessment tool, evaluate if cutting assignment is permitted considering the type of work and risk factors.

Part II – Chainsaw Performance Task Requirements Checklist

(Personnel must successfully demonstrate each task)

Trainee: _____ Date _____

Chainsaw Safety

Given a chainsaw and PPE, describe procedures for inspecting equipment and performing safe felling operations.

- Inspect, ensure completeness of, and demonstrate correct use of PPE:
 - Pants - Boots - Hardhat
 - Face screen - Safety glasses - Hearing protection
 - Gloves

Chainsaw Operations

Given a chainsaw and proper PPE:

- Demonstrate proper procedure to fill chain oil and fuel.
- Demonstrate how to handle a chainsaw.
- Perform correct procedures for starting chainsaw:
 - On ground - Leg lock
- Demonstrate test procedure after starting chainsaw.
- Demonstrate transportation of chainsaw.
- Show safety considerations and attitude.

Chainsaw Maintenance and Troubleshooting

Given a chainsaw, proper PPE and chainsaw tools:

- Demonstrate ability to perform chainsaw inspection/maintenance:
 - Chain brake - Air filter - Spark plug
 - Fuel/oil tanks - Spark arrestor - Clutch (visual)
 - Guide bar - Chain catcher - Throttle lock
 - Vibration mounts - On/off switch - Muffler cooling fins

- Demonstrate ability to troubleshoot minor issues:
 - Poor cutting - Chain not tensioned or not turning
 - Engine not starting - Chain will not lubricate

- Demonstrate ability to sharpen chain.

Cutting Plan and Risk Assessment

Given a cut block:

- Analyze felling assignment for safety, complexity level and efficiency considerations.
- Identify hazards in cutting area:
 - Chicots
 - Ground debris
 - Hydro lines
 - Hung up tree
 - Public in area
 - Structure
 - Roads
 - Terrain
- Perform site and tree assessment:
 - Species
 - Sound or soft
 - Splits and cracks
 - Stand density
 - Defects
 - Compression and tension
 - Diameter, size
 - Weight distribution
 - Deformities
 - Degree of lean
 - Fire damage
 - Live or dead
 - Bark soundness
 - Terrain
 - Multiple tops
 - Bug/insect damage
- Establish and communicate cutting plan including identified escape routes.
- Perform an After Action Review (agency specific).

Chainsaw Techniques and Hazard Mitigation Techniques

Given a chainsaw, required PPE and a safe location to fell trees:

- Perform felling trees with proper notching including:
 - 3 notch types
 - Appropriate felling technique using wedge
- Demonstrate proper chainsaw use to accomplish cutting, bucking and limbing:
 - Hand and thumb placement
 - Body positioning
 - Bar tip management
 - Limb removal sequence
 - Kick back avoidance
 - Proper cutting technique when tension and compression
- Demonstrate removal for hung up tree.
- Demonstrate how to fell tree with lean.

Application of Chainsaw During Export

Given a felling situation with a specific tree:

- Demonstrate using the **National Assessment Tool for Chainsaw Operation While Exported** if cutting a specific tree for a specific reason is permitted.

Instructor: _____ Print Name: _____

Part III- National Assessment Tool for Chainsaw Operation While Exported

This guide is composed of two charts: Out of province chainsaw operations characterize the types of cutting tasks permitted during exports in Canada and Risk assessment reference characterize the conditions allowed to perform the task.

Out of Province Chainsaw Operations	
PART 1	GREEN = Allowed to perform chainsaw operations *Strictly adhere to safe work procedures*
	<ul style="list-style-type: none"> • Helipad construction
	<ul style="list-style-type: none"> • Line, road and escape route clearing
	<ul style="list-style-type: none"> • To Buck a felled tree
	<ul style="list-style-type: none"> • To create an opening for bucketing, to install a pump, to park a vehicle, etc..
	RED = NOT allowed to perform chainsaw operations *Contact the supervisor * *Modify the work plan*
	<ul style="list-style-type: none"> • To fall a tree of moderate to high risk • When stump size is wider than bar length (saw dependant, max 24 inch) • When tree is taller than 15 meters

Risk Assessment Reference		
For Fallers and Bucker		
PART 2	GREEN = LOW RISK *Strictly adhere to safe work procedures*	
	STEM	<ul style="list-style-type: none"> • <20% Lean • Stable Bark
	CANOPY	<ul style="list-style-type: none"> • Free of overhead hazards
	DECAY	<ul style="list-style-type: none"> • With sounding, base is determined to be solid
	FALLING	<ul style="list-style-type: none"> • Adequate opening present for falling the tree
	HEIGHT	<ul style="list-style-type: none"> • Less than 10 meters tall
	TERRAIN	<ul style="list-style-type: none"> • Slope 0-20% • No obstacle on ground
	YELLOW = CAUTION *With 3 or more yellow indicators, you are not allowed to cut*	
	STEM	<ul style="list-style-type: none"> • Unstable bark • Stress Cracks • Split Butt • Split Stem

		<ul style="list-style-type: none"> • Heavy Leaner (>20% Lean) 	<ul style="list-style-type: none"> • Less than 30% Cross Section damage (ex. burned)
	CANOPY	<ul style="list-style-type: none"> • Overhead hazards present: brushy tops/limbs; dead or decaying tops/limbs • Limb-tied 	
	DECAY	<ul style="list-style-type: none"> • Vertical bore determines sufficient shell thickness for holding wood • White fungus (indicator for Faller only) 	
	FALLING	<ul style="list-style-type: none"> • Adequate opening must be made for falling the tree 	
	HEIGHT	<ul style="list-style-type: none"> • 10-15 meters tall 	
	TERRAIN	<ul style="list-style-type: none"> • Slope 21%-40% • Obstacles on ground 	
<p>RED= DANGER, NOT ALLOWED TO CUT *With one indicator or more, you are not allowed to cut</p>			
	STEM	<ul style="list-style-type: none"> • 30% or greater Cross Section damage 	
	CANOPY	<ul style="list-style-type: none"> • No escape routes from overhead hazards 	
	DECAY	<ul style="list-style-type: none"> • Vertical bore determines hollow and advance decay – if cut, base will not support stem 	
	FALLING	<ul style="list-style-type: none"> • Inadequate escape routes (compromised, blocked, poor footing, hazards, time) 	
	HEIGHT	<ul style="list-style-type: none"> • Greater than 15 meters 	
	TERRAIN	<ul style="list-style-type: none"> • Greater than 40% Slope, no bucking or falling permitted 	
	SAFETY	<ul style="list-style-type: none"> • Cutting of log will impact operations downhill and have potential to generate large No Work Zones 	