

April 18, 2018

BRUSH PILE BURNING

SWP-86

PURPOSE/APPLICATION

To provide guidance for the safe planning, monitoring and disposal of brush pile(s) through burning. **This Safe Work Practice is applicable for brush pile disposal under frozen ground conditions only**. Prior to any burning, verify all required Provincial or Federal permits are in place. Confirm that permissions have been granted by the Owner or Prime Contractor including any Hot Work Permits.

This safe work practice applies to all CPES employees and contractors.

Supervisor

• Ensure the appropriate assessments and hazard controls have been taken within regional forest management area

- Confirm competency of all operators (e.g. logging equipment or track hoe operator, etc.)
- Verify the required permits and client requirements are in place prior to starting burn operations
- Supervise activities as required

Worker

PPE

- Speak up if unclear about the hazards or the safety procedures
- Inspect firefighting equipment prior to starting burn operations
- Follow forest management area guidelines
 - CPES minimum requirements
 - Respirators (as required)
- **TRAINING** Any required equipment operator training •
- Hearing protection

Chainsaw PPE - SWP-13 (as required)

- Equipment Operator Competency (as required)
- Noise levels

Use of chainsaws

- HAZARDS & CONCERNS
- Fire, burns, heatWork around mobile equipment
- Trees or brush entering equipment
 - ring



GENERAL PRECAUTIONS

Different Provincial, Municipal, County, or the Geographic region within those sections may have specific restrictions or permitting process that the Supervisors will need to verify prior to starting work. This SWP is to provide general best practice guidance and wildfire mitigation planning details.

Note, always consult with the relevant government agency or municipality before starting work. These regulations are subject to change, always consult with the local jurisdiction prior to the start of work.

Alberta - Fire permits are required from March 1 to October 31, to obtain a permit visit <u>https://wildfire.alberta.ca/prevention/fire-permits.aspx</u> or call 310-0000



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British Columbia - Category 3 open fires are required to be registered with the Burn Registration Line (1-888-797-1717)

"Category 3 open fire" means an open fire that burns:

- Material concurrently in 3 or more piles each not exceeding 2 m in height and 3 m in width
- Material in one or more piles each exceeding 2 m in height or 3 m in width
- One or more windrows, or stubble or grass over an area exceeding 0.2 ha.

Contact the Regional Open Burning Information Line (1-855-262-2876) before burning to verify proper venting.

Saskatchewan - A controlled burn should be reported to the Saskatchewan Public Safety Agency and Fire Safety's Control Burn (1-866-404-4911). From April 1 to October 31, a Burn Notification Number is also required for open fires in a provincial forest, in park land, or any quarter section wholly or partly within 4.5 kilometers of a provincial forest.

Manitoba - Rural Municipalities must have bylaws in place to enact burning restrictions for their areas. For more information on how to develop and implement restriction bylaws please contact the Office of the Fire Commissioner or visit <u>www.firecomm.gov.mb.ca/support_bylaws.html</u>

PLANNING AND PRE-BURN HIAC DEVELOPMENT

Prior to beginning work complete a formal hazard assessment (HIAC) prior to igniting the brush and communicate the THA to the workers involved during the Daily Tailgate Meeting. The assessment should include:

- Ground conditions
- Wind direction and speed
- Communication plan if laborers are working around equipment
- Equipment inspection frequency

- Slope
- Fire suppression equipment and location
- Burn plan if there are multiple brush piles or pieces of equipment
- Review of any permit and emergency procedure
- Brush pile location (e.g.: pipeline ROW, ditch).

THE DO's:

- **DO** Review with operators the hazards associated with falling trees and flying pieces of wood accidentally hitting the operator or equipment
- **DO** Use caution while piling and packing brush piles in to avoid possible roll over
- **DO** Stop equipment and physically inspect it every 2 hours at a minimum to ensure there is no buildup of debris or embers inside the machine compartments
- **DO** Equip tracks with ice corks during any burning under frozen ground conditions
- **DO** Push brush straight up and down instead of across the hillside when piling brush on slopes attempt to avoid sliding

DO Tramp brush down, to maintain a continual forward motion. Whenever it becomes necessary to back

the machine up take care around any debris sticking up that could enter the equipment

DO Tramp the brush 90 degrees to the direction of intended piling to facilitate a more compact brush pile

DO When brush is to be burnt soon, leave piles open so that fire can be lit in-between the piles. After the fire has achieved some heat push piles together on top of the fire



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- DO Consider the use of a brush burning sloop where appropriate
- **DO** Follow safe towing practices when moving sloop, use spotters, keep clear of pinch points, use approved towing equipment, etc.
- **DO** Try to limit the soil and dirt in your windrows or brush piles to allow for a cleaner burn (this will reduce the likelihood of smoke issues and shouldering fires)
- DO Ensure the engine and hydraulic compartments are clean and free of all debris
- **DO** Ensure protective covers are installed over any access points into the equipment internal compartments
- **DO** Ensure that there are no hydraulic or diesel leaks on any equipment prior to the start of work
- **DO** Inspect all fire extinguishers prior to ignition. Fire extinguishers are not to be removed from the equipment.
- **DO** Verify that all safety equipment is on hand, (fire extinguishers, Wajax pumps, chain saws, or heavy equipment)
- **DO** Ensure spare fire extinguishers and/or Wajax Pumps are to be placed near brush piles
- **DO** Have your fire permit ready to present if requested
- **DO** Watch for sparks and burning material that may result in smaller fires. Larger fires can send these sparks over several kilometers, especially when burning in the wind
- **DO** Verify you have the tools and equipment listed in your permit available
- **DO** Check the weather conditions, wind direction and wind speed. Continue to monitor throughout the burning process. If wind gusts reach or exceed 25km/h (or as per burn permit); additional burning must not occur, and additional monitoring must be initiated for existing brush piles being burned
- **DO** Ensure fire extinguishers are fully charged and certified; the bracket is in working condition and the safety pin on the extinguisher is properly installed
- **DO** Light brush pile with tiger torch (gas and diesel are prohibited). Ignite the brush pile on the downwind side of the pile. This will enable better initial control of the burn
- **DO** Assign a safety watch with firefighting equipment to be present throughout the burn. Never leave a burning brush pile unattended

DO Stay upwind when stocking or monitoring fire to prevent burning ambers from landing on equipment **DO** Keep Burn piles smaller whenever possible as they will be more manageable to extinguish if needed **DO** Verify any fire guards or clearance distance to existing facilities or forested areas required by fire

permits, local jurisdictions, or owner/client policies are maintained

THE DON'Ts

- **DON'T** Allow ground personnel in the immediate vicinity of the clearing dozer
- **DON'T** Operate equipment with side curtains on the machine when working in brush and during burning operations
- **DON'T** Leave brush piles burning overnight unless an approved plan which meets all landowner and governmental regulations is in place. Without these plans, all brush piles will be extinguished prior to leaving the site
- **DON'T** Make windrows and brush piles more than 6 meters wide
- **DON'T** Continue the burn if the wind is gusting beyond the limit outlined on your permit, immediately extinguish your fire



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DON'T Stack the brush pile near any existing trees, power lines, headers, and/or hot lines. The minimum distance from utilities/facilities is 30 meters unless permission is granted by the owner

Extinguishing the Fire:

THE DO'S

- **DO** Spread or stir the debris to speed up extinguishing the fire
- DO Re-pile unburnt debris to ensure it burns as needed
- **DO** Walk the area and check for heat. Fire can smolder underground only to reappear under dryer conditions as a wildfire
- **DO** Insert a metal probe into the burned area and then feel it for heat to ensure nothing is burning in the ground
- DO Water down and extinguish hot spots
- DO Extinguish any areas still burning and ensure that they are cool to the touch
- **DO** Verify brush pile is disposed of, spread the remaining debris out and ensure the fire is extinguished
- **DO** Cover the debris with snow (if possible) or mix with clay surface soil



Figure 1 – Alberta Forest Protection Area



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REFERENCES / ADDITIONAL INFORMATION

- SWP 05 Fire Extinguishers
- SWP 13 Chain Saw Ops
- SWP 35 Propane Cylinders and Torches
- SWP 44 Mechanical Mobile Equipment
- SWP 65 Forestry Logging Operations
- SWP 19 Towing
- SJP 28 ROW Preparations

REGULATIONS

Alberta Forest Protection Act - <u>www.wildfire.alberta.ca</u>

British Columbia

BC Wildfire Services - <u>https://www2.gov.bc.ca/gov/content/safety/wildfire-status/fire-bans-and-restrictions</u>

Saskatchewan

Ministry of Environment's Wildfire Management Forest Protection Offices - www.saskatchewan.ca/fire

Manitoba

Manitoba Wildfire Services - https://www.gov.mb.ca/sd/wildfire_program/

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