

PART 10
FOREST PROTECTION

DIVISION (1) -- INTERPRETATION AND APPLICATION

Interpretation

108. In this Part

"fire season" means the period each year commencing April 15 and ending October 15, or any other period ordered by the Lieutenant Governor in Council for a particular calendar year;

"forest" means land containing timber, shrubs, slash or peat;

"occupied area" means

- (a) a parcel, as defined in the land title legislation, of private land or of Crown land subject to an interest under the *Land Act*, that is not in a tree farm licence area or woodlot licence area;
- (b) Crown land subject to
 - (i) an old temporary tenure, free use permit, licence to cut or road permit, or
 - (ii) a timber sale licence that does not make provision for cutting permits;
- (c) Crown or private land subject to a cutting permit issued under a tree farm licence, woodlot licence, forest licence, timber sale harvesting licence, timber sale licence or timber licence; or
- (d) Crown land that is actually occupied by a person for an industrial operation, except an industrial operation carried on under a tenure, licence or permit referred to in subparagraph (b) or (c), including Crown land within 100 m of the perimeter of the operation;

"slash" includes brush and other forest debris;

"snag" means a dead tree.
1978-23-108.

Application

109. This Part does not reduce an obligation imposed by, and shall be construed to be in addition to enactments of, a municipality, regional district and improvement district.
1978-23-109.

DIVISION (2) -- FIRE PREVENTION

Burning permit

110. (1) Subject to this Part, no person shall light, fuel or make use of an open fire in or within 1 km of a forest

- (a) anywhere in the Province, during the fire season, or
- (b) in an area of the Province specified in an order made under section 112, during the period specified in the order

other than under and in compliance with a burning permit.

(2) The Lieutenant Governor in Council may by order exempt a part of the Province from subsection (1).

1978-23-110; 1979-11-13; 1980-50-42, effective May 17, 1980.

Cooking and warmth

111. (1) Subject to the regulations, a person may, except in an area and during a period specified in an order made under section 114, light, fuel and make use of an open fire for cooking or warmth.

(2) A person who, for cooking or warmth, lights, fuels or makes use of an open fire shall comply with the regulations, and shall not leave the open fire unattended.

1978-23-111.

Outside fire season

112. (1) Where he considers it necessary for controlling smoke or for silvicultural or other resource management purposes during a period that is not included in a fire season, the regional manager or district manager may order that, during the period and in the area specified in the order, no person shall light, fuel or make use of an open fire except for cooking or warmth, other than under and in compliance with a burning permit.

(2) Notice of the order shall be published or broadcast, or both, in or near the area specified in the order.

1978-23-112; 1980-14-2.

Issue of burning permit

113. (1) A regional manager, a district manager, a forest officer authorized by either of them, or a person authorized by any of them may issue a burning permit authorizing its holder to light, fuel and make use of an open fire for any purpose, and the burning permit may contain terms and conditions the person who issues the permit considers appropriate.

(2) A regional manager, a district manager or a forest officer authorized by either of them may, in a notice served on its holder, suspend for a period or cancel a burning permit where

- (a) the permit is not complied with; or
- (b) the holder of the permit contravenes this Part or a regulation made respecting this Part.

1978-23-113; 1980-14-7,37.

Suspension of permit

114. Where he considers it necessary as a precaution against forest fire

- (a) the regional manager or district manager may, in a notice published or broadcast, or both, in or near an area of the Province,
 - (i) suspend, cancel or restrict the use of all burning permits issued for the area; and
 - (ii) order that no person shall light, fuel or make use of an open fire in the area for cooking or warmth or for any other purpose; and
- (b) the regional manager, a district manager or a forest officer authorized by either of them may, in a notice served on its holder, suspend, cancel or restrict the use of a burning permit.

1978-23-114; 1980-14-2,7.

Restricted district

115. (1) Where the minister considers that life or property is endangered by hazardous fire conditions, by the occurrence or spread of fire in a forest in an area, or by forest protection operations, he may, in a notice published or broadcast, or both, in or near the area, order that

- (a) after a date specified in the notice and until an order is made under paragraph (b), the area is a restricted district, and
 - (b) after a date specified in the notice, the area is no longer a restricted district.
- (2) No person shall, other than under and in compliance with the written consent of the regional manager, district manager or a forest officer authorized by either of them
- (a) enter or be in the restricted district for a purpose prohibited in the order, or
 - (b) carry on, in or within 1 km of a forest in the restricted district, industrial or other operations of a kind prohibited in the order.
- (3) This section does not prevent a person
- (a) who resides on land in a restricted district from travelling to and from, or occupying, his residence;
 - (b) from using a highway, as defined in the *Highway Act*; or
 - (c) from travelling to and from an industrial or other operation that is not of a kind prohibited in the order.

1978-23-115; 1980-14-38

Fire to be extinguished

116. A person who in or within 1 km of a forest
(a) throws or drops a burning match or lighted cigarette, cigar, ashes of a pipe or other burning substance, or
(b) causes a fire by any means or for any purpose,
shall ensure that the match, cigarette, cigar, ashes of a pipe, other burning substance or fire is extinguished before leaving the area.
1980-14-39.

DIVISION (4) -- FIRE SUPPRESSION**Extinguishing and reporting**

120. A person who sees an unattended open fire burning in or within 1 km of a forest shall
(a) use his best efforts to control and extinguish the fire; and
(b) report the fire to a forest officer or peace officer without delay.
1978-23-120.

Fire control

121. Where an uncontrolled fire is burning on or has burned across
(a) an occupied area, as referred to in paragraph (a) of that definition, that a person occupies for any purpose;
(b) an occupied area, as referred to in paragraph (b) or (c) of that definition, on which a person is carrying on an operation under the tenure, licence or permit; or
(c) an occupied area, as referred to in paragraph (d) of that definition, on which a person is carrying on an industrial operation referred to in that paragraph,
the person shall, regardless of the cause or of the origin of the fire, use his best efforts to control and extinguish the fire and for that purpose shall, subject to an agreement entered into under this or the former Act,
(d) employ a number of persons equal to the maximum number of persons employed by him within 24 hours before discovery of the fire, in the operations carried on on the occupied area and on a forest service road or right of way under a road permit that provides access to the occupied area;
(e) engage all appropriate equipment that is on or reasonably close to the occupied area when the fire is discovered; and
(f) if ordered to do so by the regional manager, a district manager or a forest officer authorized by either of them, place those persons and that equipment at their disposal for the purpose of controlling or extinguishing the fire,
unless the regional manager, a district manager or a forest officer authorized by either of them exempts the person in whole or in part from this section.
1978-23-121; 1980-14-7; 1980-50-43, effective May 17, 1980.

Compensation

122. (1) A person who incurs expense, other than on private land owned or occupied by him, in
(a) complying with section 121; or
(b) voluntarily attempting to control or extinguish a fire burning in or within 1 km of a forest,
shall, subject to this section, be compensated by the Crown in an amount determined by the regional manager calculated at the prescribed rates for labour and equipment.

- (2) Compensation is not payable if the regional manager determines that
- (a) the fire was caused by the person or by a person employed on the occupied area;
 - (b) the person did not comply with section 120;
 - (c) the person, if required to, did not comply with section 121; or
 - (d) the person did not comply with the regulations made under this Act respecting fires or prevention of fires.
- 1978-23-122; 1980-14-40.

Forest officer may enter

- 123.** (1) Where an uncontrolled fire burns across an occupied area a regional manager, a district manager or a forest officer authorized by either of them may,
- (a) without the consent of a person who has a right to occupy the area; and
 - (b) with men and equipment,
- enter the area and conduct whatever operations on the area he considers necessary to control and extinguish the fire.
- (2) Where entry is made or operations are conducted under subsection (1)
- (a) the occupier of an occupied area is not for only that reason relieved from performing an obligation required of him under this Division; and
 - (b) on private land, the owner of the private land shall on demand pay to the Crown the cost incurred by the Crown in attempting to control or extinguish the fire.
- (3) The regional manager, a district manager, a forest officer and a person acting under the direction of any of them for the purpose of controlling and extinguishing an uncontrolled fire may enter and go across private land, and the owner is entitled to compensation from the Crown for damage caused to the land by the entry or crossing.
- 1978-23-123; 1980-14-7; 1982-12-14.

Mandatory assistance

- 124.** (1) Where ordered to do so by a regional manager, district manager, a forest officer authorized by him, or a peace officer,
- (a) a person shall provide appropriate equipment he owns or has the use of; and
 - (b) a person who is 19 or older and fit to do so, shall assist in controlling and extinguishing a forest fire.
- (2) Compensation for equipment and labour provided under this section shall be paid by the Crown at the prescribed rates.
- (3) A person who
- (a) with the approval of a regional manager, district manager or a forest officer authorized by either of them, is appointed as a fire prevention officer by
 - (i) the holder of an agreement entered into under this or the former Act,
 - (ii) the owner of private land,
 - (iii) a person carrying on timber harvesting, land clearing, timber processing or other industrial operations, or
 - (iv) a municipality, or
 - (b) is designated by the regional manager or district manager as a fire warden may, over the land and for the time described in the appointment or designation and after presenting the notice of appointment or designation on demand, exercise the powers of a forest officer under this section.
- (4) Where money appropriated for fire suppression in any year is insufficient, the money required shall be paid out of the consolidated revenue fund without any other appropriation other than this subsection.
- 1978-23-124; 1980-14-41.

FIRE CONTROL RESPONSIBILITIES

VACANT CROWN LAND	OCCUPIED CROWN LAND
<p style="text-align: center;">LIGHTNING CAUSED</p> <ul style="list-style-type: none"> • Forest Service action at statutory rates. • Voluntary action by agency at forest industry rates (maximum 3 days). • <u>Authority:</u> Sections 122, 124 and regulation respecting rates of compensation. 	<p style="text-align: center;">LIGHTNING CAUSED</p> <ul style="list-style-type: none"> • Occupant must fight fire with available resources. • Occupant costs reimbursed at statutory rates. • Forest Service action at statutory rates. • Voluntary action by agency (other than occupant) at forest industry rates (maximum 3 days). • <u>Authority:</u> Sections 122, 124 and regulation respecting rates of compensation.
<p style="text-align: center;">ALL CAUSES OTHER THAN LIGHTNING</p> <p>Did agency taking action on fire cause fire?</p> <p><u>If yes:</u></p> <ul style="list-style-type: none"> • Must fight fire with available resources. • No reimbursement own costs. • May be prosecuted. • Forest Service costs and damages may be billed. • <u>Authority:</u> Sections 113, 124 and regulation respecting rates of compensation. <p><u>If no:</u></p> <ul style="list-style-type: none"> • Forest Service action at statutory rates. • Voluntary action by agency at forest industry rates (maximum 3 days). • <u>Authority:</u> Sections 122, 124 and regulation respecting rates of compensation. 	<p style="text-align: center;">ALL CAUSES OTHER THAN LIGHTNING</p> <p>Did agency taking action on fire cause fire?</p> <p><u>If yes:</u></p> <ul style="list-style-type: none"> • Must fight fire with available resources. • No reimbursement own costs (Section 121 Limitations). • May be prosecuted. • Forest Service costs and damages may be billed. • <u>Authority:</u> Sections 113, 116, 122, 161. <p><u>If no:</u></p> <ul style="list-style-type: none"> • Occupant must fight fire. Reimbursement at statutory rates. • Voluntary action by agency (other than occupant) at forest industry rates (maximum 3 days). • Forest Service action at statutory rates. • <u>Authority:</u> Sections 122, 124 and regulation respecting rates of compensation.

FIRE INVESTIGATION POINTS

All forest fires are investigated to find their cause. The following is a list of pointers to finding the cause.

1. LIGHTNING

Lightning fires are usually easy to determine. A combination of circumstances -- the knowledge of electrical storm activity in the area, remoteness and the improbability of human activity in the area, and evidence of a strike (tree trunk shattered with flame or smoke still in it, large pieces of burning or unburned branches or trunk scattered about) -- indicate lightning as the cause.

2. ACCIDENTAL -- MAN-CAUSED

- Metal fragments collected with a magnet may indicate unsafe cutting or welding operations.
- Clutch parts or brake shoes may indicate the mechanical failure of equipment.
- Rocks crushed by bulldozer tracks may indicate a fire caused by friction or by hot metal slivers breaking away from grousers and falling into light fuels.
- Vehicle tracks on steep, grass-covered slopes where no metal fragments are found raise the possibility of a vehicle with an overheated exhaust system.
- Fireworks, fuses and flares may have a residue of burned sulphur, or remnants of a wrapping or container. In the case of fuses, the metal spike would be left. Remember that objects often retain their shapes, even when totally burned.
- A cigarette by itself will rarely start a fire if the humidity is above 25 percent. Cigarette butts or remains such as filters may indicate smokers as the cause.
- Campfire escapes are identified by evidence of a prepared enclosure or the presence of bottles, other containers or the remains of food. These are usually found at campsites and other picnic or rest sites or along trails.
- The majority of single-incidence fires set by children are related to them playing with matches. These fires usually occur near settled areas.

3. ARSON -- INCENDIARY DEVICES

- The novice arsonist usually uses gasoline, therefore gasoline containers and rags are the items most likely to be found at or near the fire.
- Most incendiary devices using cigarettes are made by binding matches and cigarettes with wire, string, tape or rubber bands. This evidence is often destroyed by fire, but a careful search may turn up fragments of these bindings. The remains of a match book should trigger further investigation.
- Candle wax soaked into the soil is a near-certain indicator of arson, however it is often difficult to detect.
- Be aware of multiple starts. Do not be satisfied with one origin, if there appears to be more.

CONDUCTING AN INVESTIGATION

- Upon arrival, examine scene and contain if necessary, i.e., stopping source of pollution, extinguishing fire, etc.
- Survey scene to determine course of action. Look for possible violation(s) and cause(s). What evidence is there? Suspect(s), witness(es) present?
- If two or more investigations, one should collect evidence (exhibit person) - other to interview people and take statements. Use notebooks to record all pertinent information.

INVESTIGATION:

- **Statements:** Take as soon as possible. Caution suspected violators by reading the Warnings. Apply Charter of Rights if person could be considered detained or under arrest. Take verbatim if possible and have statements signed and dated. Ensure names, addresses, dates of birth, etc. are correct. Check identification if possible.
- **Evidence:** Avoid contaminating evidence; do not pick it up with bare hands. Use a stick, a knife or other device. Wear gloves if you have to pick it up with your hands. Use clean bags or containers. Containers may be obtained from the local R.C.M.P. Other containers may be used if cleaned. Identify and seize, marking/packaging with initials of investigator, date and time, and note details in notebook. Continuity of possession, the investigator must be assured that the exhibit material offered in court is the material found and that no substitutions or changes have occurred. Packaging exhibits obtained from different sources or which are subject to contamination should be packaged separately to facilitate a comprehensive examination.
Conveyance:
 - By hand (avoid excessive handling);
 - Public Carrier (seal exhibit to ensure no tampering);
 - Registered Mail (must be by registered, if sending by mail).
- **Photographs:** Take immediately at scene, using colour. Take close-up, distant and consider aerial shots. Take sufficient to accurately depict the scene. Keep photos "pure" - i.e., no extraneous items (Ministry vehicles, people, etc.) not connected with the scene. Include violators if possible. Consider use of video camera. Note details in notebook.
- **Sketches:** Do one or more, i.e., close-up and an overall sketch. Include all pertinent data - data, location, weather (if applicable), compass point, distances, place scale at bottom, identify objects and sign. Transfer the rough sketch to a to-scale drawing for court purposes. Keep rough sketch in file.
- Conduct follow-up investigation if required - i.e., interview witness(es) or violator(s), to re-examine the scene and take further photos if necessary.
- If there is sufficient evidence, lay charges.
- Thoroughly research the corporate structure to ensure the correct company/officers are being charged.
- This approach is a generic one. The sequence shown is a guide only and may be done in a different order as determined by the nature of your investigation.

INVESTIGATOR'S CHECKLIST

SURVEY SCENE AND CONTAIN
ADVISE OTHER NECESSARY AGENCIES (POLICE, MOE, DFO, FIRE)
EXAMINE SCENE FOR VIOLATION(S) AND CAUSE(S)
USE NOTEBOOK
STATEMENTS - VIOLATORS
STATEMENTS - WITNESSES
EVIDENCE COLLECTION (ONE PERSON ONLY)
SEARCH WARRANT REQUIRED?
PHOTOGRAPHS - CLOSE-UP, DISTANT, AERIAL - RECORD
SKETCHES - CLOSE-UP, DISTANT, DETAILS
TICKET ISSUED?
INFORMATION IN FORM 2 AND SUMMONS REQUIRED?
EVIDENCE TO LAB(S)
SUMMONS/SUBPOENAS SERVED ON VIOLATOR(S), WITNESS(ES)
PREPARE INVESTIGATION FILE
PREPARE SCALE DRAWING(S)
DEVELOP PHOTOGRAPHS AND IDENTIFY
FURTHER INVESTIGATION?
PREPARE REPORT TO CROWN COUNSEL (RCC)

CAMPFIRE REGULATIONS

- You may not light a campfire:
- where signs prohibit fires, these signs may be posted by the Ministry of Forests for the owner or tenant of the property;
 - within 3 m of any log, stump, dead snag or tree;
 - within 15 m of any wooden building, or any flammable material, including logging debris;
 - when strong winds are blowing;
 - when Ministry of Forests restrictions are in effect.
- When building the campfire:
- all flammable material must be scraped away down to mineral soil and for at least 1 m around the fire;
 - the size of the campfire must not exceed 1 m in height and 1 m in diameter.
- When the campfire is burning:
- a suitable shovel or an 8-litre pail or container capable of holding a similar amount of water must be kept nearby at all times;
 - the fire must be attended at all times, and completely extinguished on departure.
- The Ministry of Forests has the right to:
- order any person to extinguish a fire;
 - impose fire restrictions at any time by publishing notices in local newspapers and by announcements on TV and radio.
- NOTE: Stoves using gasoline, propane or briquets, or fire set in approved, permanently enclosed campsite fireplaces, are not affected by these regulations.

Insert FS 260 on this page, changing FL to FS and removing "and Lands"

FIRE ASSESSMENT

Points to include in contacting the District Fire Control Officer upon arrival at fire site:

- Crew name
- Fire Number
- Spread (Fire Intensity Rank)
- Control Ease
- Priority for Action
- Size
- Fuel Types
- Duff Layer
- Stand Description
- Water
- Resources Required for Control
 - number of men required
 - amount of equipment required
- Radio Schedule (Check-in)
- Estimated Time for Completion
 - of control
 - mop-up
 - patrol

FIRE INTENSITY RANK

Rank	Frontal Fire Intensity (kW/m)	Head Fire ¹		Description of Fire Behaviour Characteristics and Fire Suppression Interpretations	Fire ² Weather Index (FWI)
		Flame Length (m)	Flame Height (m)		
1	<10	<0.2	<0.1	Smouldering ground or creeping surface fire. Firebrands and going fires tend to be virtually self-extinguishing unless high Drought Code (DC) and/or Buildup Index (BUI) values ³ prevail, in which case extensive mop-up is generally required.	0-3
2	10-500	0.2-1.4	0.1-1.0	Low vigour surface fire. Direct manual attack at fire's head or flanks by fire fighters with hand tools and water possible. Constructed fire guard should hold.	4-13
3	500-2000	1.4-2.6	1.0-1.9	Moderately vigorous surface fire. Hand-constructed fire guards likely to be challenged. Heavy equipment (bull-dozers, pumpers, retardant aircraft, skimmers, helicopter with bucket) generally successful in controlling fire.	14-23
4	2000-4000	2.6-3.5	1.9-2.5	Highly vigorous surface fire or passive crown fire (torching). Control efforts at fire's head may fail.	24-48
5	4000-8000	3.5-4.8	2.5-3.4	Extremely vigorous surface fire or active crown fire. Very difficult to control. Suppression action must be restricted to fire's flanks. Indirect attack with aerial ignition (i.e., helitorch and/or AID dispenser) may be effective.	29-33
6	> 8000	> 4.8	> 3.4	"Blow-up" or "conflagration" type fire run; violent physical behaviour probable. Suppression actions should not be attempted until burning conditions ameliorate.	> 34
¹ Surface fire only. Flame height based on flame length and a 45° angle. ² Applicable to mature jack pine stands on level ground. ³ DC > 300 and/or BUI > 40. Prepared by Martin E. Alexander, CFS-NoFC, Edmonton, Alta.					
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FWI SYSTEM INTERPRETATION CHART

CODE/INDEX	INTERPRETATION
FFMC	
Less than 77	Generally, a fire will not start without a concerted effort. Approximately 50% of ignition sources will start fires. Easy ignition of fuels. Almost 100% of ignition sources will ignite forest fuels.
77-86	
More than 86	
Greater than 96	
ISI	
Less than 10	When FFMC is less than 86, fire spread is generally not great. Expect rapid spread rates which escalate rapidly as the FFMC increases.
Above 10	
DMC	
Less than 35	Do not expect a great deal of involvement of fire in this layer. Above this level one can expect more intense fires.
DC	
0-300	Very little involvement of this fuel in most fires. Increased involvement with fires, becoming more intense and mop-up problems increasing. Extensive involvement of the fuel layer. Fires are intense with difficult mop-up problems due to the depth of the fires.
300-450	
500+	

BEAUFORT SCALE FOR ESTIMATION OF WIND SPEEDS

When suitable instruments are lacking or when the instruments are not in operating condition, wind speeds can be estimated with reasonable accuracy by observing common effects of the wind, according to the following guide:

Scale No.	Speed Range km/hr.	Descriptive Term	Observed Wind Effects
0	Less than 2	Calm	Smoke rises vertically.
1	2-5	Light air	Direction of wind shown by smoke drift but not by wind.
2	6-11	Light breeze	Wind felt on face; leaves rustle; vanes moved by wind.
3	12-19	Gentle breeze	Leaves and small twigs in constant motion; wind extends light flag.
4	20-29	Moderate breeze	Raises dust and loose paper; small branches are moved.
5	30-39	Fresh breeze	Small trees in leaf begin to sway; crested wavelets on inland waters.
6	40-50	Strong breeze	Large branches in motion; whistling in telephone wires; umbrellas used with difficulty.
7	51-61	Near gale	Whole trees in motion; inconvenience felt walking against wind.
8	62-74	Gale	Breaks twigs off trees; generally impedes progress.
9	75-87	Strong gale	Slight structural damage occurs, e.g., shingles, TV antennae blow off roofs.
10	88-101	Storm	Seldom experienced inland; trees uprooted, considerable structural damage.
11	102-116	Violent storm	Very rarely experienced; widespread damage.

REQUISITION FORM

PERSONNEL	MACHINERY	EQUIPMENT
CREW BOSSES	BULLDOZERS	SHOVELS
FIRE FIGHTERS		GRUB HOES
FIRST AID		PULASKI'S
P.S.O.		SKIDDERS
SNAG FALLER	TANK TRUCKS	POWERSAW UNIT
OTHER		PUMP UNIT
	OTHER	GAS
		MIX
		MIX
LUNCHES		HOSE
WATER BAGS		RUBBER 1 1/2"
HEADLIGHTS	EQUIPMENT FUEL	RUBBER 1"
DISPATCH TO	DISPATCH TO	LINEN 1 1/2"
TIME REQUIRED	TIME REQUIRED	LINEN 1"
OVERNIGHT		SPECIALIZED EQUIPT.
BED ROLLS	PORTAPHONES	EXTRA NOZZLES
TENTS	1000-GAL. TANK	EXTRA 3-WAYS
FOOD	BLADDER	GARDEN HOSE NOZZLES
MEN	80-GAL.	
DAYS	300-GAL.	
MESS KITS	45-GAL. DRUMS	WATER THIEVES
GAS STOVES	OTHER	IRRIGATION ADAPTORS
FLASHLIGHTS		GRAVITY FUNNEL
INSECT DOPE/COILS		DRIP TORCHES
OTHER		BURNING FUEL
		OTHER
FIRST AID EQUIPMENT		
E.T.V.	AMBULANCE	OTHER
FIRST AID KITS	TRAILER	

HELICOPTER SIZES

LIGHT HELICOPTERS -- one to five passenger seats -- 500-1000 lbs. lift.

A *minimum* 75-foot diameter clearing is required around each landing pad to allow a safe margin.

- Hughes 500 - rotor diameter 26.4 feet;
- Bell 206B - rotor diameter 33.3 feet.

MEDIUM HELICOPTERS -- five to fifteen passenger seats -- 3000-4500 lbs. lift.

A *minimum* 100-foot diameter clearing is required around each landing pad to allow a safe margin.

- Bell 206L1 - rotor diameter 37 feet;
- Bell 204 - rotor diameter 48 feet;
- Bell 205 - rotor diameter 48 feet;
- Bell 212 - rotor diameter 48 feet;
- Sikorsky S-55T - rotor diameter 53 feet.

HEAVY HELICOPTERS -- sixteen or more passenger seats -- 10,000-14,000 lbs. lift.

A *minimum* 120-foot diameter clearing is required around each landing pad to allow a safe margin.

- Sikorsky S-61L - rotor diameter 62 feet.

NOTE: Lifting capacity depends on fuel load, machine weight, temperature and elevation.

HELICOPTER	LANDING GEAR	WIDTH	LENGTH
Bell 206B	Skids	6.3 feet	8 feet
Bell 206B	Skids with extensions	6.3 feet	9 feet
Bell 206L1	Skids	7.3 feet	9.6 feet
Hughes 500	Skids	7.5 feet	9.9 feet
Bell 204	Skids	8.2 feet	11 feet
Bell 205	Skids	8.2 feet	11 feet
Sikorsky S-55T	Wheels	Front 3 feet, rear 12 feet	Front to rear 10 feet

BURNING WITHOUT A PERMIT

Place
Date
Time

John Doe,
Address.

Dear Sir:

You are hereby instructed to take appropriate action immediately to extinguish the fire presently burning on . . . (southwest quarter of Lot 2222, KDYD) . . .

Please be advised that setting out, starting or kindling a fire during the close season, without first obtaining a Permit, as per Section 110 of the *Forest Act* is a contravention of the *Forest Act* and may be dealt with accordingly.

Yours truly,

(Signed)

Forest Officer.

Received: _____

FS 1022-29 PRO 83/3

INADEQUATE FIRE ACTION BY OCCUPANT

Place
Date
Time

Occupant,
Address.

Dear Sir:

Regarding Fire presently burning on . . . (Lot _____, TS X _____, etc.) . . .

Please be advised that the action you have taken toward controlling and extinguishing this fire is inadequate and below the limit of your obligation.

You are therefore instructed to place at the disposal of . . . (designated Forest Officer or Fire Foreman, etc.) . . . commencing at . . . (hour, day, year) (insert the number of men, up to total obligations if necessary and/or such of his equipment that is required) . . .

The above instructions will remain in effect until further written notice from a Forest Officer.

Yours truly,

(Signed)

Forest Officer.

Received: _____

FS 1022-31 PRO 83/3

**FIRE ESCAPED OR THREATENING
ESCAPE FROM BURNING PERMIT**

Permittee, Place
Date
Address. Time

Dear Sir:

Regarding the fire(s) resulting from your burning under Burning Permit _____
on _____

This is to confirm that your obligations under the burning permit require that you supply up to ____ men and any equipment specified in the burning permit or presently in use on the area that may be of use in suppressing the fire(s).

The men and equipment as specified above must be maintained on the area as long as required to suppress (or extinguish) the fire. Men and equipment must not be released from fire suppression duties without the written permission of a Forest Officer.

Yours truly,
(Signed)
Forest Officer.

Received: _____

FS 1022-35 PRO 83/3

FIRE ON OCCUPIED AREA

Place
Date
Occupant, Time
Address.

Dear Sir:

Regarding Fire presently burning on . . . (Lot _____ , TS X _____ , etc.) . . .

Please be advised that the *Forest Act* requires that you diligently attend to the controlling and extinguishing of this fire.

Your obligations include the full number of men employed by you on the operation and such equipment in use on the occupied area that is suitable and necessary to fight the fire.

Men and equipment must not be released from fire suppression duties without the written permission of a Forest Officer.

Yours truly,
(Signed)
Forest Officer.

Received: _____

FS 1022-30 PRO 83/3

RELIEVING OCCUPANT OF OBLIGATIONS

Place
Date
Time

Occupant,
Address.

Dear Sir:

With respect to the fire now burning on . . . (Lot _____, TSL _____, etc.) . . . this will authorize you to resume . . . (logging, sawmilling, etc.) . . . operations under the following conditions:

1. Commencing tomorrow morning . . . (state number of men) . . . plus . . . (state equipment required) . . . are to continue patrol and mop-up of the fire between the hours of . . . (state times for day shift) . . . and . . . (state number of men) . . . are to patrol between . . . (state times for night patrol) . . .
2. Should the fire escape, or threaten to do so, immediate control action must be taken by an adequate crew up to the total of those employed on the occupied area at the time the fire started.

These instructions will remain in effect until further written notice is issued by the Forest Officer.

Yours truly,
(Signed)
Forest Officer.

Received: _____
FS 1022-32 PRO 83/3

RAILROAD FIRES

Place
Date
Time

To Roadmaster _____ .

Dear Sir:

You are hereby instructed to take the necessary action to control and extinguish the fire that is presently burning at . . . (Mile _____, Sub. _____).

The crew must be maintained on the fire at all times until the fire is out.

The above instructions will remain in effect until further written notice.

Signed _____

for _____
Div. Fire Inspector, C.T.C.

(For further follow-up notices regarding letting part of the crew off, etc., follow basic outline of instructions for Occupation fires.)

(For Provincial Charter [B.C.] Railways, sign as "Forest Officer" rather than "Div. Fire Inspector".)

FS 1022-34 PRO 83/3

ALLOWING RESUMPTION OF OPERATIONS

Place
Date
Time

Occupant,
Address.

Dear Sir:

With respect to the . . . (name if available) . . . fire . . . (burning or which burned) . . . on . . . (Lot _____, TSL _____, etc.) . . ., this notice relieves you of present control action and authorizes you to resume your operations in full.

Please note, however, that should this fire escape or threaten to do so, necessitating further control action, your obligations under the *Forest Act* will again be in effect.

Yours truly,

(Signed)

Forest Officer.

Received: _____

FS 1022-33 PRO 83/3

**FOR IMMEDIATE SUSPENSION --
242 ORDER ISSUED ON-SITE**

Place
Date
Time

To Licensee

Dear Sir:

Our inspection conducted on this date on _____ has found your operation does not comply with B.C. Reg. 557/78, Forest Fire Prevention Regulations. The deficiencies and/or contraventions are listed on the attached Inspection Report No. _____ and must be rectified immediately.

Accordingly, you are hereby notified that all rights conferred under _____ are suspended effective _____, 19__ pursuant to Section 60 of the *Forest Act*.

This suspension shall remain in effect until the deficiencies and/or contraventions as listed on the Inspection Report have been rectified.

Signed _____

Forest Officer

Date _____

Received: _____

Signature of Licensee/Agent

METRIC CONVERSION TABLE

Area

1 acre 0.4047 ha	1 square foot 0.0929 m ²
1 square mile 2.5900 km ²	1 square yard 0.8361 m ²
1 square inch 6.4516 cm ²	

Volume

1 drop 0.05 ml	1 fluid ounce 28 ml
1 teaspoon 5 ml	1 cup 227 ml
1 tablespoon 14 ml	1 pint 0.57 l
	1 quart 1.14 l
	1 gallon 4.5 l

Temperature

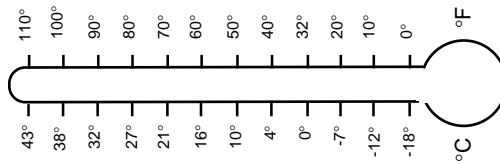
When using sliding scale, note that Fahrenheit temperatures have been rounded off. For exact values, the formula is:

Fahrenheit to Celsius

Subtract 32 from number of °F, then multiply by 5/9

Celsius to Fahrenheit

Multiply °C by 9/5, then add 32.



METRIC CONVERSION TABLE cont'd.

Length

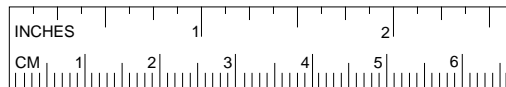
1 inch.....	2.54 cm	1 yard	0.9144 m
1 foot.....	30.48 cm	1 mile.....	1.6093 km

Fractions

1/32".....	0.7938 mm	1/2".....	12.7000 mm
1/16".....	1.5875 mm	9/16".....	14.2875 mm
1/8".....	3.1750 mm	5/8".....	15.8750 mm
3/16".....	4.7625 mm	11/16".....	17.4625 mm
1/4".....	6.3500 mm	3/4".....	19.0500 mm
5/16".....	7.9375 mm	13/16".....	20.6375 mm
3/8".....	9.5250 mm	7/8".....	22.2250 mm
7/16".....	11.1125 mm	1".....	25.4000 mm

Mass (Weight)

1 ounce (avoir.).....	28.350 g	1 short ton	
1 ounce (troy).....	31.103 g	(2000 lbs.).....	907.185 kg
1 pound (avoir.).....	453.592 g	1 long ton	
1 pound (troy).....	373.242 g	(2240 lbs.).....	1016.047 kg





Province of
British Columbia

Ministry of
Forests



FOREST OFFICER FIELD GUIDE

NAME _____

OCCUPATION _____

HEADQUARTERS _____

DATE OF FIRST ENTRY Y M D
_____ | _____ | _____

DATE OF LAST ENTRY Y M D
_____ | _____ | _____

DO NOT PANIC IF CAUGHT IN A FIRE. . . .
**KEEP CALM AND
THINK CLEARLY**

- DO NOT RUN.
- Move into an open area, or an area which has already been burned.
- Select the lowest spot (no caves).
- Do not move upwind or uphill of the fire.
- Always stay with your crew.
- Stay in a vehicle, if one is available.
- Watch for falling snags.

W-A-T-C-H O-U-T

- W**EATHER dominates fire behaviour, so KEEP INFORMED.
- A**CTION based on what the fire is doing and could do.
- T**RY OUT. . . . Test at least TWO escape routes, and be extremely careful when working above the fire.
- C**OMMUNICATE Keep in contact with your crew, your boss and other fire fighters.
- H**AZARDS Watch for snags, flash fuels and steep narrow draws (the chimney effect).
- O**BERVE changes in wind (direction or speed), humidity and clouds.
- U**NDERSTAND. . . . your instructions, and make sure yours are understood.
- T**HINK. . . . clearly and be alert.
Act BEFORE your situation becomes critical.