Falling Plan

CHECKLIST

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About Energy Safety Canada

Energy Safety Canada is the oil and gas industry's advocate and leading resource for the continuous improvement of safety performance. Our mission is to help companies achieve their safety goals by providing practices, assessment, training, support, metrics and communication.

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ACKNOWLEDGEMENT

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Preface

FALLING PLAN CHECKLIST

The Falling Plan Checklist has been designed to identify the act, code and regulation that must be adhered to, as well as to provide a checklist to identify the requirements that would be applicable to site work area and activities. The Falling Plan Checklist is provided as a framework to develop a Falling Plan that is applicable to the site conditions. As provided on the face page of the Checklist, there is a provision for the user(s) to amend, delete, and change sections of the Falling Plan, as there is an ongoing process for planning and hazard recognition throughout the project. It is understood and expected that the Falling Plan will be reviewed and revised throughout the length of the project, as dictated by changes in site conditions.

FALLING PLAN REVISION CONTROL	
DEFINE WORK AREA:	
Date Reviewed/Updated:	By:

Table of Contents

1.0 Objective

In relation to felling trees, this project will entail:

☐ Heli-portable hand cut ☐ Mulcher and hand cut clean-up ☐ Right of way

☐ Survey hand cut ☐ Road/Lease construction ☐ Other (describe)

_____

2.0 Map(s) are clear, current, accurate and thorough

The QFS will verify that all applicable maps have been included in the Falling Plan, which may include the following information:

☐ Site overlay ☐ Forest health maps

☐ LiDAR ☐ Wildlife concerns

☐ Forest cover ☐ Radio dead zones

☐ Site hazards ☐ Beetle kill areas

☐ Bogs ☐ Slopes

☐ Blow-down areas ☐ _____

3.0 Management of Change (MOC)

The MOC process shall ensure hazards are identified, risks are assessed, and controls are implemented, and all changes are documented and communicated to all workers on site.

The Qualified Falling Supervisor (QFS) will use the following methods to continually update workers about changing work circumstances that affect them:

☐ Review and update hazard assessments

☐ Review or revise safe work procedures

☐ Documented meetings

☐ Report unsafe of hazardous conditions

☐ Change of ownership is documented

☐ Falling Plan is updated to match current field conditions

☐ Radio communication plan

4.0 Hazards Assessment/Work Planning

4.1 GENERAL ASSESSMENT PROVISIONS

☐ Compliant to BC OHSR 26.2, WCA 115(2)(b) and 117(2)(a)

☐ Cutting area, drop zones, and helipads assessed by QFS as per BC OHSR 26.22.1

☐ Follow Safe Work Procedures (SWP) as outlined in the BC OHSR part 26, the BCFTS Info Flips books #1 and #2, and the Oil & Gas Faller Training Standard, including when conducting special or innovative harvesting techniques

☐ Specific assessment and planning for higher risk areas

☐ Instructions are communicated and documented to all Fallers as to what is expected when a high-risk scenario is encountered (i.e. stop work and get the QFS)

☐ Field inspection intervals continually updated to match risk from such factors as new fallers, steep slopes, difficult lean, areas of danger trees, burn areas, blowdown, beetle kill, new equipment, simultaneous operations, etc.

☐ The manner of field supervision shall be “Active Supervision” (see definition in Glossary), throughout the duration of each phase of the work

☐ Site drawings posted will include site layout, first aid location, emergency transportation provisions, and the evacuation marshalling station

4.2 USING THE PROGRAM

☐Helicopter flyovers documented compliant to WCA 115(2)(b)

☐ Hazard scouting team including the QFS via driving/walking

☐ Watercraft

☐ _____

☐ _____

4.3 TERRAIN AND SLOPE HAZARDS

☐ Type 5-6 terrain present and has suitable control plans written and communicated. For more information, please refer to the CAGC Terrain Assessment Guideline

☐ Type 3-4 terrain is present and has suitable control plans written and communicated. For more information, please refer to the CAGC Terrain Assessment Guideline

☐ Terrain reassessed as work conditions change

☐ Ground roughness including rocky areas, loose soils, or materials

☐ Impact of operations upon terrain stability

☐ _____

☐ _____

☐ _____

☐ _____

4.4 TIMBER TYPE HAZARDS

☐ Risks from over-mature aspen

☐ Risks from beetle-kill areas

☐ Risks from fire zones

☐ Risks from danger trees

☐ Difficult lean trees

☐ Stability assessed per BC OSHR 26.11

☐ _____

4.5 WIND/WEATHER HAZARDS

☐ Process documented for re-assessing dangerous tree hazards due to wind and weather conditions

☐ Management must re-assess impact of wind/storms on canopy

☐ Crew is prepared and equipped to cope with ground conditions changed by weather

☐ _____

☐ _____

4.6 SIMULTANEOUS OPERATIONS (SIMOPS)

☐ Control plan is documented to ensure adjacent work groups are always aware of new work teams operating in the area

☐ Workers have been trained in the plan and related procedures

☐ Procedures include the location for fallers

☐ Procedures include entry into a falling area

☐ _____

☐ _____

4.7 HIERARCHY OF HAZARD CONTROLS

4.7.1 ELIMINATE THE HAZARD:

☐ Reroute the cutting area to avoid a hazard

☐ Remove danger trees from the helicopter drop zone

☐ _____

4.7.2 ADMINISTRATIVE CONTROLS TO MINIMIZE THE LIKELIHOOD OF THE HAZARD:

☐ Cut sections of the line in a different season i.e. winter versus summer to allow for equipment to be used on frozen terrain, instead of hand falling

☐ Follow accepted hand falling Safe Work Procedures (SWP) as outlined in the BC OHSR part 26, the BCFTS Info Flips books #1 and #2, and the Oil & Gas Faller Training Standard

☐ Written safe work procedures to avoid unnecessary brushing

☐ Written safe work procedures require clearing escape routes

☐ Written safe work procedures require moving away at least three metres (10 feet) from the base of the tree being felled, after making the final cut

☐ Written safe work procedures define the sequence of hand cut on a line or area i.e. falling danger trees as the general falling

progresses, falling drop zones and or heli-pads, on mulched lines

☐ Written safe work procedures to define when to have a QFS travel the line/area to identify which hazard trees need to be removed and when the removal should happen

☐ Written procedures for falling and bucking operations may include dangerous trees or logs

☐ Written procedures for harvesting trees (clearing of leases/roads or pipeline right-of-ways), if applicable

☐ Written procedures for operations that may present similar types of working conditions and hazards as forestry operations

☐ Use properly guarded equipment to overcome falling difficulties that may present significant hazards to the hand faller, i.e. burn areas, blow down, beetle-attacked stands

☐ Use chainsaw winches or other means to pull down hung-up trees

4.7.3 PERSONAL PROTECTIVE EQUIPMENT (PPE)

☐ PPE used as a last resort once the other three control types were applied

☐ The PPE shall be appropriate to effectively control the identified hazards

5.0 Organizational Chart Show Clear Chain of Command

☐ Names and phone numbers of persons responsible for health and safety for each company and those involved in managing the operational phases of the project

☐ Documentation is available showing when the contact information was last verified or updated

☐ _____

6.0 Roles and Responsibilities

6.1 EMPLOYER'S RESPONSIBILITIES

☐ To ensure the health and safety of their workers and other workers on the worksite

☐ To ensure workers are aware of all known or reasonably foreseeable hazards

☐ Establish policies and programs applicable for the legislation for the jurisdiction in which the work is being carried out

☐ To control hazards (both physical and human)

☐ To provide information, instruction, training, and supervision

☐ To provide coordination on multi-employer worksites (e.g. confirm a written agreement with prime contractor is in place, ensure that activities are coordinated, establish, and maintain a system to ensure compliance of all employers on site)

6.1.1 MULCHER OPERATOR'S KNOWLEDGE AND SKILLS ASSESSMENT

The Employer will have documented competency assessments on every mulcher operator's knowledge and skill level, including the following:

☐ Operator's familiarity with manufacturer's operational manual

☐ Model-specific limitations (i.e. slope tolerance)

☐ Pre-use inspections

☐ In-field equipment servicing and refuelling

☐ Identification of hazardous conditions

☐ Emergency procedures such as equipment rollover or fire

☐ _____

☐ _____

6.2 MULCHER OPERATOR'S RESPONSIBILITIES

☐ Operate the equipment in a safe manner in accordance with the manufacturers' specifications and established safe work procedures

☐ Conduct pre-use inspections

☐ Routinely service and refuel in-field equipment

☐ Follow applicable emergency procedures for equipment rollover, fire or other emergencies

☐ Reassess Hazard Identification, assessment and mitigation as needed as per BC OSHR 26.29.3 subsections 1 & 2

☐ _____

6.3 FALLING SUPERVISOR'S RESPONSIBILITIES:

A designated, competent Qualified Falling Supervisor (QFS) must be assigned to all Falling/Bucking operations. In addition to the general duties of supervisors outlined in Section 6.4 of this document a QFS has at minimum the following additional responsibilities:

☐ Actively supervise and engage workers

☐ Have knowledge of seismic operations

☐ Ensure the falling and bucking operations are well planned and conducted

☐ Participate in the site hazard assessment, and in the development of the site-specific falling plan

☐ Ensure safe work procedures are utilized on site

☐ Ensure a hierarchy of controls is implemented for each hazard identified in the hazard assessment

☐ Ensure additional crews subsequently entering the work area are not at risk from danger trees

☐ Ensure the competency of every faller on site has been verified

☐ Communicate the contents of the falling plan to affected workers

☐ Ensure that all fallers are inspected on a frequency appropriate to the risk associated with their work assignments and skill level

☐ Keep records of all inspections conducted, with copies available at the worksite

6.4 SUPERVISOR'S RESPONSIBILITES

☐ Ensure the health and safety of their workers

☐ Be knowledgeable about the Act, the Regulation, and the Guidelines

☐ Know the work process, the hazards involved and effective control measures for the hazards

☐ Ensure their workers are made aware of all hazards known or reasonably foreseeable

☐ Ensure workers comply with the Act, the Regulation, etc.

☐ _____

6.5 WORKER'S RESPONSIBILITES

☐ Take reasonable care to protect themselves and others

☐ Assist their employers in the identification of hazards, and implementation of hazard controls

☐ Follow safe work procedures

☐ Follow established procedures

☐ Work in compliance with the dangerous tree guideline and the site-specific falling plan

☐ Perform their work to the level to which they have been trained and certified

☐ Report any unsafe conditions or unsafe acts

7.0 Training Requirements are Outlined

☐ Workers are informed of the assessed hazards compliant to WCA 117(2)(a)

☐ All fallers are certified, compliant to BC OHSR 26.21, including site competency assessments

☐ Supervisors are properly trained in their roles and responsibilities

☐ Equipment operator (especially mulcher operator), compliant to regulations from applicable jurisdiction in which the work is being carried out. (i.e. BC OHSR 16.4)

☐ If a Danger Tree Assessor is on site, the Danger Tree Assessor will be certified from an approved course

☐ _____

☐ _____

8.0 Orientations

☐ General orientation includes the right and obligation to refuse unsafe work as per the applicable legislation for the jurisdiction in which the work is being carried out

☐ Site specific hazards and method for summoning first aid

☐ Safety near helicopters

9.0 Written Safe Work Procedures are Available Onsite

☐ Mulching

☐ Hand Falling must cover:

- ☐ General hand falling requirements
- ☐ Danger tree or specialized falling situations (i.e. falling drop zones or heli-pads)
- ☐ Overcoming falling difficulties (limb-tied tress, hang-ups etc.)
- ☐ BC OHSR 26.23 (1)(2 a-j) cover the minimum written procedures for hand falling operations
- ☐ BC OHSR 26.24 (1-8) outlines further key responsibilities that must be addressed in the falling process
- ☐ Compliance with the BC Faller Training Standard Info Flips books #1 and #2

☐ Right and obligation to refuse unsafe work per the applicable jurisdiction where work is being conducted (i.e. NC OHSR 3.12 (1-5) and 3.13 (1-2))

☐ Working Alone and Isolated Work

☐ Journey Management Procedures

☐ _____

☐ _____

10.0 Equipment Requirements

☐ Define what is required for the jobs

☐ Inspection and maintenance of equipment

☐ Equipment is suitable in size or number for the task at hand

☐ _____

11.0 Meetings

As required, the following meetings shall be conducted:

☐ Pre-job meetings

☐ Coordination (Prime Contractor/Contractor meetings)

☐ Daily work plan meetings

☐ Site Health and Safety Committee meetings

☐ Tool-box meetings

☐ _____

☐ _____

12.0 Work Coordination

☐ Supervisors protect their workers from nearby, simultaneous work operations

☐ Traffic control along roadways/lines i.e. areas in which lines/falling zone can be accessed by others is (check one):

- ☐ Included
- ☐ Not Applicable

☐ _____

13.0 Emergency Response Procedures (ERP)

☐ Contents of all emergency protocols shall be current and communicated to all workers on site

☐ ERPs must provide guidelines for Report any unsafe conditions or unsafe acts (HETS) workers that ensure appropriate clearance between the injured party and the helicopter, from the risk of canopy debris dropping onto workers in the area

14.0 Verification Requirements

☐ Verification of Falling Plan to ensure it is effective and representative of actual field execution as written for Contractors, Supervisors, Fallers, and Workers, at the site

☐ Prime contractors must establish and maintain a system or process that will ensure the QFS is in compliance with the Falling Plan

☐ _____

Glossary

TERM	DESCRIPTION
Active Supervision	Active Supervision is defined as providing a physical presence in the work area at intervals suitable to the risks at hand, and to be physically available to give additional guidance as needed. Active Supervision includes taking all reasonable care to prevent the occurrence of an incident or event. Active Supervision includes providing information, instruction, training, supervision, verification of knowledge, and correction of all known hazards.
Buckers	Certified chainsaw operators capable of cutting trees on the ground and restricted to falling brush under four (4) inches in diameter at breast height (DBH).

Employer	Any person who has one or more persons working for them in or about an industry, through either a hiring contract, or an apprenticeship contract. The contract can be written or oral, express, or implied, as identified by provincial legislation, regulations, and code.
Certified Fallers	"Certified Fallers" are capable of falling trees (refer to Tree) semi unsupervised, after being assessed and deemed competent in the timber type and terrain on that particular worksite.
HETS	Helicopter External Transport System
Prime Contractor	British Columbia: In relation to a multiple-employer workplace: a) the employer or contractor having authority to direct other contractors, who enters into a written agreement with the owner of that workplace to be the prime contractor for the purposes of this Part, or b) if there is no agreement referred to in paragraph (a), the owner of the workplace. (See BCWCA s. 106.118(1)) Alberta: • Prime Contractors are required on construction or oil and gas work sites (or a work site designated by a Director) with 2 or more employers or self-employed persons • The person in control of the work site shall designate in writing a person as the prime contractor of the work site • The name of the prime contractor must be posted in a conspicuous place at the work site. • If the person in control of the work site fails to designate a person as the prime contractor, the person in control of the work site is deemed to be the prime contractor • Establish, as far as it is reasonably practicable to do so, a system or process that will ensure compliance with this Act, the regulations and the OHS code in respect of the work site, that no person is exposed to hazards arising out of, or in connection with, activities at the worksite Saskatchewan: • "prime contractor" means the person who is the prime contractor in accordance with Section 3-13 • S.3.13(1) Every worksite must have a prime contractor if the worksite: a) has multiple employers or self-employed persons meets the prescribed circumstances (See SK Employment Act S-15.1(y), 3-13)
QFS	A person who has adequate training and experience in the recognition, evaluation, and control of hazards associated with falling operations and is assigned overall responsibility for administration of the falling activities. (See BC OSHR)
Safe Work Procedure	Provides specific, documented, step-by-step information to workers, recognized as the most effective approaches to minimize inquiries, incidents, and other negative outcomes.
Supervisor	A person who instructs, directs, and controls workers in the performance of their duties. (See BCOHS Regulation 1.1)

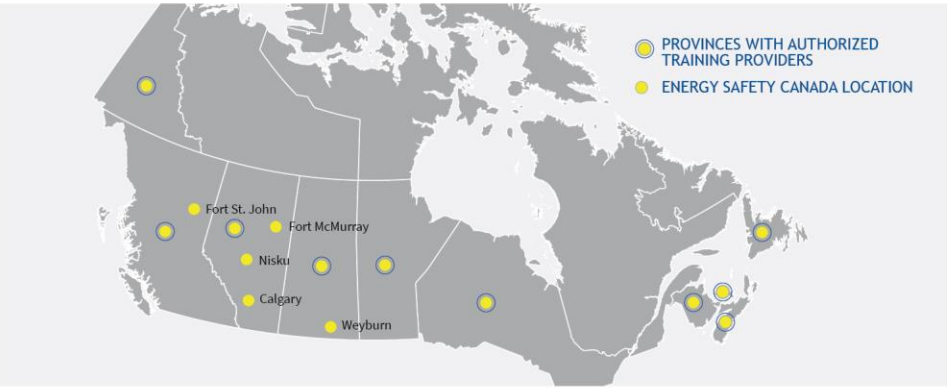
Terrain Types	Please refer to an accepted Terrain Assessment Guide.
Tree	A woody plant having one erect perennial stem (trunk) at least 10 centimeters in diameter at breast height or 1.5 meters above the ground, and over 3 meters tall.

SAFETY DOESN'T CLOCK IN AND IT DOESN'T PUNCH OUT. IT'S 24/7.

ENERGY SAFETY SERVICES:

- Virtual training
- Safety services
- Company consultations
- Data reports
- Certificate of Recognition

LOCATED WHERE YOU ARE:



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