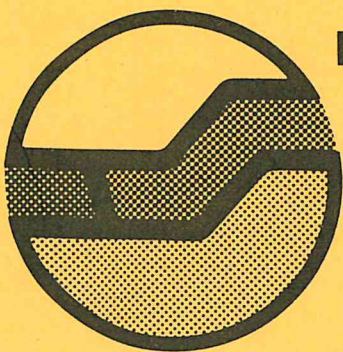


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CODE OF HARDWOOD LOGGING PRACTICE

1 FEBRUARY 1987



**DEPARTMENT OF CONSERVATION
AND LAND MANAGEMENT**

CODE OF HARDWOOD LOGGING PRACTICE

1 FEBRUARY 1987

**Department of Conservation and Land Management
50 Hayman Road
COMO WA 6152**

INTRODUCTION

The logging rules and instructions contained in this "Code of Hardwood Logging Practice" apply to all hardwood forest logging operations carried out on State forest and other Crown lands controlled by the Department of Conservation and Land Management. These operations may be carried out by the holder of a Departmental Permit or Licence and his agents or contractors, or by a contractor contracted to the Department of Conservation and Land Management.

Where specifications for the performance of the rules and instructions in this Code are required they are to be found in the Manual of Specifications covering the forest area in which logging operations are taking place.

These instructions may be amended from time to time, for example, following a change in Government or Department policy, and such amendments will come into force from the date of each amendment.

Breaches of this Code will be regarded as breaches of the appropriate Licence or Contract.

A handwritten signature in black ink, appearing to read 'Syd Shea', with a stylized flourish at the end.

Syd Shea
EXECUTIVE DIRECTOR

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NB: Where reference in this Code is made to the "Forest Regulations" these will continue to apply to all operations by virtue of Section 149 of the Conservation and Land Management Act 1984 until such time as new Regulations are made under that Act.

SECTION 1:

DEFINITIONS

In this Code of Logging Practice, unless the context requires otherwise:

- "Bush Foreman"** means the Operator's on-site representative with day to day responsibility for the performance of the Operator's servants, agents, employees or subcontractors,
- "CALM Act"** means the Conservation and Land Management Act 1984,
- "Catchment"** means an area draining into a given waterway or reservoir,
- "Cleandown"** means the process by which soil and other material is removed from vehicles and machinery. Water, air or brushes may be used for cleaning down, depending on whether mud, dust or vegetable matter is to be removed,
- "Coupe"** means an area reserved for cutting within a specified time period. A coupe may contain two or more sub-coupes,
- "Department"** means the Department of Conservation and Land Management established under the CALM Act,
- "Dieback Hygiene"** means any procedure or practise associated with an Operation that is designed to restrict the spread of Jarrah Dieback,
- "Extraction"** means the movement of forest produce from the position at which it is felled or cut to a position where it may be loaded onto a vehicle,

- "Fallers block"** means a cutting area, within a sub-coupe, allocated to a single faller,
- "Forest Officer"** means a forest officer as defined from time to time in the CALM Act,
- Forest Officer in Charge" and "FOIC"** means any forest officer for the time being or from time to time appointed in writing by the Executive Director to be in charge of any site or any part thereof,
- Forest Produce** means any log or log product that may be removed by an Operator from an Operation and includes sawlogs, poles, piles, chip logs, firewood, chips and any other product authorised by a Departmental Permit, Licence or Contract.
- "Hardwood Forest Areas"** means any area of land under the ownership, management or control of the Executive Director on which trees of the genus Eucalyptus are growing either naturally or artificially, and includes firebreaks, roads and tracks,
- "Hauling"** means the loading on vehicles and cartage of forest produce from loading points in or near the forest to a nominated delivery point,
- "Jarrah Dieback"** means a disease of certain native species of vegetation, including jarrah, caused by the root rotting fungus Phytophthora cinnamomi,
- "Jarrah Forest"** means any area of Hardwood forest dominated by the species Eucalyptus marginata,
- "Karri Forest"** means any area of Hardwood Forest dominated by the species Eucalyptus diversicolor,

"Large Fire Organisation"	means the planned deployment of Departmental resources in the event of a major wildfire
"Operation"	means any logging activity, on State forest or other Crown land under the control of the Department, that is authorised by either a Departmental Permit or Licence or by a written Contract between the Department and another party,
"Operator"	means any person or Company, including any servants, agents, employees or subcontractors of that person or Company, engaged in an Operation,
"Soil Dryness Index"	means a measure of soil moisture that reflects the flammability of heavy fuels. It indicates fire suppression difficulty.
"Soil movement"	means the movement of soil, in any quantity, during the process of extraction of logs,
"Stream Reserve"	means a strip of vegetation of a specified width located along a particular watercourse from which logging is excluded,
"Sub-Coupe"	means a cutting area situated within a self draining catchment. A sub-coupe may contain several fallers blocks,
"TIR Act"	means the Timber Industry Regulation Act 1926,
"Work"	means everything and anything that an Operator, under the terms of a Licence or Contract, and this Code of Logging Practice, is required to do in regard to the felling of trees and the preparation, extraction and cartage of the produce therefrom.

SECTION 2:

GENERAL

- 2.1 The Instructions contained in this Code shall be observed by all persons participating in any hardwood forest logging operation on land managed by the Department of Conservation and Land Management. If any such person breaches this Code, such a breach may be regarded as grounds for a Forest Officer raising objection to the continued employment of that person in the forest. In addition it may be regarded as a breach of the Permit, Licence or Contract.
- 2.2 An Operator shall observe all Acts of the State of Western Australia, and in particular, the Bush Fires Act 1954, the Conservation and Land Management Act 1984, the Inspection of Machinery Act 1921, the Machinery Safety Act 1974, the Road Traffic Act 1975, the Timber Industry Regulation Act 1926, the Workers Compensation Act 1912, the Wildlife Conservation Act 1950-79, the Agriculture and Related Resources Protection Act 1976-83, the Country Areas Water Supply Act 1947-76, and the Water Authority Act 1986, including all amendments to those Acts for the time being in force and any Act passed in substitution or in lieu thereof and all Regulations for the time being in force thereunder as well as this Code of Logging Practice.
- 2.3 Any power or function to be exercised by a Forest Officer under this Code may be exercised by any officer of the Department of Conservation and Land Management duly designated as such by the Executive Director.
- 2.4 Any person engaged in the cutting and/or removal of forest produce shall be in possession of a current Timber Workers Registration Certificate.

- 2.5 After the commencement of an Operation the Operator shall advise the Forest Officer in Charge by notice in writing, within 48 hours of such event, the name and address of any employee who is engaged by the Operator in cutting and/or removal of forest produce or who for any reason ceases to be engaged by the Operator in cutting and/or removal of forest produce.
- 2.6 The Department reserves the right to limit or otherwise control the hours of work and days of work of all personnel working in the forest. An Operator will take due note of any instruction from a Forest Officer in this regard and such instruction will be deemed to apply until revoked and will apply equally to an Operator and any of his employees.
- 2.7 An Operator shall exercise strict supervision and control over operations of all workers employed by him, with a view to:
- 2.7.1 Preventing any breach of the Conservation and Land Management Act and Regulations, the TIR Act and Regulations and this Code of Practice.
- 2.7.2 Preventing damage to other standing timber during felling extraction and hauling operations in accordance with current silvicultural prescriptions.
- 2.8 All operations carried out by, or on behalf of, an Operator in hardwood forest areas shall be carried out as directed by a Forest Officer. Any monetary penalties for breaches of this Code or for damage to or waste of timber in breach of the instructions of this Code will be deducted from any money due to the Operator, or failing that from the Operator's deposit.

- 2.9 An Operator and all persons authorised by him, in carrying out all aspects of this operation, shall follow and use only such paths, tracks, and roads in the hardwood forest areas as may be indicated to him by a Forest Officer.
- 2.10 An Operator shall not cut through, break down or otherwise interfere with any fencing or other improvements erected upon or adjacent to the hardwood forest areas.
- 2.11 An Operator shall keep closed all gates used and shall take all necessary action to prevent the ingress or egress of stock into or from any area within the hardwood forest areas enclosed by fences which may have been damaged as a result of his logging operations.
- 2.12 An Operator must ensure that all major roads as nominated by a Forest Officer are left open at the cessation of work each day, or if required, during the day, to allow access for fire control and administrative purposes. All other roads and tracks in a coupe or sub-coupe may be blocked in the course of logging operations but access must be restored to the satisfaction of the Forest Officer in Charge upon completion of logging.
- 2.13 An Operator shall at his own expense and without delay:
- (a) remove from all roads and tracks through or adjacent to the cutting area or from any land belonging to an adjoining owner all logs or other debris of any description; and
 - (b) make good any damage to fences, telephone lines or other improvements, resulting directly or indirectly from his operations.
- 2.14 When directed by the Forest Officer in Charge, an Operator may fell, cut and remove forest produce, on areas of State forest or other Crown land controlled by the Department subject to pastoral or other lease or holding,

provided always that the authority hereby given shall not relieve or be deemed to relieve the Operator from liability to lessees or holders in respect of any actionable damage caused by the Operator upon such pastoral or other leases.

- 2.15 An Operator is expected to have his work area in a tidy and workmanlike condition at all times but particularly when leaving the area. If a subsequent clean up is required the work will be done at the Operator's expense.
- 2.16 An Operator shall dispose of all litter, food scraps, refuse, unserviceable equipment or machinery, or other debris resulting from his operations in the hardwood forest areas at such place and in such manner and time as a Forest Officer shall direct. If a subsequent cleanup is required the work will be done at the Operator's expense.
- 2.17 An Operator shall observe any instruction by a Forest Officer and comply with any procedures laid down to restrict the spread of jarrah dieback. In particular an Operator shall ensure that equipment is provided to remove soil from logging machinery during the period of the Operation.

SECTION 3:

FELLING, TRIMMING AND CROSSCUTTING

- 3.1 All felling, trimming and crosscutting shall be carried out in such place, order, time and manner as the Forest Officer in Charge shall from time to time approve.
- 3.2 Felling, trimming and crosscutting can be done either by hand or with machine.
- 3.3 All hand fallers employed by the Operator must hold a current fallers registration certificate under the provisions of the Conservation and Land Management Act and strictly adhere to the provisions contained therein with regard to branding stumps and logs.
- 3.4 Demarcation of hand fallers blocks is required prior to the commencement of cutting. A maximum of two blocks per faller, each of no more than two weeks cutting are to be demarcated by the Bush Foreman and checked by a Forest Officer. A new block will not be commenced by the faller until one of the fallers blocks has been utilised to the satisfaction of a Forest Officer.
- 3.5 Felling by machines such as feller-bunchers or harvesters will be permitted only after specific approval for the use of each type of machine has been given by the Executive Director through the Forest Officer in Charge.
- 3.6 Operators of machines such as feller bunchers, harvesters or processors must be registered as Timber Workers for this class of equipment and approved as such by the Forest Officer in Charge.

3.7 If possible, areas of forest suitable for operation by approved machines will be made available. A maximum of two sub-coupes per machine or group of machines will be demarcated for operation at any one time. Further sub-coupes will not be worked until one of the previously allocated sub-coupes has been utilised to the satisfaction of a Forest Officer.

3.8 Extraction, erosion control and cleaning up must work progressively through fallers blocks and allocated sub-coupes.

3.9 Marking of Trees for Removal

- (a) Where trees are marked for removal an Operator shall fell and utilise only such trees as have been marked or otherwise indicated for the purpose by a Forest Officer. All such trees are to be felled if in the opinion of the Forest Officer in Charge they contain log produce designated as such under the conditions of the Operation.
- (b) An Operator shall not fell, damage or utilise any unmarked trees.
- (c) If an Operator wishes to cut unmarked trees to assist his operations, eg, widening vehicle tracks, extending landings, he shall refer the matter to the Forest Officer in Charge and such trees will not be cut until marked by a Forest Officer.

3.10 Marking of Trees for Retention

- (a) Trees to be retained as crop trees will be marked or otherwise indicated by a Forest Officer. All other trees in the coupe are to be felled if in the opinion of the Forest Officer in Charge they contain log produce designated as such under the conditions of the Operation.

- (b) An Operator shall not fell, damage or utilise any tree marked for retention by a Forest Officer.
- (c) If an Operator wishes to cut marked (retained) trees to assist his operations, eg, widening vehicle tracks, extending landings, he shall refer the matter to the Forest Officer in Charge and such trees will not be cut until released by a Forest Officer.

- 3.11 An Operator shall incur penalties at rates determined by the Executive Director for any wood contained in any trees felled by him in breach of Instructions 3.9 and 3.10. Such trees shall remain the property of the Department.
- 3.12 All trees however marked or indicated for felling must be felled and utilised to the satisfaction of a Forest Officer with the minimum of waste.
- 3.13 Trees shall be fallen so that the stump height takes into account the balanced need for maximum utilisation and maximum safety requirements.
- 3.14 All felling, trimming and crosscutting is to be carried out with a minimum of damage to retained standing trees.

Where standing trees are damaged by him an Operator shall be liable for such damage at rates determined by the Executive Director. Any penalties will be charged under Instruction 2.8 of this Code. Such damaged trees shall remain the property of the Department.

- 3.15 All logs shall be trimmed to remove all limbs including epicormic twigs and branches with foliage attached.
- 3.16 All felling, trimming and crosscutting shall be carried out to ensure maximum log utilisation to current log specifications as laid down by the Executive Director. Where in the opinion of a Forest Officer in Charge log preparation results in excessive waste an Operator shall

be liable for payment for such waste at rates determined by the Executive Director.

- 3.17 An Operator shall be liable to pay the Department for all wood not cut in accordance with Instruction 3.12, 3.13 or 3.16 at rates determined by the Executive Director.
- 3.18 Trees which have been scarfed or part-scarfed shall not be left standing. If this is not possible, for example because of a mechanical breakdown, the Bush Foreman on the site and/or a Forest Officer must be informed immediately. Arrangements must then be made to fell the tree at the earliest possible opportunity.
- 3.19 "Hangups" shall be dislodged and cut-off tops shall not be left leaning against standing trees.
- 3.20 The tops and branches of any trees felled by the operator which fall close to retained crop trees shall be cleared away from the crop trees into open spaces to the satisfaction of the Forest Officer in Charge.
- 3.21 All tops, slash and other debris from the operators operations shall be cleared from roads, firebreaks, creeks, landings and logging tracks as directed by a Forest Officer.

SECTION 4:**EXTRACTION**

- 4.1 All extraction shall be carried out in such places, order, time and manner as the Forest Officer in Charge shall from time to time approve.
- 4.2 The Forest Officer in Charge may determine the priority of extraction of produce from time to time. An Operator shall comply with the Forest Officer's expressed priority of extraction. This priority may be expressed in type of log, point of removal, dieback hygiene requirements and deadline for delivery or all four together.
- 4.3 If an Operator requires to construct tracks within the hardwood forest areas to facilitate extraction, the location of such tracks shall be approved by a Forest Officer in Charge before construction and all tracks shall be constructed to the satisfaction of the Forest Officer and at the Operator's expense.
- 4.4 All extraction is to be carried out with a minimum of damage to retained standing trees. Where standing trees are damaged by him an Operator shall be liable for such damage at rates determined by the Executive Director. Any penalties will be charged under Instruction 2.8 of this Code. Such damaged trees shall remain the property of the Department.
- 4.5 Extraction may be restricted or prohibited in the interests of dieback hygiene, according to the Instructions under Section 7 - Jarrah Dieback.

- 4.6 A Forest Officer may at his discretion prohibit all extraction or particular methods of extraction or particular items of equipment used for same at such times and places as in his opinion are causing, or are likely to cause, excessive soil damage or excessive crop tree damage.
- 4.7 An Operator shall not carry on extraction at such times or places, or by methods or equipment which a Forest Officer has prohibited until such prohibition has been revoked by the Forest Officer.
- 4.8 At the completion of snigging or during temporary cessation of snigging, erosion control work must be completed. All extraction tracks and temporary roads subject to erosion will have cross drains installed as prescribed by the Forest Officer.

SECTION 5:

ROADING

- 5.1 Unless otherwise indicated by the Executive Director, an Operator is responsible for the cost of any road construction or road maintenance work that may be necessary in order to carry out a logging operation.
- 5.2 Where one or more logging roads are used by more than one Operator simultaneously, then the cost of construction and maintenance of such roads shall be shared by the Operators. In the event of any dispute with respect to cost sharing, the decision of the Executive Director shall be final.
- 5.3 The location and construction and maintenance standard of all logging roads shall be as determined and directed by the Forest Officer in Charge.
- 5.4 Hauling may be stopped by a Forest Officer if the surface of a road being used begins to break up.
- 5.5 Whilst carrying out road construction and maintenance an Operator shall observe any instruction and comply with any procedures laid down to restrict the spread of jarrah dieback (See Section 7).
- 5.6 Unless otherwise indicated by Act of Parliament or by the Executive Director, all roads constructed on State forest or other Crown land controlled by the Department, shall be deemed to be Departmental roads, irrespective of the organisation responsible for the cost of construction and maintenance of such roads.

SECTION 6:**LOADING AND HAULING**

- 6.1 All loading and hauling shall be carried out in such place, order, time and manner as the Forest Officer in Charge shall from time to time approve.
- 6.2 The Forest Officer in Charge may determine the priority of loading and removal of produce from time to time. An Operator shall comply with the Forest Officer in Charge's expressed priority of loading. This priority may be expressed in type of log, point of removal, dieback hygiene requirements and deadline of delivery or all four together.
- 6.3 Access to the loading points within State forest or other Crown lands or controlled by the Department may be restricted by a Forest Officer at any time by:
- (a) Nomination of the route to be followed by loaded trucks when delivering timber and by empty trucks when entering and travelling through areas controlled by the Department.
 - (b) Nomination of hours of any day during which work may be carried on.
 - (c) Nomination of the days of the week during which work may be carried on.
 - (d) Suspension of deliveries because of road conditions, and/or weather conditions.

- 6.4 An Operator shall at his own expense maintain to the satisfaction of the Forest Officer in Charge Departmental roads used by him for hauling. If the Operator is unable to complete this work within the time limits set by the FOIC, another party may be employed at the Operator's expense to ensure the work is completed in time.
- 6.5 A contractor shall observe any instruction and comply with any procedures laid down to restrict the spread of jarrah dieback (See Section 7).
- 6.6 Loading and hauling of logs and timber shall be carried out with a minimum of damage to standing trees. Where standing trees are damaged by him an Operator shall be liable for such damage at rates determined by the Executive Director. Any penalties will be charged under Instruction 2.8 of this Code. Such damaged trees shall remain the property of the Department.
- 6.7 An Operator shall not carry on loading and hauling at such times or places, or by methods or equipment which a Forest Officer has prohibited until such prohibition has been revoked by the Forest Officer.
- 6.8 To minimise damage to forest roads and to promote safety in operation log trucks will not be loaded in excess of their licenced capacity.
- 6.9 Truck drivers are responsible for the safe loading of their trucks in regard to overloading, overwidth and height, overlength and load security and are responsible for the loss of a load or part thereof.
- 6.10 No truck is to leave the loading area until the load has been checked by the driver.
- 6.11 Where logs are being carted each bay of logs will be secured by two binder chains. The quality of the chains hook coupling links and toggles is to be equal to or better than 5mm "Hercalloy" high tensile chain.

- 6.12 Protruding limbs, loose bark and trailing debris of any kind on trucks are not permitted and must be removed by the driver before leaving the loading point or immediately when noticed "en route".
- 6.13 The driver should stop and check the safety of the load at least once while travelling to his destination. The driver must stop and check the safety of the load if a major public road is part of the haul route.
- 6.14 The loss of any log or logs from a load during hauling must be reported immediately to a Forest Officer. Logs must be recovered promptly by the Operator and any cost incurred in the recovery is the responsibility of the Operator. If logs lost from a load are not recovered by the Operator within a time acceptable to the Forest Officer in Charge the FOIC will organise recovery of the logs and charge all costs to the Operator. If necessary the costs will be recovered under Clause 2.8.
- 6.15 If quick release stanchions are fitted to a truck these shall not be released for unloading until the unloading supervisor gives his permission.
- 6.16 Speed limits as laid down by the Road Traffic Authority will apply on both public and Departmental roads. The Department reserves the right to introduce lower speed limits on any or all Departmental roads in the interests of greater safety of operation or to lessen the damage to the road. All speed limits must be adhered to.
- 6.17 Where drivers come under notice of the Department for speeding on Departmental roads or are persistent offenders in this regard the provisions of Instruction 2.1 of this Code may be invoked.

- 6.18 A Forest Officer and/or Inspector under the Timber Industry Regulation Act may require an Operator to provide and install suitable signs on Departmental roads to warn road users of the presence of log hauling trucks. (See also Instruction 6.25).
- 6.19 The Department reserves the right to decide whether any vehicle is in a fit condition for the job it is doing bearing in mind road conditions, road grades and load carried. Operators will, on request by a Forest Officer make their vehicles available to the Department for inspection.
- 6.20 If, after inspection, the Forest Officer decides that in his opinion a vehicle's mechanical condition renders it unfit for the job, the Operator will be required to repair the vehicle to the satisfaction of the Forest Officer, before it can be used further in the Operation.
- 6.21 Engine exhaust pipe systems must be installed so that they do not blow down onto the roadway. (Exhausting above the cabin is the best position).
- 6.22 On dusty roads drivers are to keep a suitable distance apart to allow other traffic and road repair crews better visibility.
- 6.23 Standard double-sided reflective warning triangles shall be carried by all haulage vehicles and shall be displayed, if a vehicle breaks down, as follows:
- (a) one triangle 100-150 metres in front of the vehicle and 1.5 metres out from the road edge on the same side as the vehicle;
 - (b) as for (a) but to the rear of the vehicle;

(c) one triangle alongside the mid point of the vehicle on the side nearest the centre of the road.

6.24 When haulage takes place on private roads such as the West Australian Chip and Pulp Co (WACAP) private roads, any Road User Regulations or road maintenance charges in force for such roads must be strictly adhered to.

6.25 Any traffic control signs required to be displayed by the Operator shall conform with the standard for traffic control signs laid down by the Main Roads Department.

SECTION 7:

ENVIRONMENTAL PROTECTION

Jarrah Dieback

- 7.1 In jarrah forest, particularly those areas not affected by dieback, logging practices may be modified to take into account the need to protect the forest from this disease. This practice is called "hygiene logging".
- 7.2 Hygiene logging involves either:
- (i) the use of a physical barrier at landings to separate the skidding and loading components of logging, the positioning of the barrier at each landing to be determined by a Forest Officer; or
 - (ii) the complete separation in time of the skidding and loading phases of logging.
- 7.3 In areas of jarrah forest not affected by dieback, extraction during moist soil conditions (generally the months of May to October inclusive) may be restricted, or be required to cease altogether. Such areas apply in particular to the jarrah forests north of the Preston River.
- 7.4 In certain areas of the jarrah forest, extraction during moist soil conditions is permitted provided no soil is moved during the extraction process. The decision as to whether or not soil movement is taking place is the responsibility of the Forest Officer in Charge. The Operator, and in particular his Bush Foremen, must make themselves totally familiar with the restrictions regarding soil movement.

- 7.5 In areas of jarrah forest infected with dieback, and in karri forest, extraction during moist soil conditions, including soil movement, is permitted. The constraints with respect to the environmental protection of soil (Instructions 7.23 to 7.28 inclusive) will however apply.
- 7.6 Machinery for hauling and extraction, when working in:
 - (a) uninfected jarrah forest, must be cleaned down when entering a coupe or sub-coupe,
 - (b) infected forest, must be cleaned down before moving into uninfected jarrah forest.
- 7.7 An Operator will comply with instructions from a Forest Officer concerning inspections and cleaning down of machinery or equipment. During dry soil conditions cleaning down equipment is an air compressor with hoses of adequate length and appropriate nozzles or an acceptable alternative to remove soil from machinery. During moist soil conditions a portable pumper unit and a portable washdown ramp constructed to the specifications of a Forest Officer may be required. Water used for cleaning down must be treated with chemical as specified by the Forest Officer in Charge.
- 7.8 To restrict the spread of dieback an Operator shall observe any instruction applying to the movement of light vehicles, logging equipment, road haulage equipment, road construction equipment and the winning and carting of road materials, such as gravel and shale.
- 7.9 The Executive Director may require that all or some of the employees of an Operator working in the hardwood forest areas be trained to a level of competence in dieback hygiene acceptable to a Forest Officer.

Fire

- 7.10 Particular attention must be paid to the sections of the Conservation and Land Management Act and the Bush Fires Act and to Regulations made under those Acts for the purpose of controlling fires.
- 7.11 No fires are to be lit in a hardwood forest area without the express permission of a Forest Officer.
- 7.12 A Forest Officer may exempt an Operator and his employees from the requirements of Instruction 7.11 when in the opinion of the Forest Officer weather conditions allow. This could normally be expected in winter.
- 7.13 An Operator or any person employed by him shall take all necessary precaution to prevent the occurrence or spread of fire in the hardwood forest area and shall be liable to the Executive Director for suppression costs and damage caused within the said areas or on any State forest, timber reserve or Crown land by any fire on, or extending from, the said area unless the Operator can prove to the satisfaction of the Executive Director that such fire or fires without any act or omission on the part of the Operator originated outside the said area and/or arose through some cause beyond his control.
- 7.14 An Operator and all his employees shall co-operate with officers of the Department in preventing and suppressing bush fires and shall when called upon by a Forest Officer act under his instructions in fire fighting or preventing outbreaks of fire.
- 7.15 An Operator shall not use, or operate, or permit the use or operation of, any chainsaw or other internal combustion engine in any forest area unless the engine is fitted with an exhaust system of a type and design approved by the Executive Director. The exhaust system will be inspected

regularly by the Operator to ensure that the efficiency is maintained. Spark arrestors of a YUBA or equivalent type will be fitted to all petrol and diesel engines other than turbo charged diesels.

- 7.16 Every machine involved in extraction or loading must carry a suitable fire extinguisher (Bush Fires Reg 37).
- 7.17 An Operator shall keep all logging machines free of accumulated combustible material, particularly the spaces between the engine and engine guards.
- 7.18 An Operator may establish in any hardwood forest area not more than one dump of fuel per logging unit on a site and of a size approved by a Forest Officer. The ground around such dump shall at all times be clear of all vegetation or inflammable debris for a distance of not less than 3 metres.
- 7.19 Smoking shall not be permitted within 6 metres of the closest point of a fuel dump.
- 7.20 If a Large Fire Organisation is declared in a particular Departmental administrative Region, any or all logging Operations in that Region may, at the direction of the Forest Officer in Charge, be suspended for the whole or part of the duration of that Large Fire Organisation.
- 7.21 The Executive Director may require that all or some of the employees of an Operator working in the hardwood forest areas be trained to a level of competence in fire suppression acceptable to a Forest Officer.
- 7.22 The Executive Director will accept no liability for the loss or damage by fire, however started, of any equipment or property owned or operated by an Operator or any of his employees.

Soil

- 7.23 A Forest Officer may at his discretion prohibit all snigging loading and hauling or particular methods of snigging loading and hauling or particular items of equipment used for same and at such times and places as in his opinion are causing or are likely to cause excessive soil damage.
- 7.24 At the completion of snigging or during temporary cessation of snigging, erosion control work must be completed. Extraction tracks and temporary roads subject to erosion will have cross drains installed, as prescribed by the Forest Officer.
- 7.25 The maximum level of damaged soil in any fallers block or coupe shall not exceed certain specified limits at the completion of extraction. Damaged soil is defined as soil which has been subject to any of the following:
- (a) The A soil horizon (topsoil) removed.
 - (b) The A soil horizon (topsoil) mixed with the B soil horizon (sub-soil usually containing clay).
 - (c) Severe compaction. (Normally meaning compaction which will affect germination or plant growth).

Surveys will be conducted to determine the percentage area of each fallers block or coupe where soil has been damaged by extraction.

If the level of damage exceeds the specified limit then the fallers block or coupe will be closed and the Operator will be moved to the most suitable winter logging area available. If damage exceeds the specified limit in the most suitable area the whole operation will be closed.

After a coupe is closed no consideration will be given to re-opening it until the local Soil Dryness Index exceeds a specified limit. This decision will be made by the Forest Officer in Charge.

7.26 An Operator shall at his expense repair all soil damaged by logging. Rehabilitation work shall be carried out during the summer following logging to the satisfaction of the Forest Officer in Charge.

7.27 An Operator shall at his expense carry out any measures specified by a Forest Officer to prepare denuded areas for revegetation. These areas shall include landings, gravel pits and temporary roads used during the logging operation.

7.28 **Noxious Weeds**

An Operator will take any precautions nominated by a Forest Officer to prevent the introduction or spread of noxious weeds during his logging operation. Where necessary, a Forest Officer may require cleaning down of equipment or other practices to prevent the introduction or spread of noxious weeds.

7.29 **Feral Animals**

An Operator shall not interfere with any activities taking place to control feral animals.

7.30 **Rare Flora and Fauna**

An Operator upon being notified by a Forest Officer of the occurrence of a particular species of rare flora in his logging area, shall take the necessary steps to ensure that damage to or taking of the species does not occur.

7.31 An Operator shall take all necessary steps to minimise damage to all species of protected native fauna.

7.32 **Water**

An Operator shall take any special measures prescribed by the Forest Officer in Charge for the protection of water purity in water courses in or adjacent to hardwood forest areas in which he is working.

7.33 An Operator shall ensure that no logging machinery or vehicles enter stream reserves, unless authorised by a Forest Officer.

7.34 All culverts and road drains shall be kept clean of soil, slash or other debris likely to obstruct the flow of water. Damage caused to roads by a failure to carry out this instruction will be regarded as damage covered by clause 2.8.

SECTION 8:

VOLUME DETERMINATION RECORDING AND PAYMENT

- 8.1 The determination of log volume will be by the Departmental method of measurement for the time being applying for each log grade and these currently are:
- 8.1.1 **For Chipwood Logs:** true volume under bark calculated by application of the weight-volume conversion factor in force from time to time.
 - 8.1.2 **For General Purpose Sawlogs:** true volume under bark measured on individual logs, or by a weight - volume conversion factor in force from time to time.
 - 8.1.3 **For Salvage Sawlogs:** true volume under bark measured on individual logs, or by a weight - volume conversion factor in force from time to time.
 - 8.1.4 **For Small Sawlogs:** true volume under bark measured on individual logs, or by a weight - volume conversion factor in force from time to time.
 - 8.1.5 **For SEC Poles:** according to the number of poles in each length category.
 - 8.1.6 **For Piles, Bridge Timbers and Poles (other than SEC poles):** according to the number of pieces in each length and crown diameter class.

- 8.1.7 **For Specialty and Other Timber:** according to agreement between the Department and the Contractor.
- 8.2 No road haulage of logs of any grade will take place unless the driver is in possession of a completed CLM823 Delivery Note or other approved documentation to cover the load he is then carrying. The Operator will be responsible for ensuring that the CLM823 Delivery Note or other approved documentation is certified as received by the authorised representative of the receiver before passing to him the purchaser's copy of the approved docket.
- 8.3 All completed CLM823 Delivery Notes or other documentation approved by the Forest Officer in Charge will be passed to the FOIC for certification as soon as possible following delivery. Payment/invoicing to all parties will proceed only on the basis of CLM823 Delivery Notes or other approved documentation, correctly completed and certified as such by the Forest Officer in Charge.
- 8.4 On receipt from the Forest Officer in Charge of a certificate covering completed CLM823 Delivery Notes or other approved documentation the Accountant or other person authorised by the Executive Director shall pay the Operator for any work done in accordance with the terms of the Operation. This payment will normally be made twice per month. Payment at any other time will be made only for good cause as shown by the Operator and deemed by the Forest Officer in Charge in his absolute discretion to be sufficient to warrant such payment being made to the Operator.
- 8.5 On receipt from the FOIC of a certificate covering completed CLM823 Delivery Notes or other approved documentation the Accountant or other person authorised by the Executive Director shall invoice the Operator for any log products received in accordance with the applicable Sawmilling Licence or Contract of Sale. Payment to the Executive Director for log products received will be in accordance with the conditions of the applicable Sawmilling Licence or Contract of Sale.

- 8.6 Payments or invoices made under Instruction 8.4 and 8.5 will be subject to deduction/addition of any amounts certified by the Forest Officer in Charge as payable by the Operator under Instructions 2.8 2.15, 2.16, 3.11, 3.14, 3.16, 3.17, 4.4, 6.4, 6.6, 6.14 and 7.34 of this Code.
- 8.7 The Forest Officer in Charge will use his best endeavours to ensure that all payments to the Operator under Instruction 8.4 are made promptly.

SECTION 9:

SAFETY

- 9.1 An Operator shall comply with the safety requirements laid down by the Forest Officer in Charge from time to time, and adhere strictly to the demands and instructions of a District Timber Inspector, appointed under the Timber Industry Regulation Act (1926).
- 9.2 Safety helmets shall be worn in the hardwood forest areas at all times by all persons engaged in logging (TIR Reg 56).
- 9.3 Safety boots shall be worn in the hardwood forest areas at all times by all persons engaged in logging.
- 9.4 An Operator must provide a First Aid Kit of a type, size and specification acceptable to a TIR Inspector (TIR Reg 37). The container for this kit must adequately protect the contents and it must be located for easy access by all employees.
- 9.5 The Forest Officer in Charge reserves the right to prohibit the use of vehicles or equipment which in his opinion are not suited to the task or are considered unsafe.
- 9.6 A Forest Officer and/or an Inspector under the Timber Industry Regulation Act, may require an Operator to provide and install suitable signs on Departmental and/or public roads to warn road users of the presence of falling extraction and haulage operations.
- 9.7 An Operator shall at the request of the Forest Officer in Charge make himself or his nominated senior field representative available to participate in the investigation of accidents involving himself, his employees, his vehicles or his equipment.