



**CODE OF**

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**LOGGING**

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**PRACTICE**

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1 NOVEMBER 1988

Department of Conservation  
and Land Management

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**CODE OF LOGGING PRACTICE**

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## INTRODUCTION

The logging rules contained in this "Code of Logging Practice" apply to all logging operations carried out on State forest and other Crown lands controlled by the Department of Conservation and Land Management. Private property logging operations conducted by CALM are also covered by this Code.

Where specifications for the performance of the requirements in this Code are required they are to be found in the Manual of Hardwood Logging Specifications for Hardwood Logging Operations or the Pine Management Guide for Softwood Logging operations.

This Code 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 Contract or Licence.



Syd Shea  
EXECUTIVE DIRECTOR

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**SECTION 1:****DEFINITIONS**

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

- "Bush Foreman"** means the Logging Contractor's on-site representative with day to day responsibility for the performance of the Contractor'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,
- "Cleardown"** 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,
- "Contract"** means an arrangement in writing or evidenced in writing between the Department of Conservation and Land Management and another party under which some logging operation is to be carried out by that other party.
- "Contractor"** means any person or Company including any servants, agents, employee or subcontractors of that person or Company, engaged in a logging operation under contract to CALM.
- "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 or tree felling machine,
- "Forest Officer"** means a forest officer as defined in the CALM Act,
- "Forest Officer in Charge" and "FOIC"** means any forest officer appointed in writing by the Executive Director to be in charge of any logging site or any part thereof,
- "Forest Produce"** means any log or log product that may be removed by a Contractor from an Operation and includes sawlogs, poles, piles, chip logs, firewood, chips and any other product authorised by a Contract or Departmental Licence.
- "Forest Representative"** means any Forest Officer, nominated orally or in writing by the Executive Director or the Forest Officer in Charge, to assume some or all of the powers, duties, discretions and authorities of the Forest Officer In Charge.

- "Forest Areas"** means any area of land under the ownership, management or control of the Executive Director on which trees are growing 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 area to a nominated delivery point,
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- "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 forest area dominated by the species Eucalyptus marginata,
- "Karri Forest"** means any forest area dominated by the species Eucalyptus diversicolor,
- "Large Fire Organisation"** means the planned deployment of Departmental resources in the event of a major wildfire
- "Licence"** means a written authority for a person or Company, including any servants, agents, employees or subcontractors of that person or company to harvest forest produce. Licences are generally issued to individual persons for the harvesting, of small one-off quantities of forest produce.
- "Operation"** means any logging activity, on State forest or other Crown land under the control of the Department, authorised by a written Contract between the Department and another party or by a Departmental Licence.

- "Pine Plantation"** means any forest area dominated by species of the genus Pinus
- "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 a Contractor, under the terms of a Contract or Licence, 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 rules in this Code shall be observed by all persons participating in any 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 the Forest Officer in Charge raising objection to the continued employment of that person in the forest. In addition it may be regarded as a breach of the Contract or Licence.

2.2 A Contractor shall comply in all respects with the provisions of this Code of Logging Practice and all Acts of the State of Western Australia, and in particular, the Bush Fires Act 1954, the Conservation and Land Management Act 1984, 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 1976-86, the Country Areas Water Supply Act 1947-88, the Water Authority Act 1984-87, and the Occupational Health Safety and Welfare Act 1984-87 including all amendments to those Acts for the time being in force and any Act passed in substitution for or in lieu thereof and all Regulations for the time being in force thereunder.

The "Forest Regulations" made under the Forests Act 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.

2.3 Any person engaged in cutting and/or removal of forest produce shall be in possession of a current Timber Workers Registration Certificate. This certificate may be replaced by a Certificate issued by the Western Australian Timber Industry Training Committee. One-off Minor Forest Produce Licence holders may be exempted from this requirement.

- 2.4 Within 48 hours of the commencement of an Operation the Contractor shall advise the F.O.I.C. by notice in writing, the name and address of any employee who is engaged by the Contractor in cutting and/or removal of forest produce or who for any reason ceases to be engaged by the Contractor in cutting and/or removal of forest produce.
- 2.5 The F.O.I.C. reserves the right to limit or otherwise control the hours of work and days of work of all personnel working in the forest. A Contractor will take due note of any instruction from the F.O.I.C. in this regard and such instruction will be deemed to apply until revoked and will apply equally to the Contractor and any of his employees.
- 2.6 A Contractor shall exercise strict supervision and control over operations of all workers employed by him, with a view to:
- (a) Preventing any breach of the Conservation and Land Management Act and Regulations, the TIR Act and Regulations and this Code of Practice.
  - (b) Preventing damage to other standing timber during felling, extraction and hauling operations in accordance with current silvicultural prescriptions.
- 2.7 All operations carried out by, or on behalf of, a Contractor in forest areas shall be carried out as directed by the F.O.I.C. 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 Contractor, or failing that from the Contractor's deposit.

- 2.8 A Contractor and all persons authorised by him, in carrying out all aspects of an Operation, shall follow and use only such paths, tracks, and roads in the forest areas as may be indicated to him by the F.O.I.C.
- 2.9 A Contractor shall not cut through, break down or otherwise interfere with any fencing or other improvements erected upon or adjacent to the forest areas.
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- 2.10 A Contractor shall keep closed all gates used and shall take all necessary action to prevent the ingress or egress of stock into or from any forest areas enclosed by fences which may have been damaged as a result of his logging operations.
- 2.11 A Contractor must ensure that all major roads as nominated by the F.O.I.C. 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 F.O.I.C. upon completion of logging.
- 2.12 A Contractor 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.

- 2.13 When directed by the F.O.I.C. a Contractor 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 Contractor from liability to lessees or holders in respect of any actionable damage caused by the Contractor upon such pastoral or other leases.
- 2.14 A Contractor 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 Contractor's expense.
- 2.15 A Contractor shall dispose of all litter, food scraps, refuse, unserviceable equipment or machinery, or other debris resulting from his operations in the forest areas at such place and in such manner and time as the F.O.I.C. shall direct. The discharge of used engine oil onto the ground in any forest area is not permitted. If a subsequent cleanup is required the work will be done at the Contractor's expense.
- 2.16 A Contractor shall observe any instruction by the F.O.I.C. and comply with any procedures laid down to restrict the spread of jarrah dieback. In particular a Contractor 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 F.O.I.C. shall from time to time approve.
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- 3.2 Felling, trimming and crosscutting can be done either by hand or with machine. 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 F.O.I.C.
- 3.3 All hand fallers employed by the Contractor 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. This certificate may be replaced by a certificate issued by the Western Australian Timber Industry Training Committee.
- 3.4 A Contractor is required to confine his felling activity to certain defined coupes, subcoupes and/or faller's blocks within the cutting areas. These defined areas must be felled to the satisfaction of the F.O.I.C. before further areas will be made available for felling.

### 3.5 **Marking of Trees for Removal**

- (a) Where trees are marked for removal a Contractor 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 F.O.I.C. they contain log produce designated as such under the conditions of the Operation.
- (b) A Contractor shall not fell, damage or utilise any unmarked trees.
- (c) If a Contractor wishes to cut unmarked trees to assist his operation, eg, widening vehicle tracks, extending landings, he shall refer the matter to the F.O.I.C. and such trees will not be cut until marked by a Forest Officer.

### 3.6 **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 F.O.I.C. they contain log produce designated as such under the conditions of the Operation.
- (b) A Contractor shall not fell, damage or utilise any tree marked for retention by a Forest Officer.
- (c) If a Contractor wishes to cut marked (retained) trees to assist his operation, eg, widening vehicle tracks, extending landings, he shall refer the matter to the F.O.I.C. and such trees will not be cut until released by a Forest Officer.

3.7 A Contractor shall incur penalties at rates determined by the Executive Director for any wood contained in any trees felled by him in breach of Clauses 3.5 and 3.6. Any penalties will be charged under Clause 2.7 of this Code. Such trees shall remain the property of the Department.

3.8 All trees, however marked or indicated for felling must be felled and utilised to the satisfaction of the F.O.I.C.

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3.9 Trees shall be fallen so that the stump height takes into account the balanced need for maximum utilisation and maximum safety requirements.

3.10 All felling, trimming and crosscutting is to be carried out without damage to retained standing trees.

Where standing trees are damaged by him a Contractor shall be liable for such damage at rates determined by the Executive Director. Any penalties will be charged under Clause 2.7 of this Code. Such damaged trees shall remain the property of the Department.

3.11 All logs shall be trimmed to remove all limbs flush with the log including epicormic twigs and branches with foliage attached.

3.12 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 F.O.I.C. log preparation results in excessive waste a Contractor shall be liable for payment for such waste at rates determined by the Executive Director.

3.13 A Contractor shall be liable to pay the Department for all wood not cut in accordance with Clauses 3.8, 3.9 or 3.12 at rates determined by the Executive Director.

- 3.14 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.
- 3.15 "Hangups" shall be dislodged and cut-off tops shall not be left leaning against standing trees.
- 3.16 The tops and branches of any trees felled by the Contractor which fall close to retained crop trees shall be cleared away from the crop trees into open spaces to the satisfaction of the F.O.I.C.
- 3.17 All tops, slash and other debris generated by the Operation shall be cleared from roads, firebreaks, creeks, landings and logging tracks as directed by the F.O.I.C.



**SECTION 4:****EXTRACTION**

- 4.1 All extraction shall be carried out in such places, order, time and manner as the F.O.I.C. shall from time to time approve.
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- 4.2 The F.O.I.C. may determine the priority of extraction of produce from time to time. A Contractor shall comply with the F.O.I.C. expressed priority of extraction. This priority may be expressed as type of log, point of removal, dieback hygiene requirements, and/or deadline for delivery.
- 4.3 A Contractor is required to confine his extraction activity to certain defined coupes, subcoupes and/or faller's blocks within the cutting areas. These defined areas must be extracted to the satisfaction of the F.O.I.C. before further areas will be made available for extraction. Extraction in these cases may include associated erosion control work.
- 4.4 If a Contractor wishes to construct temporary extraction tracks within the forest areas, the location of such tracks shall be approved by the F.O.I.C. before construction and all tracks shall be constructed to the satisfaction of the F.O.I.C. and at the Contractor's expense.
- 4.5 All extraction is to be carried out without damage to retained standing trees. Where standing trees are damaged by him a Contractor shall be liable for such damage at rates determined by the Executive Director. Any penalties will be charged under Clause 2.7 of this Code. Such damaged trees shall remain the property of the Department.

- 4.6 In the interests of dieback hygiene, extraction may be restricted or prohibited under Section 7 - Jarrah Dieback.
- 4.7 The F.O.I.C. may at his discretion prohibit all extraction or particular methods of extraction or particular items of equipment used for extraction at such times and places as in his opinion are causing, or are likely to cause, excessive soil damage or excessive crop tree damage.
- 4.8 A Contractor shall not carry on extraction at such times or places, or by methods or equipment which the F.O.I.C. has prohibited until such prohibition has been revoked by the F.O.I.C.
- 4.8 At the completion of extraction or during temporary cessation of extraction, erosion control work must be completed. All extraction tracks and temporary roads subject to erosion will have cross drains installed as prescribed by the F.O.I.C.

**SECTION 5:****ROADING**

- 5.1 Unless otherwise decided the location, construction maintenance standard of all logging roads shall be ~~determined and directed by the F.O.I.C.~~
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- 5.2 Unless otherwise indicated by Act of Parliament or by Executive Director, all roads constructed on State for or other Crown land controlled by the Department, shall deemed to be Departmental roads, irrespective of organisation responsible for the cost of construction maintenance of such roads.
- 5.3 Any Contractor involved in road construction and maintenance shall observe any instruction and comply with any procedures laid down to restrict the spread of jar dieback (See Section 7).

**SECTION 6:****LOADING AND HAULING**

- 6.1 All loading and hauling shall be carried out in such place, order, time and manner as the F.O.I.C. shall from time to time approve.
- 6.2 The F.O.I.C. may determine the priority of loading and removal of produce from time to time. A Contractor shall comply with the F.O.I.C.'s expressed priority of loading. This priority may be expressed in type of log, point of removal, dieback hygiene requirements and/or deadline for delivery.
- 6.3 A contractor is required to confine his loading and hauling activity to certain defined coupes, subcoupes and/or faller's blocks within the cutting area. Produce from these defined areas must be loaded and hauled to the satisfaction of the F.O.I.C. before further areas will be made available for loading and hauling. Loading and hauling in these cases may include associated log landing rehabilitation work.
- 6.4 Access to the loading points within the forest areas may be restricted by the F.O.I.C. at any time by:
- (a) Nomination of the route to be followed by loaded and 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 out.
  - (c) Nomination of the days of the week during which work may be carried out.
- and (d) Suspension of hauling because of road conditions, and/or weather conditions.

- 6.5 A Contractor shall at his own expense when stipulated under the terms of his Contract or Licence maintain to the satisfaction of the F.O.I.C. Departmental roads used by him for hauling. If the Contractor is unable to complete this work within the time limits set by the F.O.I.C. another party may be employed at the Contractor's expense to ensure the work is completed in time.
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- 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 a Contractor shall be liable for such damage at rates determined by the Executive Director. Any penalties will be charged under Clause 2.7 of this Code. Such damaged trees shall remain the property of the Department.
- 6.7 A Contractor shall observe any instruction and comply with any procedures laid down to restrict the spread of jarrah dieback (See Section 7).
- 6.8 The F.O.I.C. may at his discretion prohibit loading and hauling or particular methods of loading and hauling at such times and places as in his opinion are causing, or are likely to cause, excessive soil damage excessive crop tree damage and or excessive road damage.
- 6.9 A Contractor shall not carry on loading and hauling at such times or places, or by methods or equipment which the F.O.I.C. has prohibited until such prohibition has been revoked by the F.O.I.C.
- 6.10 To minimise damage to forest roads and to promote safety in operation log trucks must not be loaded in excess of their licenced capacity.
- 6.11 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.

- 6.12 Protruding limbs, loose bark or trailing debris of any kind on trucks is 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 Contractor and any cost incurred in the recovery is the responsibility of the Contractor. If logs lost from a load are not recovered by the Contractor within a time acceptable to the F.O.I.C. the F.O.I.C. will organise recovery of the logs and charge all costs to the Contractor. If necessary the costs will be recovered under Clause 2.7.
- 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 Clause 2.1 of this Code may be invoked.

- 6.18 The F.O.I.C., and/or Inspector under the Timber Industry Regulation Act may require a Contractor to provide and install suitable signs on Departmental roads to warn road users of the presence of log hauling trucks. (See also Clause 6.19).
- 6.19 Any traffic control signs required to be displayed by the Contractor shall conform with the standard for traffic control signs laid down by the Main Roads Department.
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- 6.20 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. Contractors will, on request by the F.O.I.C. make their vehicles available to the Department for inspection.
- 6.21 If, after inspection, the F.O.I.C. decides that in his opinion a vehicle's mechanical condition renders it unfit for the job, the Contractor will be required to repair the vehicle to the satisfaction of the F.O.I.C. before it can be used further on the job.
- 6.22 Engine exhaust pipe systems must be installed so that they do not blow down onto the roadway.
- 6.23 On dusty roads drivers are to keep a suitable distance apart to allow other traffic and road repair crews better visibility.
- 6.24 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.

6.25 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.



**SECTION 7:****ENVIRONMENTAL PROTECTION****Jarrah Dieback**

7.1 In jarrah forest, particularly those areas not infected with 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".

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7.2 Hygiene logging involves either:

(a) the complete separation in time of the skidding and loading phases of logging.

(b) the use of stationary (heel-boom) loaders; or

(c) the use of a physical barrier at either the front or rear of landings to separate the extraction and loading components of logging, the positioning of the barrier at each landing to be determined by a Forest Officer

7.3 In areas of jarrah forest not infected with 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 F.O.I.C. The Contractor, 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 (Clauses 7.35 to 7.39 inclusive) will however apply.
- 7.6 All vehicles and machinery used in logging operations must be cleaned down:
- (a) when entering a coupe, sub-coupe or faller's block in uninfected jarrah forest;
- and (b) before moving from infected forest into uninfected jarrah forest.
- 7.7 A Contractor 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 approved by the F.O.I.C. may be required. Water used for cleaning down must be treated with chemical as specified by a Forest Officer.
- 7.8 To restrict the spread of dieback a Contractor 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 a Contractor working in the forest areas be trained to a level of competence in dieback hygiene acceptable to a Forest Officer.

**Fire - all forest areas**

- 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 any forest area without the express permission of a Forest Officer.
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- 7.12 A Forest Officer may exempt a Contractor and his employees from the requirements of Clause 7.11 when in the opinion of the Forest Officer weather conditions allow. This could normally be expected in winter.
- 7.13 A Contractor or any person employed by him shall take all necessary precaution to prevent the occurrence or spread of fire in any 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 Contractor can prove to the satisfaction of the Executive Director that such fire or fires without any act or omission on the part of the Contractor originated outside the said area and/or arose through some cause beyond his control.
- 7.14 A Contractor 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 A Contractor shall not use or permit the use 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 must be inspected regularly by the Contractor to ensure that its efficiency is maintained.

Spark arrestors of a YUBA or equivalent type must be fitted to all petrol and diesel engines other than turbo charged diesels.

- 7.16 Every logging machine involved in felling extraction or loading must carry a suitable fire extinguisher (Bush Fires Reg 37).
- 7.17 The Contractor shall keep all logging machines free of accumulated combustible material, particularly the spaces between the engine and engine guards.
- 7.18 The Contractor may establish in any forest area not more than one dump of fuel per logging unit on a site and of a size approved by the F.O.I.C. The ground around such dump shall at all times be clear of all vegetation or inflammable debris for a distance of not less than 6 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 Departmental administrative Region, any or all logging Operations in that Region may, at the direction of the F.O.I.C., 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 a Contractor working in a hardwood forest area 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 a Contractor or any of his employees.

**Fire - pine plantations**

- 7.23 Smoking is prohibited in all pine plantations except where the ground has been cleared of all vegetation or inflammable material. Butts and spent matches must be deposited on bare mineral soil and buried. A Forest Officer may exempt a Contractor from this requirement when, in the opinion of the Forest Officer, weather conditions allow. This could normally be expected in winter.
- 7.24 All chainsaw operators working in pine plantations must have in their immediate work area a pack spray of a type, size and colour approved by a Forest Officer. "Immediate work area" is defined as the area within 150m distance of faller activity. The pack spray must always be full of water and be in good working order.
- 7.25 The fuelling of chainsaws, vehicles or other powered equipment or the mixing of fuel shall not be carried out in pine plantations except on firebreaks, tracks or roads where the ground is clear of all vegetation or inflammable material for a distance of not less than 1.5 metres around the fuelling position.
- 7.26 A contractor shall not start or permit to be started any chainsaw immediately after fuelling until the chainsaw has been wiped to remove any spillage and has been moved clear of the place at which the fuelling was carried out.
- 7.27 Where chainsaws and harvesting machines are being used in the pine plantation a contractor shall ensure:
- a) either that no chainsaw or harvesting machine is used for at least 60 minutes prior to the operator leaving the work area and that immediately before leaving the pine plantation the operator inspects the area covered by the last 2 hours of chainsawing or harvesting machine activity; or

- (b) that a patrol or inspection of each area fallen or worked over by machines in the last 2 hours of each working day is made, not less than 1 hour and not more than 2 hours after the chainsawing or harvesting activity has ceased. This inspection must be made by some responsible person nominated by the contractor and approved by a Forest Officer, and
- (c) when harvesting activity ceases, all harvesting machinery must be parked on a site cleared to mineral earth and approved by a Forest Officer.

A Forest Officer may exempt a contractor from these requirements when in the opinion of the Forest Officer weather conditions allow. This could normally be expected in winter.

7.28 A Forest Officer may prohibit any or all types of logging operations in the pine plantation at such times and for such periods as is necessary when in the officer's opinion such action is warranted by the Department's Fire Danger ratings.

7.29 A Contractor will at the Contractor's expense ensure that each person employed on the contracted works is available for 1 day's training in fire suppression in each fire season. This one day training will normally take place in October of each year but if this is not possible or if new men are to be trained, the training will be arranged at a time agreed to by the Contractor and the F.O.I.C. In addition the Contractor will at the Contractor's expense ensure that each person employed on the contracted works is available for a training period in fire suppression of not more than 2 hours per month for each of the months of November, December, February, March and April of each year.

The equipment for use during the training sessions will be that listed in clause 7.34 (a) and will be provided by the Contractor for such training at the Contractor's expense.

Contractor's personnel engaged solely in hauling operations will be exempt from this requirement.

7.30 Training staff and sites will be provided by the Department at no cost to a Contractor and in reasonable proximity to a Contractor's work sites.

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7.31 If a fire starts in a Contractor's work site within the pine plantation the Contractor's crew must immediately endeavour to suppress the fire with their own equipment under the leadership of the Bush Foreman. As soon as a Forest Officer arrives at the fire the Contractor's crew must work under the direction of that officer. The whole of the Contractor's manpower will continue to operate under the Department's control until relieved or until the fire is declared safe by the senior Department Forest Officer directing the fire suppression operation. Costs incurred by the Contractor must be borne by the Contractor.

7.32 If a fire starts outside a Contractor's work site but within the pine plantation the provisions of Clause 7.31 will apply. However, if in the opinion of the F.O.I.C. the fire was not caused by or did not arise from any negligent act or omission or any want of co-operation on the part of the Contractor or any of his employees, the costs incurred by the Contractor in fighting the fire will be borne by the Department. Certification for payment will be by the senior Department Forest Officer directing the operation. In the event of dispute, the Executive Director's decision will be final.

7.33 A Contractor and his crew working within a pine plantation will not normally be called on to fight fires outside the pine plantation but if this is necessary the provisions of the Conservation and Land Management Act and the Bush Fires Act will apply.

7.34 A Contractor will at all times, at the Contractor's own expense provide on site and maintain in good working order to the satisfaction of the F.O.I.C. firefighting hand tools and equipment complying with current Department specifications on the following basis:

(a) For every 5 men or part thereof employed in the pine plantation (excluding personnel engaged solely in hauling operations) -

- 1 chainsaw
- 2 knapsack sprays with water
- 2 squared off round mouth shovels
- 1 rake hoe

Knapsack sprays and chainsaws provided as part of the normal equipment for fallers under the Code will be considered as equipment for this purpose.

(b) One fire suppression unit for each group of ten workers employed on the contract at any one pine plantation worksite (excluding personnel engaged solely in hauling operations) with a minimum of one unit on each pine plantation worksite.

This fire suppression unit will be of a standard acceptable to the F.O.I.C., but will not deviate in any essential from the standard 450 litre patrol unit currently used by the Department.

The patrol unit will be the "slip on" type mounted on its own prime mover.



(c) The Contractor will at all times and at his own expense maintain each of the fire suppression units specified in Clause 7.34 (b) to an operational standard acceptable to the F.O.I.C. If in the opinion of the F.O.I.C. the condition of a unit makes it unsuitable for fire suppression the F.O.I.C. may either:

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(i) suspend operations until the unit is repaired to his satisfaction; or

(ii) arrange the repair of the unit to his satisfaction and the supply of a replacement unit all at the Contractor's expense until such time as the Contractor's own unit is passed as suitable.

**Soil**

- 7.35 The F.O.I.C. may at his discretion prohibit all falling, extraction, loading and hauling or particular methods or equipment used for falling, extraction, loading and hauling at such times and places as in his opinion are causing or are likely to cause excessive soil damage.
- 7.36 At the completion of extraction or during temporary cessation of extraction, erosion control work must be completed. Extraction tracks and temporary roads subject to erosion must have cross drains installed, as prescribed by a Forest Officer.
- 7.37 The maximum level of damaged soil in any coupe, sub coupe or faller's block 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 Contractor will be moved to the most suitable 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 it will not be re-opened until the local Soil Dryness Index exceeds the limit specified by the F.O.I.C.

7.38 A Contractor shall at his expense when so required by the F.O.I.C. repair all soil damaged by logging. Rehabilitation work shall be carried out during the summer following logging to the satisfaction of the F.O.I.C.

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7.39 A Contractor shall at his expense carry out any measures specified by the F.O.I.C. to prepare denuded areas for revegetation. These areas shall include landings, gravel pits and temporary roads used during the logging operation.

7.40 If a contractor fails to minimize and/or repair soil damage as required by the F.O.I.C. any work requiring to be done because of this may be done by the F.O.I.C. at the Contractor's expense and the money expended may be recouped under Clause 2.7.

#### **Noxious Weeds**

7.41 A Contractor 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.

#### **Feral Animals**

7.42 Contractor shall not interfere with any activities taking place to control feral animals.

**Rare Flora and Fauna**

- 7.43 A Contractor, 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.
- 7.44 A Contractor shall take all necessary steps to minimise damage to all species of protected native fauna.

**Water**

- 7.45 A Contractor shall take any special measures prescribed by the F.O.I.C. for the protection of water purity in water courses in or adjacent to forest areas in which he is working.
- 7.46 A Contractor shall ensure that no logging machinery or vehicles enter stream reserves, unless authorised by a Forest Officer.
- 7.47 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 2.7.

**SECTION 8:****QUANTITY DETERMINATION, RECORDING AND PAYMENT**

8.1 The determination of log quantity will be by the Departmental method currently applying for the particular log product type and/or Contract of Sale. ~~These methods are:~~

- (a) True volume under bark for individual logs, using length and mid diameter under bark measurements and the appropriate Department Hardwood Volume Table (eg. hardwood sawlogs).
- (b) Weight as measured by approved weighbridge (eg. hardwood sawlogs and chiplogs).
- (c) Number of pieces by length class (eg. SEC poles).
- (d) Number of pieces by length and crown diameter class (eg. bridge timbers).
- (e) True volume under bark for individual logs, using length and small end diameter under bark class and the appropriate Department Log Volume Table (eg. pine mill logs).
- (f) True volume under bark calculated by bin measure using the appropriate conversion factor (eg. pine particle board logs).
- (g) According to agreement between the Department and the Contractor (eg. some specialty timbers).

- 8.2 No haulage of logs of any type may take place unless the truck driver is in possession of a completed Delivery Note or other approved documentation to cover the load he is carrying. The Contractor will be responsible for ensuring that the Delivery Note or other approved documentation is certified as received by the authorised representative of the receiver before passing to him the original and/or the purchaser's copy of the approved docket.
- 8.3 Payment/invoicing to all parties will proceed only on the basis of the original copy of the Delivery Note or other approved documentation, correctly completed and certified by a Forest Officer.
- 8.4 On receipt from a Forest Officer of a certificate covering completed Delivery Notes or other approved documentation the Accountant or other person authorised by the Executive Director shall pay the Contractor for any work done in accordance with the terms of the Contract. 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 Contractor and deemed by the F.O.I.C. in his absolute discretion to be sufficient to warrant such payment being made to the Contractor.
- 8.5 Payments made under Clause 8.4 will be subject to deduction of any amounts certified by the F.O.I.C. as payable by the Contractor under Clauses 2.7, 2.14, 2.15, 3.7, 3.10, 3.12, 3.13, 4.5, 6.5, 6.6, 6.14, 7.40 and 7.47 of this Code.
- 8.6 The F.O.I.C. will use his best endeavours to ensure that all payments to the Contractor under Clause 8.4 are made promptly.

**SECTION 9:****SAFETY**

- 9.1 A Contractor shall comply with the safety requirements laid down by the F.O.I.C., 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 all forest areas at all times by all persons engaged in logging (TIR Reg 56).
- 9.3 Safety boots shall be worn in all forest areas at all times by all persons engaged in logging.
- 9.4 A Contractor 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 F.O.I.C. 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 The F.O.I.C. and/or an Inspector under the Timber Industry Regulation Act, may require a Contractor 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 A Contractor shall at the request of the F.O.I.C. make himself or his Bush Foreman available to participate in the investigation of accidents involving himself, his employees, his vehicles or his equipment.