



The Best Place on Earth

Ministry of Forests  
and Range

Revenue Branch

MEMORANDUM

File: 195-30/CGNF

June 11, 2008

**BY EMAIL**

To: Regional Executive Directors

**Re: Amendment No. 2 – CGNF Standards and Procedures for the  
Coast Forest Region**

I hereby approve Amendment No. 2 to the CGNF Standards and Procedures for the Coast Forest Region and attach a copy for your use.

The following has been amended:

- |                 |   |
|-----------------|---|
| Section 1.1.3   | Helicopter logs lengths table added.  |
| Section 3.2.3.4 | All log grades except peeler can have occasional larger knots.                          |
| Appendix III    | Use the Map Area Statement Card type D maturity indicator for CGNF cruise compilations. |



This amendment is effective June 15, 2008. Further amendments or revisions to this manual require my approval.

Murray Stech  
Director  
Revenue Branch

Attachment



pc: Els Armstrong, Cruising Co-ordinator, Southern Interior Forest Region  
Ron Alton, Cruising Co-ordinator, Northern Interior Forest Region  
Bruce Markstrom, Cruising and Waste Co-ordinator, Coast Forest Region



# **Amendments**

---

**Amendment No. 2 - Effective June 15, 2008**

For your convenience the current amendment updates appear in red text. All changed graphics are indicated with a red arrow . Two arrows  represents text removed.

<b>Section</b>	<b>Description</b>
Section 1.1.3	Helicopter log lengths table added.
Section 3.2.3.4	All log grades except peeler can have occasional larger knots.
Appendix III	Use the Map Area Statement, card Type D maturity indicator for CGNF cruise compilations.

**Table 1: Summary of Sorts, Grades, Standard Log Lengths and Application Notes**

The following end use sorts, grades and standard lengths will be used:

<b>SORT TYPE</b>	<b>GRADE</b>	<b>STANDARD LENGTHS (m)</b>	<b>NOTES</b>
Lumber	D,F,B,G	13,11,8	Min length 5 m
Peeler	C	13,11,8	Min length 5 m
Sawlog	H,I	13,11,8	Min length 5 m
Gang	J	13,11,8	Min length 5 m
Shingle	K,L,M	13,11,8	Min length 4 m, 1 m multiple up to 13 m / attempt to use standard lengths.
Utility	U,X	13,11,8	Min length 5 m
Pulp	Y	13,11,8	Min length 3 m, 1 m multiples up to 13 m / attempt to use standard lengths.

*Log lengths of 4 and 6 m are allowed for all sorts for helicopter logging only.*

<b>NON SORT</b>	<b>GRADE</b>	<b>STANDARD LENGTHS (m)</b>	<b>NOTES</b>
Breakage	Z Shatter and non-recoverable	1 m multiples	Z grade is not intended to meet the statutory definition of firmwood reject.
Missing Wood	N	1 m multiples	Net Factor = "00"

### 1.1.3 Tree Form

Irregular tree forms such as forks/crooks/pistol butts may necessitate the use of non-standard log lengths. Pencil bucking Y or Z-grade segments is acceptable if the tree form will affect the standard log length and/or sort. See Figure 1.1 where tree form affects the standard log lengths. Sweep in deciduous trees may not change the sort or the standard length provided that the effect of the sweep can be dealt with by assessing the logs in 2.5 m increments.

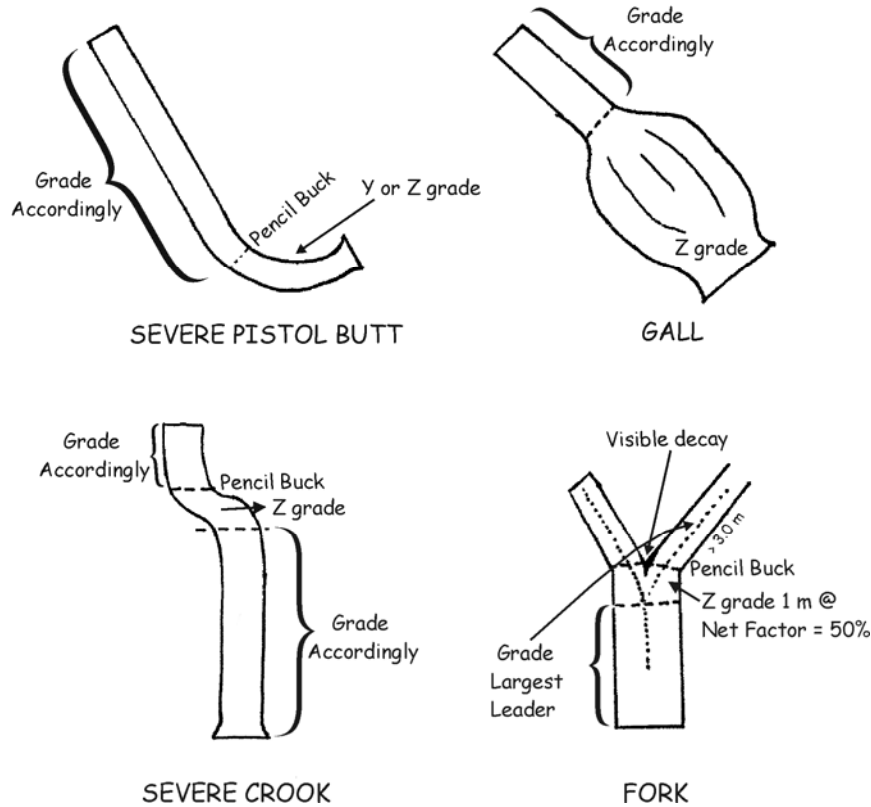


Figure 1.1 Irregular Tree Form.

Major defects may necessitate non-standard log lengths.

Shingle cedar can be 4 metres to 13 metres and 1 metre increments to accommodate excessive decay and bark seams.

Helicopter log lengths are per weight restrictions. The 4 and 6 metre lengths can only be used in pre-identified helicopter cutblocks.

Estimated Log Top DIB (centimetres)	Log Lengths				
	1 <sup>st</sup> Log	2 <sup>nd</sup> Log	3 <sup>rd</sup> Log	4 <sup>th</sup> Log	5 <sup>th</sup> Log
<75.0	13, 11, 8	13, 11, 8	13, 11, 8	13, 11, 8	13, 11, 8
75.0 – 100.0 cm	8	13, 11, 8	13, 11, 8	13, 11, 8	13, 11, 8
100.0 – 149.9 cm	6	8	13, 11, 8	13, 11, 8	13, 11, 8
150.0 – 200.0 cm	4	6	8	13, 11, 8	13, 11, 8
>200 cm	4	4	6	8	13, 11, 8

The last log in a tree will almost always have a non-standard length and so it is always coded as a "99". The computer calculates the last log length based on the taper equation and merchantable top diameter.

Fallen trees with roots attached will have a 1 metre Z grade for the first log if they are < 100 cm at DBH and a 2 metre Z grade if they are > or = 100 cm.

### 3.2.3 Guidelines

#### 3.2.3.1 Heart Rot:

- Conk, blind conk, and rotten branches have specific lengths and grades applied.

Conk	Y	2 m above, 4 m below, 50% sound
Blind Conk	Y	4 m above, 6 m below, 50% sound
Rotten Branch	Z	1 m above, 1 m below, 50% sound

- Severe cylindrical cat face should be pencil bucked at the top of the cat face, with that length and net factor used to determine the grade.

#### 3.2.3.2 Butt Rot

- Butt rot is generally included with the log for its standard length with the exception of the cedar shingle sort.
- Refer to the Butt Rot Guide for the Length Deduction table. Note that the net factor may determine the grade, based on the % lumber recovery or other grade requirements. The table also provides a guide for “grade considerations”.
- Butt rots are considered to be conical unless there is visible evidence that it is cylindrical.
- Schweinitzii - The section affected by schweinitzii and other butt rots can not be a peeler sort.

**Table 18 Butt Rot Guide for Length Deductions**

Ratio	Length Deduction	Grade Consideration*
¼ diameter	0.2 m	0.6 m
½ diameter	0.4 m	1.8 m
¾ diameter	1.2 m	3.6 m
<sup>4</sup> / <sub>4</sub> diameter	2.4 m	4.2 m
Sounding	0.8 m	2.4 m
P. schweinitzii	0.6 m	2.0 m
*Grade consideration describes how much of a log will not produce 2 by 4's at least 8 feet long.		

### 3.2.3.3 Frost Cracks

- Multiple frost cracks and their position around the tree may affect lumber recovery and must be considered in the determination of the sort and grade.
- Peeler sorts will not permit frost cracks.

The angle, position, or net factor will determine the appropriate grade based on % lumber recovery and/or % merchantable.

### 3.2.3.4 Occasional Larger Knots

**All grades except peeler can have occasional larger knots** (OLK's) to the extent of one per 3 meters of log length [two per 3 meters for X grade logs over 50 centimetres top diameter]. The oversize knots must be confined to the portion of the log where the allowable knots are permitted.

### 3.2.3.5 Weather Checks and/or Insect Damage

- A check is a separation of the wood, at right angles to the annual rings. There is no sound wood deduction for weather checks or insect damage unless there is rot associated with them.
- Logs with <10 cm sound core are Y-grade
- Logs with <10 cm sound collar are Y-grade.



## Appendix III Transition from Loss Factor to CGNF Cruising

CGNF cruising commences January 1, 2007. Loss factor cruising will be required concurrently with CGNF cruising for at least one year.

The following standards are required until dual data collection is no longer required:

Dead useless, live useless and dead potential tree classes will be recorded as follows:

1. Dead Potential Tree Classes with a least an 8 m U-grade – CGNF all of the logs in the tree.
2. Dead Potential Tree Classes that do not have at least an 8 m U-grade – record the CGNF attributes as Z-99-00.
3. Dead Useless Tree Classes with at least an 8 m U-grade – CGNF all of the logs in the tree. Record the DBH and the total projected tree height.
4. Dead Useless Tree Classes that do not have at least an 8 m U-grade – do not record or measure these trees.
5. Live Useless Tree Classes – CGNF the whole tree as per the standards. Record the DBH and the total projected tree height.
6. Use the Map Area Statement Card Type D block maturity indicator for the loss factor and the CGNF cruises in the transition period from loss factor to CGNF cruising.

### Appraisal and Timber Merchantability Standards

Down Tree Codes – Position 63 on the tally card – continue to code E or G as per section A.6.3 of the *Cruising Manual*. Only one code will be necessary once loss factor cruising is not required.

Live/Dead – Postion 64 on the tally card – code L for live trees and D for dead trees since the CGNF cruise compilation program requires this information for the assignment of the net volume adjustment factors.

Mature/Second Growth – code “M” for mature coniferous trees greater than 140 years old and mature deciduous trees greater than 40 years old. Code “S” for coniferous trees less than 141 years old and deciduous trees less than 41 years old. The percent immature by block and the percent second growth for the cutting authority will continue to be calculated using the age in 10s and tree class while these attributes will be calculated using codes “M” and “S” for CGNF cruising.

Note – dead useless trees that do not have at least an 8 m U-grade log in them are no longer recorded in CGNF and loss factor cruises.

This page is intentionally left blank.