

File: 280-20

October 1, 2004

BY EMAIL

To: Interior Regional Managers

From: The Honourable Michael de Jong
Minister of Forests

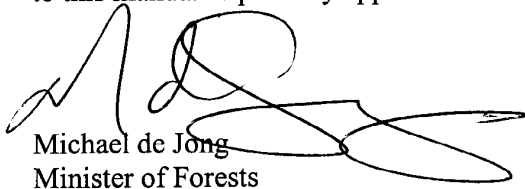
Re: Amendment No. 13 to the *Interior Appraisal Manual*

I hereby approve Amendment No. 13 to the *Interior Appraisal Manual* and attach a copy for your use. The following changes have been made:

- | | |
|-------------------------|--|
| Section 2.6: | Point of Appraisal. The revised text includes criteria to be used when choosing an alternate Point of Appraisal due to the closure of the milling facility associated with the least cost point of appraisal. |
| Section 4.5.1.1 and .2: | Truck Haul Variables. The text regarding the transfer of current cutting rights to address a bark beetle infestation is revised. The economic test required before a transfer is approved has been simplified, and a requirement for the increased consumption of beetle infested timber has been added. |



This amendment will come into force on October 1, 2004. Further amendments or revisions to this manual require my approval.



Michael de Jong
Minister of Forests

Attachment

pc: Bill Howard, Director, Revenue Branch

All Subscribers, *Interior Appraisal Manual*

FOR FURTHER INFORMATION CONTACT:

John Cook
Sr. Timber Pricing Forester (Interior)

Revenue Branch
Ministry of Forests
PO Box 9511 Stn Prov Govt
Victoria, B.C. V8W 9C2

Phone: 356-7675
PROFS userid: John.Cook@gems2.gov.bc.ca
FAX: 387-5670

MANUAL TITLE

Interior Appraisal Manual

REVISION No.

Amendment No. 13

ISSUE DATE	
------------	--

October 1, 2004

MANUAL CO-ORDINATOR

Judy Laton
Revenue Branch

AUTHORIZATION (Name, Title)

W. Howard
Director, Revenue Branch

Please make the following changes to your copy of the above Ministry manual. Please insert the following specified pages and **file this notice** immediately after the Amendments Tab.

ACTION (Remove/Insert)	(VOL.) CHAPTER-SECTION-SUBJECT TABLE OF CONTENTS	PAGE(S)	COMMENTS
REMOVE	Chapter 2	13 - 14	After Chapter 2 Tab
INSERT	Chapter 2	13 - 14	
REMOVE	Chapter 4	35 - 38	After Chapter 4 Tab
INSERT	Chapter 4	35 - 38	
REMOVE	Index	3 - 4	After Index Tab
INSERT	Index	3 - 4	
INSERT	Minister's Letter and Manual Revision Transmittal		After Amendments Tab

2.6 Point of Appraisal

The appraiser must select the point of appraisal, from Table 2-1, which will produce the least cost total harvesting and transportation estimate for the timber on the cutting authority area unless;

- i. five years have passed from the date that a milling facility was permanently rendered incapable of producing lumber and chips, and
- ii. it was the only milling facility associated with that point of appraisal.

In which case, the appraiser must select the next the point of appraisal, from Table 2-1, which will produce the least cost total harvesting and transportation estimate for the timber on the cutting authority area.

All species, qualities and sizes of timber must be appraised to a single point of appraisal. For the purposes of determining the least cost total harvesting and transportation estimate, the specific locations that were used in measurement of cycle time for each point of appraisal in Table 2-1 as of October 1, 2003, will continue to be used. The appraiser must then assume the manufacturing costs and average market values for the Zone relative to that point of appraisal.

Table 2-1 Points of Appraisal

Northern Interior (Zone 5, 15, 25 & 35)			
Bear Lake	Fort St. James	Mackenzie	Smithers
Burns Lake	Fraser Lake	Prince George	Strathnaver
Clear Lake	Houston	Quesnel	Upper Fraser
Engen	Isle Pierre		Vanderhoof
Skeena (Zone 6, 16, 25 & 36)			
Terrace	Carnaby	Hazelton	Kitwanga

Southern Interior (Zone 7, 17, 25 & 37)					
Adams Lake	Galloway	Merritt	Thrums		
Armstrong	Grand Forks	Midway	Valemount		
Canal Flats	Kamloops	Okanagan Falls	Vavenby		
Canoe	Kelowna	Park Siding	Westbank		
Castlegar	Lavington	Princeton	Ymir		
Craigellachie	Louis Creek	Radium			
Creston	Lumby	Revelstoke			
Elko	McBride	Slocan			
South Cariboo (Zone 8, 18, 25 & 38)					
100 Mile House	Chasm	Lytton	Squamish	Williams Lake	Boston Bar
Fort Nelson - Peace (Zone 9, 19 & 25)					
Chetwynd	Fort Nelson	Fort St. John	Taylor		

2.6.1 Method of Transportation to be Used in Determining Point of Appraisal

The estimate of transportation costs for a cutting authority area must be determined by using the criteria for determining the transportation cost estimate as set out in this manual for the method of transportation referred in this manual to the point of appraisal that will produce the least total harvesting and transportation cost estimate unless:

- a. that particular method of transportation is not permitted by the cutting authority, or
- b. as provided in section 4.5.1(1).

In considering whether or not a particular method of transportation is not permitted by the cutting authority, the appraisal coordinator must not consider, nor take into account, nor have regard for:

1. Any destination referred to in the cutting authority.
2. Any enactment.
3. Any document other than the cutting authority.
4. Any other fact.

4.5 Log Transportation

The log transportation phase covers all aspects of log movement from the place of initial loading to the point of appraisal, including truck haul, rail, water and other specialized transportation. The use of section 4.5.1, 1., c. does not affect any other provision that requires the use of the least cost point of appraisal.

4.5.1 Truck Haul Variables

1. Cycle Time:

For appraisal purposes, weighted average Cycle Time (CT) is the estimated time in hours (rounded to the nearest 0.1 hour) for transporting logs from the centre of a cutting authority area to:

- a. the least cost point of appraisal,
- b. the appraisal place of unloading in the case of water or rail transport, or
- c. where the regional manager is satisfied that a transfer of current cutting rights to address a bark beetle infestation will result in:
 - i. equal or higher sawlog stumpage rates for the timber to which the current cutting rights are transferred to, when compared to the sawlog stumpage rates for the timber where the current cutting rights are transferred from and,
 - ii. an increase in milling consumption of beetle infested timber by the licensee whose current cutting rights are transferred, then

the place that would have been the point of appraisal if the timber had been harvested in the area from which the current cutting rights are transferred from.

2. To determine weighted average cycle time:

- a. establish the geographical centre point of each cutblock and project this point to the nearest road for measurement purposes,
- b. from this centre point, determine the cycle time to the nearest junction serving all cutblocks,
- c. weight the cycle time for each cutblock by the volume on the cutblock and determine the average weighted cycle time to the junction. If the cutblock volume is not available, the cutblock area is used, and
- d. determine the cycle time from the junction to:
 - i. the least cost point of appraisal,
 - ii. the appraisal place of unloading,
 - iii. if the conditions under 4.5.1 (1)(c) are met, then

the place that would have been the point of appraisal if the timber had been harvested in the area from which the current cutting rights are transferred from.

and add this to the average weighted cycle time from 'c.' above.

The cycle consists of loading, hauling, weighing, unloading, return time, and unavoidable delays. The cycle time will normally be determined by taking into consideration all the factors that may affect it: distance, expected rate of speed, necessary delays, expected standard of roads and their maintenance, traffic density, and seasonal weather conditions.

In many cases standard cycle time schedules from specific road junctions to the point of appraisal have been developed and should be used (Sector times).

Unavoidable delays are periods when the truck is on the job but not operating due to unpredictable delays such as; tightening binder chains, minor repairs made by driver, checking and adjusting brakes, minor delays prior to loading and unloading, refuelling, etc. Unavoidable delay time does not include any breakdown which requires shop repair, the services of a skilled mechanic, or a spilled load of logs. The time for load, unload and unavoidable delay is set at 75 minutes for cable yarding systems (see section 4.4.3 (4)) and 60 minutes for all other systems (see section 4.4.3 (1), (2), & (3)).

3. Haul Method

Cost estimates do not recognize different types of logging trucks. The estimate is based upon the possible haul method, either highway or off-highway and not specifically on the licensee's particular method.

Highway hauling is assumed when loaded logging trucks must travel in part over roads administered under the *Highway Act*, without truck-to-truck transfer, to the point of appraisal, or on roads administered under the *Highway (Industrial) Act* where prolonged known road restrictions prevent the use of oversize loads, or in all instances where the volume per tree is less than 0.20 m³.

Off-highway hauling is assumed when loaded logging trucks can travel over roads administered under the *Highway (Industrial) Act* to the point of appraisal, or to a recognized reload. Where prolonged known restrictions (e.g., bridge load limit, narrow road, through rock cut, WCB Regulations, etc.) prevent the use of oversize loads, highway haul is assumed.

4.5.2 Truck Haul Cost Estimates

4.5.2.1 Primary Haul

The primary truck haul cost estimate is determined from the following equation.

1. Highway Haul

For all highway haul equations if the CT is greater than 0 then the minimum is \$0.12/m³. If CT = 0 then \$/m³ = 0.

$$\$/\text{m}^3 = \text{CONSTANT} + (2.02 * \text{CT}) - (1.46 * \text{CE\%/100}) + (0.24 * \text{FI\%/100}) \\ + (1.92 * \text{HE\%/100}) - (2.24 * \text{WH\%/100}) - (0.63 * \text{SP\%/100})$$

Where:

REGION	:	Nelson	Prince George *	Other
CONSTANT	=	0.35	-0.44	0.08

* Excluding FNP

2. Off-Highway Haul

For all off-highway haul equations if CT is greater than 0 then the minimum is \$0.02/m³. If CT = 0 then \$/m³ = 0.

$$\$/\text{m}^3 = \text{CONSTANT} + (1.39 * \text{CT}) - (2.48 * \text{CE\%/100}) + (1.42 * \text{HE\%/100}) \\ - (0.81 * \text{SP\%/100})$$

Where:

REGION	:	Cariboo	FNP	Kamloops	Nelson	Other
CONSTANT	=	1.26	1.05	1.11	1.32	0.56

For both highway and off-highway.

CT = Cycle time to the nearest 0.1 hours

CE = Cedar LA = Larch

HE = Hemlock SP = Spruce

PL = Lodgepole Pine PW = White Pine

FNP = Fort Nelson & Peace (Fort St. John, Dawson Creek) Forest Districts

Prince George = Fort St. James, Mackenzie, Prince George, Vanderhoof and Robson Valley Forest Districts

Prince Rupert = Kalum, Nadine (Lakes, Morice), Skeena, and Stikine (Kispiox, Bulkley/Cassiar) Forest Districts

Kamloops = Cascades (Merritt, Lillooet), Kamloops, Clearwater and Okanagan Shushwap (Penticton, Vernon, Salmon Arm) Forest Districts

Cariboo = Chilcotin, 100 Mile House, Central Cariboo (Horsefly, Williams Lake) and Quesnel Forest Districts

Nelson = Arrow Boundary (Arrow, Boundary), Columbia, Kootenay Lake and Rocky Mountain (Cranbrook, Invermere) Forest Districts

For both hauling equations, the species listed are the species percents taken from the appraisal data submission to the nearest 1.0 percent.

4.5.2.2 Secondary Haul

The secondary haul cost estimate is made when logs must be truck hauled between the dewater and reload site to the appraisal point.

$$$/m^3 = 1.763 * CT$$

CT for the secondary haul is determined using the method described in section 4.5.1(2).

Moving Assistance, 4-2
MPS Stumpage Rate, 7-10

N

New Construction, 4-7
New Construction, 4-22

O

Off-Highway Haul, 4-37
Off-Highway Hauling, 4-36
Operating Cost, 1-7, 5-3
Operational Road, 4-12
Order, 2-2
Other Land Use Charges, 4-44
Other Roads, 4-44
Overhead, 4-2
Overhead Cable Logging, 4-25, 4-31
Overland Construction, 4-22
Overtime, 4-2, 4-52

P

Partial Cut Variables, 4-26
Partial Cutting, 4-27
Percent (%) Stud AMV, 3-9
Percent Blowdown, 4-26
Percent Rock, 4-13
Percentage of the Indicated Stumpage Rate, 1-7
Permitted Roads, 4-44
Pipe Line Rights-of-Way, 6-13
Pipeline Crossings, 4-21
Point of Appraisal, 4-35
Prescribed Minimum Stumpage Rate, 7-10
Primary Haul, 4-37
Profit and Risk Margins, 4-2

R

Railway, 4-39
Railway Transportation, 4-40
Random Lumber, 3-2
Random Lumber AMVs, 3-3
Reappraisal, 2-2
Reconstruction, 4-22
Reconstruction and Replacement, 4-8

Reload, 4-38
Repair, 4-2, 4-52
Request for Approval for a Road Use Charge, 4-44
Reserve Stumpage Rate, 1-7
Retaining Walls, 4-22
Right-of-way Felling, 4-12
Rip Rap, 4-19
Road Type, 4-12
Road Use Charges, 4-44
Roads, 4-6
Rock, 4-13
Rock Drilling, 4-19
Root Disease Control, 4-3
Routine Road Maintenance Cost Estimate, 4-41

S

Secondary Haul, 4-38
Section Length, 4-12
Sector Times, 4-36
Selling Price, 1-7, 5-3
Shipping Differential, 3-10
Side Slopes, 4-22
Silviculture Prescription, 4-3
Site Preparation, 4-19
Skidder Swinging, 4-3
Skyline, 4-32
Skyline Yarding Distance, 4-29
Slope, 4-26
Small Log, 3-2
Small Tree Dummy Variable, 4-29
Small Tree Volume, 4-28
Snow Roads, 4-15
Snow/Ice Road (WINTER), 4-12
Soil Moisture Regime (SMR), 4-14
Special Structures, 4-22
Stabilizing Material, 4-19
Stripping, 4-12
Stud Lumber, 3-2, 3-3
Stump Removal, 4-12
Subgrade Construction, 4-12
Subgrade Cost Estimate, 4-14
Supplies, 4-2, 4-52
Supply and Delivery, 4-19

T

Tabular Cost Estimates, 4-6
Tally Sheets, 4-4
Total Coniferous Volume of greater than 2
000 m³ to 5000 m³, 6-3
Total Coniferous Volume of Less than 2000
m³ or less, 6-3
Total Merchantable, 4-5
Total MPS Stumpage Rate, 7-11
Total Stumpage Rate, 1-7
Tow, 4-39
Tributary Cutting Authorities, 4-6
Truck Hauling, 4-19
Truck to Rail Transfer, 4-39
Turnout Construction, 4-12

U

Uphill Side Slope, 4-13
Upset Stumpage Rate, 1-7, 5-8
Upset Stumpage Rate Calculation, 7-10

V

Value Index, 1-7, 5-2, 5-8
Volume per Hectare, 4-5
Volume Per Hectare, 4-26
Volume per Tree, 4-28

W

Wages, 4-2, 4-52
Waste, 4-5