Quality Specifications

Aspen Pulp Log Specifications

Minimum Log Top diameter inside bark	Preferred 12.5cm (5 inch), minimum 10cm (4 inch)
Minimum Butt Diameter inside bark	20 cm (8 inch)
Maximum Diameter outside bark including flares, knots, burls, etc.	50 cm (19.5 inch)
Sort One Preferred Log Length	15.0 meters (49 feet)
Sort One Minimum Log Length	10.0 meters (33 feet)
Sort One Acceptable Lengths	10.0 to 15.0 meters (33 to 49 feet)
Sort Two Preferred log Length	6.0 meters (20 feet)
Sort Two Minimum Log Length	4.0 meters (13 feet)
Sort Two Acceptable Log Length	4.0 to 6.0 meters (13 to 20 feet)

Note: Logs not meeting the above specifications for quality and dimension will be subject to payment deduction under Canfor Taylor's Log Quality Assessment System.

Loading Specifications for Pulp Logs

- Logs must be loaded no higher than the outside trailer stake and must be suitably secured and timber marked as per regulation.

- **Long Loads (Sort One):**
  - Log lengths from 10 to 15 meters (33 feet to 49 feet) may be mixed together and must be delivered as a long load.

- **Short Loads (Sort Two)**:
  - Log lengths from 4 to 6 meters (13 feet to 20 feet) may be mixed together and must be delivered as a short load.

- **Do not cradle short lengths in with a long load or mix long logs with short logs.**

- When loading long logs, as much as possible keep all butts to front for the bottom of load and all butts to the rear for the top of the load, or visa versa. The objective is to enable the mill loader to separate grapples of logs with butts oriented in one direction.

Acceptable and Unacceptable Defects, Aspen pulp logs

Logs exceeding specified tolerances are subject to penalties under the Log Quality Assessment System.

Defect	Specified Tolerance	Acceptability (for Pulp logs)	Solution
Burl	Any log containing burl extending more than than 5 cm (2 inches) from the log is….	Unacceptable	Buck log to shorter length or buck off burl flush with bole of log. If unable to remanufacture and meet minimum dimension requirements, reject log
Rotten cat faces	Any catface with rot or decay present in the defect is…	Acceptable if <25% by diameter and less than 1 meter in length	N/A
Spiral and Straight Check	Tight spiral and straight check is…	Acceptable	N/A
Crook	Any log containing crook greater than the diameter of the log measured in a 3 meter straight line along the log is…	Unacceptable	Buck log to shorter length. If unable to remanufacture and meet minimum dimension requirements, reject log.
Dead/Dry logs	Dead or Dry logs are…	Unacceptable	Reject log
Debris	Any gravel, rocks, loose branches, stumps, plastic, etc mixed in the load is…	Unacceptable	
Butt Flare	Butt flare extending more than 10 cm (4 inches) from the bole of the tree at any point on the circumference is …	Unacceptable	Trim flare; do not long-butt.

Defect	Specified Tolerance	Acceptability (for Pulp logs)	Solution
Fork	Any fork left in the log is….	Unacceptable	Cut one or both legs of fork flush with bole of tree.
Limbs or branches	Any limbs or branches extending from the bole of the tree more than 5cm (2 inches) is…	Unacceptable	Trim branch stubs flush with tree bole.
Oversize knots		Acceptable	N/A
Ring Shake, Wind shake		Acceptable	N/A
Rot or decay	Any log containing more than **50% rot or decay by diameter** is …	Unacceptable	Note: Rot is fibre than can easily be picked out with a sharp object from the log (i.e. a screwdriver). Stain is a discoloration of the wood but the fibre is still firm.
Conk	Conk is an indicator of rot and is….	Unacceptable	Buck out portion of log with conk to the point where log diameter is less than 50% rot by diameter.
Sweep	Any log containing sweep greater than the log diameter as measured in a straight line over a 3 meter length is….	Unacceptable	Buck log to point where sweep is less than 50%. If unable to remanufacture and meet minimum dimension requirements, reject log.
Split (caused by harvesting)	…	Unacceptable if greater than 1 meter in length	
Slabs	Slabs meeting log length and diameter requirements are….	Acceptable	N/A
Shatter or broken ends	Any log containing top or butt shatter or broken ends is...	Acceptable if shatter does not extend more than 1M into the log.	N/A

Defect	Specified Tolerance	Acceptability (for Pulp logs)	Solution
Cottonwood, Black Poplar	Any **load** containing more than 5% Cottonwood by **piece count** is…	Unacceptable	N/A
Paper birch, White birch		Acceptable	N/A
Dry Wood	Any log that is dead and dry is ….	Unacceptable	reject log
Burnt or charred wood	Any amount of charred or burned wood is….	Unacceptable	Buck off charred portion of log. If unable to remanufacture and meet minimum dimension requirements, reject log.
Pistol Butt	Any pistol butt deflecting more than 1/4 of the butt diameter is …	Unacceptable	Buck back to meet log dimension requirements.
Oversize Diameter	Any log greater than 50 cm (19.5 inch) in diameter at any point of the log is….	Unacceptable	Remanufacture and sort for Peace Valley OSB or reject.
Over-length	Any log over 15.1meters in length is	Unacceptable	Buck back ; overlength logs will jam and damage milling equipment.
Off-Length	Any log bucked at 6.1 to 9.9 meters or less than 4.0 meters	Unacceptable	Buck logs to meet length sort requirements.
Undersize (Grade 6)	Any butt log < 20cm (8 inch), or any portion of a Grade 6 log is…	Unacceptable	Reject

LOG QUALITY ASSESSMENT

Overview

The log quality assessment system ensures that Canfor Taylor Pulp receives properly manufactured and loaded logs that will optimise recovery and produce the quality of chip required for consistent high grade pulp production. The Log Quality Assessment System grades the quality of logs by ranking defects in accordance to their effect on chip and pulp production, mill recovery, and utilization standards.

There are two parts to the Quality Assessment System; Percent Quality and Flat Penalty Assessment. The system assigns points to each defect in a selected sample load, and a quality percent is calculated. Percentage scores are based on an average over a pay period and Percent Quality penalties are applied at threshold levels as discussed in the *Penalty Schedule.*

Over-length, mis-sorted lengths, and oversize logs may be penalized as a flat fine against each piece. Embedded metal or gravel will also be penalized on an occurrence basis.

Sampling Procedures

Sampling frequencies will be based on volume delivered from each Timbermark. Randomly generated quality samples, and Ministry Of Forests scale samples will be used to represent volume delivered in a pay period. Loads that contain obvious mismanufactured logs may also be used for sampling .

Calculation of Percent Quality

Points are assessed for each defect . If a log has more than one defect, the highest ranking defect will be tallied. The following page outlines the defects and points used to calculate the Percentage score. The count of each defect multiplied by the value of the defect will result in a points score.
To calculate the percent score:

100-((100 X Total Points) / (15.0 X Pieces))

1) Total the number of points assessed in the load, multiply by 100.
2) Multiply the pieces in the load by 15.0 (average sheet points).
3) Divide the number from step 1 by the number from step 2.
4) 100 minus the result from step 3 equals ***Quality Percent Score.***

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Contractor:

QUALITY SCORE:			
Date:		**Bush Slip:**	
Inspector:		**Pieces:**	
Timbermark:		**Purchased Wood:**	
Block:		**MOF:**	
LOAD NUMBER:		**LENGTH SORT:**	

DEFECT	PTS. PER DEFECT	COUNT	COMMENTS
CULL LOG (dead/dry, charred fibre, >50% rot volume)	**25**		
BUTT FLARE (>4")	**20**		
BUTT ROT >50% DIAMETER	**20**		
PISTOL BUTT	**20**		
PROTRUSION >2" (spikes, burls, attached limbs)	**20**		
EXCESSIVE CROOK	**20**		
UNDERSIZE (<8" butt diameter)	**20**		
ROTTEN CATFACE	**15**		
DEBRIS/LOOSE LIMBS	**15**		
COTTONWOOD (5% tolerance)	**15**		
EXCESSIVE TOP ROT	**10**		
SMALL TOP (<4" inside bark)	**10**		
EXCESSIVE SWEEP	**10**		
OFFLENGTHS	**10**		
BROKEN ENDS, SPLITS/SHATTER (>1m)	**5**		
FORKS/MARMS	**5**		
TOTAL SHEET POINTS	240		

FLAT PENALTY ASSESSMENTS:

LENGTHS >15.1 METERS ----------$20.00 EACH
OVERSIZE LOGS ----------$20.00 EACH
MIS-SORTED LENGTHS ----------$20.00 EACH
EMBEDDED METAL/GRAVEL--------$50.00 EACH

Penalty Assessment Schedule- Taylor Pulp

The total number of points and pieces assessed in a pay period is used to calculate the average pay period score. Penalties are applied to all tonnes hauled in a pay period according to the schedule:

Average Pay Period Quality Score	Per Tonne Penalty Deduction
85% to 100%	**No Deduction**
80% to 84.9%	**$0.15 per tonne**
75% to 79.5%	**$0.25 per tonne**
Less than 75%	**$0.50 per tonne**

Oversize and over-length logs may be assessed a flat penalty of $20.00 per log. The points for and piece count of flat penalty assessments do not count toward a pay period average percent score. Mis-sorted lengths will be assessed $20 each. Embedded metal or gravel will be assessed $50 per occurrence.

Truck loads of logs that do not meet the ***Loading Specifications*** may be assessed a flat fine up to $250.00.

Consistent quality scores below 75% may result in a refusal to accept further deliveries until quality issues are addressed.

A report for all loads assessed will be printed and available for pick up at the scalehouse. A pay period summary for Log Quality will be included with Contractor Pay Statements.