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Wood Measurement Rules



Maine Department of Agriculture,
Food & Rural Resources

Division of Quality Assurance & Regulations

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CHAPTER

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STATE OF MAINE BY GOVERNOR

PUBLIC LAW

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—
IN THE YEAR OF OUR LORD
NINETEEN HUNDRED AND NINETY-EIGHT
—

H.P. 1013 - L.D. 1405

An Act to Strengthen Laws Regarding Timber Theft and Timber
Harvesting

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 10 MRSA §2361-A, sub-§§5-A and 10-A are enacted to read:

5-A. Hauler. "Hauler" means the person, company or other entity that owns the truck or trailer on which a load of wood is transported.

10-A. Trip ticket. "Trip ticket" means the form used to identify the origin and destination of a truckload of wood.

Sec. 2. 10 MRSA §2364-B is enacted to read:

§2364-B. Transportation of wood

A person transporting wood must comply with the provisions of this section.

1. Trip ticket required. Except as provided in subsections 3 and 4, each truckload of wood transported must be accompanied by a trip ticket containing the following information for that load of wood:

A. The date the wood is hauled;

B. The name of the landowner;

C. The town of origin;

D. For wood harvested in the State, the number on the harvest notification form filed with the Bureau of Forestry in accordance with Title 12, section 8883;

E. The name of the contractor;

F. The name or names of the cutting crew;

G. The name of the hauler;

H. The destination of the wood, both town and customer; and

I. The signature of the truck driver.

2. Trip ticket part of record. Upon delivery of a truckload of wood requiring a trip ticket, the truck driver shall provide a copy of the trip ticket to the wood scaler or other person accepting delivery. When a tally sheet or other record of measurement is required under section 2364-A, subsection 2, the harvest notification number and other information contained on the trip ticket must be recorded on the record of measure or a copy of the trip ticket must be attached to the record of measure.

3. Wood transported after measurement. When wood is transported after its first measurement in accordance with section 2364-A, the information specified in subsection 1, paragraphs B, D and F is not required on the trip ticket and the harvest notification number is not required on subsequent records of measurement.

4. Consumer transactions of firewood excluded. The requirements of this section do not apply to the transportation of firewood in consumer transactions on the retail market as defined in rules adopted pursuant to section 2367.

5. Enforcement; violations. Upon request, a truck driver must present the trip ticket to any employee of the State charged with enforcing the provisions of this subchapter. Upon request, a wood scaler shall present the record of measurement including a copy of the trip ticket or information contained on the trip ticket to any employee of the State charged with enforcing the provisions of this subchapter. A person who fails to comply with the provisions of this section or misrepresents information on a trip ticket is subject to the penalties provided in section 2368.

Sec. 3. 12 MRSA §8882, as enacted by PL 1989, c. 555, §12 and affected by c. 600, Pt. B, §11, is amended to read:



STATE OF MAINE
MAINE DEPARTMENT OF AGRICULTURE, FOOD & RURAL RESOURCES
DIVISION OF QUALITY ASSURANCE AND REGULATIONS
28 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0028

John Elias Baldacci
GOVERNOR

Robert W Spear
COMMISSIONER

David E Gagnon
DIRECTOR

TO: Persons Involved in the Harvesting of Wood in the State of Maine

**FROM: David E. Gagnon, Director
Quality Assurance & Regulations**

SUBJECT: Tally Sheets

Legislative Document #738 passed by the Maine Legislature in 1989 requires the landowners name to be placed on Wood Measurement Tally Sheets. Our records show poor compliance with this law since its inception.

The Wood Measurement Rules require that a completed tally sheet be furnished in all wood transactions where these tallies will be used as the basis for payment.

LD 2320, passed in 1990, requires that the person buying stumpage from a land owner provide the land owner with a stumpage sheet or copy of the measurement tally sheet for every load sold. The sheet must include the name of the land owner, the name of the contractor, the name of the hauler, the destination of the wood, the date and a description of the wood.

Tally sheets issued without the land owners name or with the truck driver or contractor substituted for the land owner are not acceptable and violate the Wood Measurement Law.

We intend to vigorously pursue violations and bring all legal action necessary to correct any problems.

Please review your operations for compliance with these components of the Wood Measurement Law.

We will be glad to assist you in any way.

TRIP TICKET

Date Wood Hauled: _____

Notification Number: _____

Scale Slip Number: _____

Landowner: _____

Town(s) where cut: _____

Name of contractor: _____

Cutting crew names: _____

Name of hauler: _____

Destination of wood _____

Town: _____

Customer Name: _____

Certification: I certify that the information in this ticket is true, correct and complete:

Trucker's Signature

Printed Name

*Required in accordance with 10 MRSA § 2634-B
(Public Law Chapter 648, 1998)

MFS Draft 5-14-98

TRIP TICKET

Date Wood Hauled: _____

Notification Number: _____

Scale Slip Number: _____

Landowner: _____

Town(s) where cut: _____

Name of contractor: _____

Cutting crew names: _____

Name of hauler: _____

Destination of wood _____

Town: _____

Customer Name: _____

Certification: I certify that the information in this ticket is true, correct and complete:

Trucker's Signature

Printed Name

*Required in accordance with 10 MRSA § 2634-B
(Public Law Chapter 648, 1998)

MFS Draft 5-14-98

LOG SCALE: SAMPLE TALLY SHEET

Date: _____ Trip Ticket # _____
Landowner: _____ Contractor/ Seller: _____
Trucker: _____ Crew ID: _____
Harvest Notification # _____ Scale Rule Used: _____
Town of Origin: _____

Log Length 8'			Log Length 10'			Log Length 12'			Log Length 14'			Log Length 16'		
gross	net	code	gross	net	code	gross	net	code	gross	net	code	gross	net	code

Defect Code: S = Sweep; C = Crook; R = Rot; K = Knots; etc..

Number of culls: _____ Reason for Culling: _____

Total Gross Scale _____ Total Net Scale: _____

Scalers Signature and License Number

WOOD MEASUREMENT RULES

MAINE DEPARTMENT OF AGRICULTURE
FOOD AND RURAL RESOURCES
DIVISION OF QUALITY ASSURANCE & REGULATIONS
#28 STATE HOUSE STATION
AUGUSTA, MAINE 04333
TELEPHONE (207)287-3841

This booklet contains the Wood Measurement Rules and their appendices. It also includes the Basis Statement which sets out the factual and policy basis for the rules and responds to comments on the rules received in the rulemaking process.

Note: A french language version of these Wood Measurement Rules is available upon request.

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01 DEPARTMENT OF AGRICULTURE, FOOD, AND RURAL RESOURCES
001 DIVISION OF REGULATIONS

Chapter 380 GENERAL PROVISIONS

SUMMARY: This chapter of the Wood Measurement Rules covers the intent, applicability, and severability of the rules; sets out statutory provisions dealing with penalties for violations; provides for an informal advisory committee; and provides definitions of terms used in the rules.

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SECTION 1. STATEMENT OF INTENT

A. Accuracy and verifiability. It is the intent of the State Sealer that all methods of determining the amount of wood in wood transactions shall provide an accurate and verifiable count of the volume, quantity, dimension, or weight measured.

B. Suitability of measurements. It is the intent of the State Sealer that wood be measured by a method which is suitable to the wood production form and type of wood transaction involved.

C. Unfair or deceptive dealings. It is the intent of the State Sealer that unfair or deceptive dealings in the measurement of wood be prevented by requiring measurement tally sheets in sufficient detail.

D. Uniform measurement standards and procedures. It is the intent of the State Sealer to establish uniform measurement standards and procedures which provide for accurate and verifiable measurements that can be efficiently and conveniently applied in wood transactions.

E. Licensing of scalers. It is the intent of the State Sealer to establish a licensing program for persons who measure wood to promote independent accountability.

F. Meaningful enforcement. It is the intent of the State Sealer to establish an enforcement program that will deter violations of these Wood Measurement Rules and that will provide for the expeditious investigation of complaints.

G. Construction. It is the intent of the State Sealer that these Wood Measurement Rules, which the State Sealer is required to promulgate and adopt under 10 M.R.S.A. §2367, be construed in conjunction with and in light of the Weights and Measures Law (10 M.R.S.A. §2301 et seq.) and in particular with the requirements of the Wood Measurement Law (10 M.R.S.A. §2361-A et seq.). These rules are not to be construed as modifying any rights or obligations granted or imposed by the Uniform Commercial Code (11 M.R.S.A. §1-101 et seq.) or the labor laws of this State (26 M.R.S.A., §1 et seq.)

SECTION 2. APPLICABILITY

A. Consumer transactions excluded. These Wood Measurement Rules govern all wood transactions in which measurement forms the basis for payment, except that they do not apply to the measurement of firewood in consumer transactions on the retail market.

B. Types of wood transactions. For measurement purposes, the State Sealer recognizes two distinct types of wood transactions: payment for services and a sale involving transfer of title to the wood. These two types of wood transactions are treated differently in the Wood Measurement Law and these Wood Measurement Rules.

1. Nature of transaction. The determination of which type of wood transaction is involved is based on whether there in fact occurs the transfer of title to the wood. It is the nature of the transaction that is considered rather than the terminology used by the parties. Ordinarily, the determination can be made by asking the question: Was payment made for services or for wood?

2. Payment for services.

(a) Payment for services includes payment for services in harvesting, for services in hauling, and for services in both harvesting and hauling.

(b) The parties to a payment for services transaction are the person providing services and the person requiring services.

NOTE: Woodcutters, truckers, and loader operators who are paid piece rate wages and equipment rental are all examples of persons providing services. Jobbers or logging service contractors who are paid to harvest wood and deliver it roadside or to a designated mill or other location are also persons providing services, and are not sellers.

3. Sale of wood.

(a) The sale of wood involves the exchange of payment for title to the wood.

(b) The parties to a sale transaction are the seller and the buyer.

NOTE: For example, a landowner, contractor, or broker who has marketable title to wood in any form is a seller when the wood is tendered for sale in exchange for payment. A processing mill that purchases wood in any production form is a buyer when payment is tendered in exchange for title to wood.

(c) The purchase of stumpage or stumpage rights is a sale transaction provided that the purchaser acquires title to the wood (that is, the purchaser is free to market the wood as he chooses). If the seller of the stumpage or stumpage rights controls the marketing of the wood (for example, by directing where or how it is to be marketed) the stumpage or stumpage rights transaction is not a sale transaction involving transfer of title but is rather a payment for services transaction.

NOTE: See Chapter 381, Section 6 for the requirements where the purchase of stumpage is combined with payment for services in one transaction.

4. Chain of wood transactions. The State Sealer shall apply these Wood Measurement Rules to each transaction in a series of wood transactions, in light of its nature and the following understandings:

(a) Any wood may be dealt with in a series of wood transactions;

(b) The transactions in the series may involve payment for services, sale, or both;

(c) Any person may be involved in more than one of the transactions in the series and the nature of his involvement may be different in different transactions;

(d) Either the wood in question may be measured only once and those measurements used to calculate payment in several transactions, or it may be separately measured to calculate payment for separate transactions in the series.

SECTION 3. TERRITORIAL APPLICATION

A. Wood measurement transactions within the state. The measurement of wood within the State of Maine is subject to these Wood Measurement Rules regardless of where the wood was harvested or to what destination the wood will be delivered after measurement.

B. Wood measured outside the State. When wood harvested within the State of Maine is taken out of the state before measuring these Wood Measurement Rules apply as follows:

1. Payment for services.

(a) These Wood Measurement Rules govern the measurement of all wood in all transactions in which payment is made for services harvesting or hauling wood that is harvested within the state of Maine.

(b) The Wood Measurement Law and these Wood Measurement Rules allow persons requiring services the privilege of measuring outside of the state wood that is harvested in the state of Maine. Under certain conditions this privilege may be suspended.

NOTE: The conditions under which this privilege may be suspended are provided in the Wood Measurement Law, 10 M.R.S.A. §2364-A(3) and in Chapter 381, section 7 of these Rules.

2. Sale of wood. These Wood Measurement Rules govern the measurement of all wood in sales transactions involving the transfer of title to wood that is harvested within the state of Maine, except under the following conditions:

(a) The sale transaction bears a reasonable relation to another state or nation; and

(b) The parties agree in writing that the wood measurement laws of the other state or nation shall govern their rights and duties.

SECTION 4. VIOLATIONS AND PENALTIES

A. Penalties and private actions. The Wood Measurement Law, in 10 M.R.S.A. §2368, provides:

STATUTORY PROVISION

§2368. Violations; penalties

1. Civil violations. Violations of [the Wood Measurement Law] or any rule promulgated pursuant to [the Wood Measurement Law] shall be a civil violation punishable by a civil penalty not to exceed \$1,000 for a first offense and \$2,000 for each subsequent offense. These civil penalties may be recovered by the State Sealer on behalf of the State in a civil action.

2. Private action. Any person who violates [the Wood Measurement Law] or any rule promulgated pursuant to [the Wood Measurement Law] shall be liable in a civil action to any person aggrieved by the violation, pursuant to the remedies set forth in Title 26, section 626-A. The civil action for damages may be brought by either the aggrieved party or, at the request of the State Sealer, by the Attorney General.

B. Denial, revocation, and suspension of license. In addition to the above provisions, licensed scalers and licensed apprentice scalers are subject to 10 M.R.S.A. §2365-A(3) which provides:

STATUTORY PROVISION

License; denial; revocation; suspension. The State Sealer may take enforcement action against the licensee or may initiate proceedings in the Administrative Court, pursuant to Title 5, Chapter 375, to revoke or suspend a license for any of the following reasons:

- A. The licensee has violated any condition of the license;
- B. The licensee has obtained a license by misrepresentation or failure to disclose fully all relevant facts; and
- C. The licensee has violated any provision of the laws within this chapter.

SECTION 5. SEVERABILITY

If any provision of these Wood Measurement Rules is invalid, or if the application of any provision of the rules to any person or circumstance is invalid, the invalidity shall not affect other provisions or applications which can be given effect without the invalid provision or application.

SECTION 6. INFORMAL ADVISORY COMMITTEE

The State Sealer may appoint and maintain an informal advisory committee composed of persons representing a cross section of interests governed by these Wood Measurement Rules, such as independent and service contractors, woods workers, land managers, land owners, and owners and operators of mills of various types, as well as representatives of interested government agencies.

SECTION 7. DEFINITIONS

Unless the context clearly indicates otherwise, the following terms shall have the following meanings.

A. Agent. "Agent" means a person that acts or is empowered to act for another person.

B. Agreement of the parties. "Agreement of the parties" means the mutual agreement of the parties or their authorized representatives and is distinguished from a unilateral condition imposed by any party to the agreement. A party is a company or individual buying wood, a contractor, an individual providing services in or incidental to harvesting, hauling, or chipping wood or an authorized employee representative negotiating on behalf of

the individual providing services. The term "party" also includes a landowner, a broker, or a person of any other designation who enters into an agreement involving wood measurement. The term "agreement of the parties" includes the term "agree" in any of its grammatical forms.

C. Apprentice scaler. "Apprentice scaler" means a person licensed to measure wood under the direct supervision of a licensed wood scaler.

D. Authorized system of measurement. "Authorized system of measurement" means a system of measurement of wood provided for in the Wood Measurement Law or in these Wood Measurement Rules, applied to a particular production form as set forth in Chapter 382.

E. Bucking. "Bucking" means sawing stems into specified lengths, as into logs or bolts of a specified length.

F. Butt back. "Butt back" means to remove a portion of a stem from its butt end.

G. Butt diameter. "Butt diameter" means the diameter of the severed stem butt, measured outside the bark, the short way through the center, disregarding crevices and cracks.

H. Butt measure. "Butt measure" means the lineal measure of the butt end of tree length wood, without subsequent conversion to volume by any means. This measurement may be represented in either the number of stems in each butt diameter class by species, or alternatively in the cumulative sum of the butt diameters by species, expressed in inches, without regard to the butt diameter class.

I. Butt scale. "Butt scale" means the volume measure of wood based solely on measurement of the butt end of individual trees and converted to volume by any means.

J. Buyer. "Buyer" means a person who purchases wood and to whom title to wood is transferred in exchange for payment.

K. Chipcord. "Chipcord" means a unit of measure equal to the volume of sawdust, chips, bark, or shavings that are contained in 128 cubic feet at the time of the transaction. Chipcord is used synonymously with "standard cord of chips."

L. Complainant. "Complainant" means a person who is aggrieved by an alleged violation of the Wood Measurement Law or these Wood Measurement Rules and who files a complaint with the State Sealer or who gives notice to the person with possession or control of the wood to which the alleged violation relates that a complaint will be filed. A complainant may be an authorized employee representative who files a complaint on behalf of such a person.

M. Culled Wood.

1. In payment for services in harvesting, "culled wood" means any stem that was not designated to be harvested and yarded, or was not prepared as directed in the cutting specifications.

2. In payment for services in hauling, "culled wood" means any stem that was designated, in the manner described in the hauling specifications, as not to be hauled.

3. In the sale of wood, "culled wood" means any stem that does not conform to the wood quality specifications.

N. Cunit. "Cunit" means a unit of measure equal to 100 solid cubic feet of either wood including bark or wood excluding bark.

O. Cutting specifications. "Cutting specifications" mean the written directions for the preparation of trees that were designated to be harvested and yarded. The requirements for cutting specifications are set forth in Chapter 381, section 4.

P. Deduction from gross scale. See Discounting.

Q. Discounting. "Discounting" means taking a deduction from gross scale on account of a merchantability factor or factors, including quality, grading, or utilization factors such as scaling defects. The amount of the discount, also referred to as the deduction from gross scale is the difference between gross scale and net scale.

R. Disputed wood. "Disputed wood" means specifically identified wood that is the subject of a complaint, under Chapter 384, based on an allegation of inaccurate measurement of the identified wood.

S. Face cord. "Face cord" means a unit of measure of wood, air, and bark, measuring 4 feet high and 8 feet long, or its equivalent, containing 32 square feet of surface area. A face cord is used only for stacked wood where the length of the bolts has been designated or agreed upon in advance of measuring the wood. The bolts may be up to 9 feet in length.

T. Green wood. "Green wood" means trees or parts of trees that have been freshly felled.

U. "Grosenbaugh" methodology. The "Grosenbaugh" methodology means the method of determining scaling deductions of tree and log length stems, adapted from Grosenbaugh, L.R., Shortcuts for Cruisers and Scalers, U.S. Forest Service, Southern Forest Experimental Station, Occasional Paper No. 126, March 1952. An application of the "Grosenbaugh" methodology is available upon request from the State Sealer.

V. Gross scale. "Gross scale" means the full measurement of wood in any production form, measured without regard to any scaling defects, according to the measurement procedure for gross scale provided in Chapter 382, section 6, for each measurement system.

W. Hauling specifications. "Hauling specifications" means the written designation of wood in any production form that is to be hauled. The requirements for hauling specifications are set forth in Chapter 381, section 4.

X. Licensee. "Licensee" means an individual licensed as a scaler or apprentice scaler in accordance with Chapter 384.

Y. Merchantability factor. A "Merchantability factor" means any characteristic of wood that affects its quality, grade, or utilization. "Merchantability factor" includes all scaling defects, such as sweep, crook, seams, and rot.

Z. Measurement. "Measurement" means the determination by whatever system of measurement of the quantity, dimensions, volume or weight of wood with or without regard to quality or merchantability factors.

A-1. Measurement tally sheet. "Measurement tally sheet" means a written or printed form or combination of forms which provides a readily understandable record of the measurement of the wood to which it relates contains the information required by Chapter 383 of these Wood Measurement Rules, and is prepared by the person who measures the wood, or the assisting tally person.

B-1. National Forest Log Scaling Handbook. "National

Forest Log Scaling Handbook" means the log scaling handbook published by the United States Department of Agriculture, as amended in 1973.

NOTE: A copy of the "National Forest Log Scaling Handbook" may be obtained from the United States Department of Agriculture, at the address provided on the cover page to these Rules.

C-1. Net scale. "Net scale" means the quantity of wood after reducing the gross scale measurements by the deductions taken for scaling defects or other merchantability factors, as provided for in Chapter 382, section 6 under the heading Net Scale - Discounting for those measurement systems in which such deductions are allowed.

D-1. Oven-dried wood. "Oven-dried wood" means wood that has been oven-dried to remove its moisture content according to standards as adopted by the American Society of Testing and Materials.

E-1. Payment for services. "Payment for services" means payment made for services in or incidental to harvesting, hauling or chipping wood, and does not involve transfer of title to the wood.

F-1. Person. "Person" means an individual or an organization, including but not limited to, a partnership, a corporation, a company, a society, a governmental agency, and an association, or an agent of a person.

G-1. Person providing services. "Person providing services" means a person who performs services in or incidental to harvesting, hauling, or chipping wood.

H-1. Person requiring services. "Person requiring services" means a person who calls for or requests services in or incidental to harvesting, hauling, or chipping wood.

I-1. Piece. "Piece" of wood means a portion of a harvested tree stem.

J-1. Production form. "Production form" means the form in which harvested wood is tendered for measurement.

K-1. Properly prepared wood. "Properly prepared wood" means wood that was required to be harvested and yarded, and was prepared as directed, according to written cutting specifications.

L-1. "Quality factor". See "Merchantability factor".

M-1. Quantity factor. "Quantity factor" means a factor for which reductions are made in the process of determining full measure, or "gross scale", and is distinguished from a merchantability, or quality, factor. A reduction is made for a quantity factor where necessary to determine the accurate full measurement of the wood. Under no circumstances shall scaling defects, grading considerations, or any other quality or merchantability factor be treated as a quantity factor. The measurement procedures set forth in Chapter 382, Section 6 incorporate the necessary measurement adjustments to account for the relevant quantity factors.

NOTE: An example of a quantity reduction is in stick cord scale, where a reduction in the measurements is made for loose piling which results in excessive voids.

N-1. Sale of wood. "Sale of wood" means a transaction involving transfer of title to wood.

N-2. Sample scaling. "Sample scaling" means the method of measurement as set forth in Chapter 382, Section 6 of these Wood Measurement Rules, where wood is count or weight scaled and a representative sample of the wood is then measured using other authorized systems of measurement. The final scale is the measurement of the sample expanded by the total count or weight of the wood being sample scaled.

O-1. Sawlog. "Sawlog" means a log length stem that is 8 feet long or longer, where the lengths over 8 feet correspond to standard lumber lengths.

P-1. Scaler. "Scaler" means a person who measures wood by any system of measurement.

Q-1. Scaling defect. "Scaling defect" means an unwanted quality characteristic of a harvested tree, such as rot, abnormal shapes, holes, and, where provided for in Chapter 382, section 6, may include bark. See "merchantability factor".

R-1. Seller. "Seller" means a person from whom wood is purchased and who transfers title to wood in exchange for payment.

S-1. Services in harvesting wood. "Services in harvesting wood" means any activity or process in or incidental to the harvesting of wood, such as felling, limbing, topping, skidding, chipping, forwarding, sorting, piling, bucking, or bunching. Services in harvesting wood are distinguished from services in hauling wood.

T-1. Services in hauling wood. "Services in hauling wood" means the transportation of wood by truck, railroad, or any other means, but does not include the yarding of wood for short distances incidental to harvesting. Services in hauling wood also includes the loading and handling of wood incidental to hauling. Services in hauling wood are distinguished from services in harvesting wood.

U-1. Standard cord. A "standard cord" means the cubic foot measurement of 4 foot long wood, ranked and well stowed, and stacked 4 feet wide, 4 feet high and 8 feet long, or its equivalent, which stack measure contains 128 cubic feet of wood, bark and air space. A "standard cord" when used in connection with sawdust chips, bark or shavings means the volume contained in 128 cubic feet at the time of sale.

V-1. State Sealer. "State Sealer" means the State Sealer of Weights and Measures or his designated agent.

W-1. Stem. "Stem" means the felled or fallen bole of a tree and may, in the case of unlimbed wood, include the limbs of the tree. "Stem" may refer to the entire stem or to segments of the stem.

X-1. Stem unit. "Stem unit" means a unit of measure equal to 100 lineal inches. "Stem unit" is the standard unit of measure where the cumulative sum method of butt measure scaling is used.

Y-1. Squared-defect method. "Squared-defect method" is a method of deduction from gross scale which is often used for measuring interior scaling defects in sawlogs. Using this method, defects showing in one or both ends are treated as sawn out in squares or rectangles.

Z-1. Transfer of title. "Transfer of title" means the complete transfer of ownership rights in the wood exchanged in a sale transaction.

A-2. Trim allowance. "Trim allowance" means the length in excess of standard lumber length intervals that may be specified where log scale is used.

B-2. Wood. "Wood" means the severed but unprocessed fibrous derivative of trees, without regard for quality or grade and also means the chipped fibrous derivative of trees.

C-2. Wood Measurement Rules. "Wood Measurement Rules" means Chapters 380 through 385 of these rules.

D-2. Wood quality specifications. "Wood quality specifications" means the written description of the wood that will be purchased or sold in a sale. The description may be by species, dimensions, production form, quality or grading standards, or other merchantability factors. The specifications must include any and all merchantability factors for which deductions will be made, or which determine the grade classification.

E-2. Wood transactions. "Wood transactions" means the "sale of wood" or "payment for services" as those terms are defined in this section.

F-2. Yarding. "Yarding" means the removal of a severed or fallen stem from the growing site by skidding or otherwise.

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01 DEPARTMENT OF AGRICULTURE, FOOD, AND RURAL RESOURCES
001 DIVISION OF REGULATIONS

CHAPTER 381 GENERAL REQUIREMENTS FOR WOOD TRANSACTIONS

SUMMARY: This chapter of the Wood Measurement Rules covers the general requirements relating to the measurement of wood according to the type of wood transaction involved, and includes suspension of the privilege to measure wood out of state where payment for services is made.

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SECTION 1: GENERAL PROHIBITIONS

A. Underscaling or Overscaling. In all wood transactions, no person who measures wood shall represent a weight, volume, quantity, or dimension of wood which is less than or more than the weight, volume, quantity, or dimension of wood to be measured where the measurements made by that person are required to determine payment.

B. Unauthorized Systems of Measurement. In all wood transactions, no person who measures wood may use a system of measurement that is not authorized in Chapter 382 of these Wood Measurement Rules, except that the State Sealer

may give temporary approval to a new system of measurement that has been proposed pursuant to 5 M.R.S.A. § 8055 (Petition for Rulemaking). A temporary approval of a new system of measurement shall be based on a finding that

1. the parties to the transaction have agreed to use the proposed system; and
2. the proposed system appears reasonable and appropriate for its intended use.

C. Improper Use of Authorized Measurement Systems. In all wood transactions, no person who measures wood shall use any authorized measurement system except in accordance with Chapter 382.

SECTION 2: GENERAL REQUIREMENTS WHERE PAYMENT IS MADE FOR SERVICES IN HARVESTING WOOD

A. Full Measure Required In Payment for Services In Harvesting. All wood which is tendered for measurement shall be measured in full without regard to any scaling defects or other merchantability factors, and any deduction from gross scale is prohibited.

1. The measurement procedure for gross scale are set forth in Chapter 382, section 6. These measurement procedures provide for all reductions for quantity factors necessary for accurate measurement (e.g. excessive voids in a pile of wood).
2. No reductions that are not provided for in these measurement procedures may be made by being described as a deduction for a quantity factor or by being described in any other way.

B. Limitations on Full Measurement Requirements.

1. Wood not designated to be harvested. Stems or pieces that were not designated to be harvested may be excluded from measurement provided the wood in question is handled as culled wood at the harvesting site, according to subsection D.
2. Improperly prepared wood. Stems or pieces that were not prepared as directed may be excluded from measurement provided the wood in question is handled as culled wood at the harvesting site according to subsection D, and the person providing the services, after review of the wood in question, has not corrected the preparation after having been afforded a reasonable opportunity in which to do so.

NOTE: The definitions of "properly prepared" wood is in Chapter 380, section 7. The determination of whether a piece or stem was properly prepared is based on whether it was prepared as directed, for example whether it was adequately butted back or cut to the length designated in the cutting specifications. Under no circumstances may scaling defects, quality or grade considerations, or any other merchantability factors be treated as improper preparation.

C. Presumption. All wood removed from the harvesting site is presumed to have been designated to be harvested and to have been properly prepared except when the stems or pieces in questions were handled as culled wood at the harvesting site, according to subsection D. Any wood removed from the site without being handled as culled wood at the harvesting site according to subsection D, shall be measured in full for purposes of payment for services.

D. Handling of Culled Wood.

1. Determination of culled wood. Any stem or piece that is tendered for measurement, but was not designated for harvesting or was improperly prepared may be culled provided the piece in question is culled at the harvesting site.

2. Required handling of culled wood. The person requiring the services shall handle culled wood as follows:

(a) Marking. The person requiring the services shall mark the stem or piece in an easily visible and distinct manner. The culled wood shall be marked at the harvesting area and in advance of or at the time of measurement.

(b) Reasonable opportunity for review and correction. The person requiring the services shall set the culled wood aside at the harvesting site so as to be accessible for review and correction, and after directing the attention of the person providing the service to the culled wood, shall afford the person providing the services a reasonable opportunity to review the wood and to correct the preparation. In the case of culled wood the preparation of which cannot be corrected, the same opportunity for review shall be provided.

3. Tally sheet requirements for culled wood. The

person requiring the services shall indicate on the measurement tally sheet:

- (a) the reason for culling based on the written cutting specifications,
- (b) the number of culled pieces, and
- (c) if the culled pieces are removed from the harvesting site, the total measurement of the culled pieces.

4. Dispute on culled wood. If the person providing the services believes the culled wood had been designated to be harvested and was properly prepared, he may file a complaint with the State Sealer and may give the person with possession or control of the wood notice to hold the wood because he will file or has filed a complaint. Chapter 384 of the Wood Measurement Rules governs such complaints and the notice to hold wood.

NOTE: The culling of wood at the harvesting site does not require a licensed scaler, though it may be done by a scaler.

E. Cutting Specifications.

1. Cutting specifications required. Written cutting specifications shall be furnished to persons providing services in harvesting, in accordance with this chapter, section 4.

2. Measurement required. All wood that meets the cutting specifications shall be measured in full, regardless of whether the wood is hauled or otherwise processed.

3. Failure to provide. When cutting specifications were not provided as set forth in this chapter, section 4, all wood that was harvested and tendered for measurement shall be measured in full.

4. Omission of some wood designated to be harvested. When cutting specifications were provided but do not include some wood that was designated to be harvested, all of such wood that was designated in some other manner to be harvested shall be measured in full.

5. Inclusion of provisions for taking deductions. The inclusion of any provision in the cutting specifications for taking deductions from gross scale is prohibited and shall be disregarded for purposes of payment.

F. Prompt Measurement and Furnishing of Measurement Tally Sheet Required. Prompt measurement and furnishing of the measurement tally sheets are required for payment for services in harvesting and shall be provided by the person requiring the service in accordance with Chapter 383.

SECTION 3: GENERAL REQUIREMENTS WHERE PAYMENT IS MADE FOR SERVICES IN HAULING WOOD OR FOR SERVICES IN BOTH HARVESTING AND HAULING WOOD

A. Full Measure Required.

1. Full measure in hauling. All wood that was designated to be hauled and which was hauled, shall be measured in full without regard to any scaling defects or other merchantability factors. Payment for services in hauling shall be based on the measurement procedure for gross scale set forth in Chapter 382, section 6 for each measurement system.

2. Full measure in both harvesting and hauling. All wood that was designated to be harvested and hauled and which was harvested and hauled, shall be measured in full without regard to any scaling defects or other merchantability factors. Payment for services in harvesting and hauling shall be based on the measurement procedure for gross scale set forth in Chapter 382, section 6 for each measurement system.

B. Limitation On Full Measure Requirement. Wood that was designated not to be hauled but was hauled may be subtracted from the total measure for purposes of payment for services to the person providing services in hauling, when

1. the person providing the services was responsible for loading and he loaded wood which has been clearly marked as culled wood not to be hauled, or when the person providing the services was responsible for culling and marking the harvested wood that did not meet the written harvesting or hauling specifications and he loaded and hauled wood that did not meet the specifications, and

2. the person requiring the services affords the person providing the services a reasonable opportunity to review the wood in question.

C. Culled Wood.

1. Method of handling culled wood. To subtract the culled wood from the total measure, the marked pieces may be measured separately or the person requiring the services may use an alternative method, provided the method of calculation is reasonable and furnished to the person providing services in writing in advance of the performance of the services.

2. Dispute on culled wood. If the person providing the services believes the culled wood had been designated to be hauled or harvested and hauled, he may file a complaint with the State Sealer and may give the person with possession or control of the wood notice to hold the wood because he will file or has filed a complaint. Chapter 384 of the Wood Measurement Rules governs such complaints and the notice to hold wood.

D. Written Specifications For Hauling or Both Harvesting and Hauling.

1. Hauling. The person requiring services in hauling shall furnish the person providing the services with written hauling specifications where required by this chapter, section 4(B).

2. Harvesting and hauling. The person requiring services in both harvesting and hauling shall furnish the person providing the services with written cutting and hauling specifications in accordance with this chapter, section 4(A) and (B).

3. Absence of written specifications. In the absence of written specifications, all wood that was hauled shall be presumed to have been designated for hauling, or for both harvesting and hauling.

4. Omission of some wood designated to be hauled. When hauling specifications were provided but do not include some wood that was designated in some other manner to be hauled, all of such wood that was hauled shall be measured in full.

5. Inclusion of provisions for taking deductions. The inclusion of any provision for taking deductions in hauling specifications under any circumstances other than permitted in this section under paragraph B are prohibited and shall be disregarded for purposes of payment.

6. Wood harvested but not hauled. In the event that a person requiring services in both harvesting and hauling designated in the written specifications wood to be harvested but not hauled, the person requiring the services shall measure that wood according to the requirements for payment for services in harvesting, set forth in section 2 of this chapter.

E. Prompt Furnishing of Measurement Tally Sheet Required. Prompt furnishing of the measurement tally sheet is required for payment for services in hauling and in both harvesting and hauling and shall be furnished by the person requiring the service in accordance with Chapter 383.

SECTION 4: REQUIREMENTS FOR WRITTEN CUTTING AND HAULING SPECIFICATIONS WHERE PAYMENT IS MADE FOR SERVICES

A. Cutting Specifications. Any person requiring services in harvesting wood shall furnish the person providing the services with written cutting specifications. The cutting specifications shall:

1. Identify the trees that are to be harvested and yarded, such as by:

- (a) Species;
- (b) Minimum butt diameter;
- (c) Reference to a marked area in the case of clear cutting, or cutting a right of way; or
- (d) Reference to marked trees in the case of selective cutting.

2. Provide the directions for the preparation of the wood. Preparation of the wood may be by one or more of the following operations:

- (a) Topping;
- (b) Limbing, including the removal of forked stems;
- (c) Butting back;
- (d) Bucking; and
- (e) Piling.

3. Describe how culled wood will be marked.

B. Hauling Specifications. Whenever a person providing services in hauling wood is responsible for deciding which wood is to be hauled, the person requiring the services shall furnish the person providing the services with written hauling specifications which shall:

1. Designate the wood to be hauled, by species, production form, quality standards, type of marking, or otherwise;

2. Describe how culled wood that is not to be hauled will be marked.

3. Specify the hauling destination.

C. Form of Cutting and Hauling Specifications. Cutting and hauling specifications shall be:

1. Be in written or printed form;

2. Identify the person requiring the services; and

3. Be furnished in advance of performance of the services.

D. Request By State Sealer. Upon request, the person requiring the services shall provide the State Sealer with a copy of the written specifications.

SECTION 5: GENERAL REQUIREMENTS IN THE SALE OF WOOD

A. Wood Quality Specifications.

1. Requirements for wood quality specifications. In a sale transaction, written wood quality specifications are required. The wood quality specifications shall:

(a) Describe the wood which the buyer will purchase, including acceptable species, acceptable dimensions, and quality or grading standards. Any scaling defect or other merchantability factor for which a deductions may be taken shall be included in the wood quality specifications.

(b) Describe how culled wood will be marked.

2. Sales contract terms control. In the sale of wood, all wood that conforms to wood quality specifications which are included in a sales contract shall be measured by the terms of the sales contract and in accordance with the requirements of Chapter 382. Deductions from gross scale measurements are prohibited except for scaling defects or other merchantability factors where designated in the wood quality specifications.

3. Buyer's wood quality specifications. In the absence of a sales contract, the measurement of wood tendered for sale shall be based on the buyer's wood quality specifications, provided the buyer furnishes the seller with the wood quality specifications in advance of either measuring or taking possession of the wood, whichever occurs first. To "furnish" the wood quality specifications includes handing a copy of them to the seller or his delivery agent at the time of his arrival at the delivery location, but does not include instructing the seller or delivery agent that the wood quality specifications are available or posted in some location.

4. Absence of buyer's wood quality specifications. In the absence of wood quality specifications contained in a sales contract or furnished in advance by the buyer as required in paragraph 3, or when the wood quality specifications do not include scaling or other merchantability defects for which deductions will be made, all wood shall be measured in full using the measurement procedures for gross scale for the measurement system utilized, as provided in Chapter 382, section 6, and no deductions from gross scale shall be taken.

5. Request by State Sealer. Upon request, the buyer or seller shall provide the State Sealer with a copy of the wood quality specifications.

B. Handling of Culled Wood In A Sales Transaction. The parties may provide for the handling of culled wood in the sales contract or the wood quality specifications. In the absence of terms in the wood quality specifications providing for how the parties will deal with culled wood:

1. The buyer shall notify the seller that he is holding culled wood (for example, notification may be a notation on the measurement tally sheet of the number of culled pieces).
2. The buyer shall hold the culled wood for 10 days after giving the notice;
3. The seller may deal with the culled wood by taking it back or by reaching another agreement with the buyer with respect to it; and
4. If, after the expiration of 10 days, the seller has not dealt with the culled wood, the buyer may deal with it in any manner without measuring it for purposes of payment.

C. Measurement Tally Sheet Requirements. In the sale of wood, measurement tally sheets shall be provided in accordance with Chapter 383.

SECTION 6: GENERAL REQUIREMENTS FOR A SALE OF STUMPAGE AND PAYMENT FOR SERVICES IN A COMBINED TRANSACTION

Combined Transaction. Regardless of when title to the wood passes, whenever a buyer purchases stumpage from a contractor, landowner or other party and, as a part of the same transaction, that same contractor, landowner, or other party (the seller) provides the services in harvesting the wood, or provides the services in both harvesting and hauling the wood, the following are required:

- A. Written Specifications. The stumpage buyer shall furnish that contractor, landowner or other party with written cutting, or cutting and hauling, specifications in advance of performance of the services, as provided in section 4; and
- B. Measurement in Full. The wood shall be measured in full using the measurement procedure for gross scale for the measurement system utilized, as provided in Chapter 382, section 6, and no deductions from gross scale may be taken except as permitted in this chapter, sections 2 and 3.

NOTE: Ordinarily the purchase of stumpage is not combined with payment for services and is simply a sale transaction. See Chapter 380 section 2(B) for further clarification of the purchase of stumpage or stumpage rights.

**SECTION 7: SUSPENSION OF PRIVILEGE TO MEASURE WOOD OUT OF STATE
WHERE PAYMENT IS MADE FOR SERVICES**

A. In-state Measurement Required. Under the following circumstances, wood harvested in the State of Maine shall be measured before being taken outside the state:

1. Payment is made for services in harvesting or hauling, or in both harvesting and hauling, and is based on measurement of the wood; and
2. The State Sealer, after investigations, has reason to believe that:

(a) There has been inaccurate measurement of wood; or

(b) The measurement of wood was inaccurately or incompletely represented on the measurement tally sheet; or

(c) A measurement tally sheet was not promptly furnished, as required in Section 1 or 2, depending on the services provided; and

(d) The occurrence of any of the alleged violations described in (a) through (c) above was not an inadvertent error.

3. For purposes of paragraph 2, the State Sealer has "reason to believe" that one of the alleged violations described in paragraph 2, subparagraphs (a) through (c) has occurred, when, following an investigation in which the person requiring services has an opportunity to present evidence to the contrary, the State Sealer believes that the violation occurred and finds that the evidence to the contrary presented by the person requiring services is insufficient to rebut that belief.

B. Order Suspending Privilege to Measure Out Of State

1. Where the State Sealer has reason to believe that a violation has occurred and was not the result of inadvertent error, the person requiring the services, for a period of one year, is not allowed to remove wood from the State before it is measured. The State Sealer shall issue an order to that effect to the person requiring services which shall be sent by certified mail and shall state:

(a) That the order becomes effective 30 days from the date it is received;

(b) That the order requires measurement before wood leaves the State only where payment is made for services and is based on the measurement of the wood;

(c) That the order remains in effect for a one year period; and

(d) That the order shall not be stayed except by a request for hearing or an order of a court of competent jurisdiction.

2. The State Sealer shall send a copy of the order to any person providing services whom he finds to have been aggrieved by the violation.

C. No Order Issued. In a matter investigated under this section, if the State Sealer believes that a violation did not occur and he does not issue an order under subsection B, he shall so notify the person or persons, if any, whose allegations led to the investigation. The notice shall be in writing and shall be sent by certified mail.

D. Hearing.

1. In a matter investigated under this section, following the State Sealer's decision whether to issue an order, a hearing may be requested:

(a) If the State Sealer issues an order under subsection B, by the person to whom the order is directed; or

(b) If the State Sealer issues a notice under subsection C, by a person to whom the notice is sent.

2. The request for hearing shall be in writing and shall be delivered to the State Sealer or, if mailed, postmarked no later than 15 days after receipt of an order under subsection B or a notice under subsection C.

3. The State Sealer shall hold a hearing within 30 days of receipt of a request, unless a later date is agreed to by the State Sealer and the parties. The hearing shall be an adjudicatory proceeding within the meaning of the Administrative Procedure Act (5 M.R.S.A. Chapter 375).

4. An order issued under subsection B shall be suspended pending the outcome of the hearing.

E. Measurement Tally Sheet Requirements. Where an order suspending the privilege to measure wood out of state is in effect, measurement tally sheets shall be provided in advance of moving the wood out of state and in accordance with the general requirements for measurement tally sheets contained in Chapter 383.

AUTHORITY: 10 M.R.S.A. § 2361-A et seq.

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CHAPTER 382 MEASUREMENT OF WOOD AND DECLARATION OF QUANTITY

SUMMARY: This chapter of the Wood Measurement Rules establishes the standards for the measurement of wood and the declaration of quantity, including the handling of culled wood. It also includes the requirements for the construction and accuracy of instruments for measuring wood.

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SECTION 1. MEASURING INSTRUMENTS AND GENERAL RULES OF MEASUREMENT

- A. Measuring instruments - construction and accuracy.
 - 1. Sticks for scaling wood. All sticks for scaling wood shall conform to the following requirements:
 - (a) The zero end of each stick shall have metal securely attached to it.
 - (b) Markings indicating graduations and numbers shall be permanent and easily read.
 - (c) The finish shall be smooth and painted with a durable clear coating.

(d) The allowable error in graduations shall be determined according to the following table:

Nominal Interval from Zero (Feet)	Tolerance in Excess or Deficiency No Greater than (Inches)
3 or less	0.1
4	0.13
5	0.16
6	0.19
7	0.21
8	0.24

2. Flexible measuring tapes. Flexible measuring tapes shall conform to the following requirements:

(a) Tapes shall be made of steel, fiberglass, or other material equal in durability to steel or fiberglass.

(b) Markings indicating graduations and numbers shall be permanent and easily read.

(c) The tolerance in excess and deficiency for graduations on flexible measuring tapes shall be for 5 feet or less, 0.1 inches, and for each additional 5 feet, 0.1 inches.

NOTE: Construction and accuracy specifications. Construction and accuracy specifications for all measuring instruments are available upon written request to the State Sealer.

B. Length measurements. Linear, lineal or length measurements consist of determining the length of a line from one point to another. Linear refers to the length of the piece of wood along the vertical growing axis of the tree. Lineal refers to the measurement of the diameter of a cross section of the tree which is assumed to be circular in shape.

C. General rule for rounding off. Where not otherwise provided in these rules, decimals may be rounded off to the nearest whole interval. When the measurement is on the midpoint between two intervals, round down.

SECTION 2. PROHIBITION AGAINST CONVERSION BETWEEN SYSTEMS OF MEASUREMENT AND THE DECLARATION OF QUANTITY FOR PAYMENT OR PRICE

A. Declaration of quantity for payment or price. The quantity of wood and the related payment or price shall in all cases be represented in the standard unit for the measurement system used. The standard unit for each measurement system is provided in the appendix, page A-1.

B. Prohibition against conversions between measurement systems. Conversion between measurement systems is prohibited except under the following circumstances:

1. There is an absolute conversion factor between the two measurement systems and the conversion factor is stated. For example, conversion from cubic volume to metric volume is permitted; or,

2. The quantity is described in a term that corresponds directly to the total quantity measured, and the relationship between the descriptive term and the standard unit of measurement is provided. For example, the price of chips may additionally be expressed per truckload, where one truckload is specified as a particular number of chipcords; or,

3. The conversion is for inventory purposes only unrelated to payment for the wood.

SECTION 3: MIXED LOADS IN PAYMENT FOR SERVICES IN HARVESTING

Where more than one person or crew harvests wood which will not be measured until after it is hauled from the harvesting area, the wood shall be separately measured. This requirement does not apply under the following circumstances:

A. Where the persons providing the services agree in advance how the mixed load is to be allocated among them.

B. In the case of chipped wood, the persons providing the services may agree as to how the volume of the contents of the container is to be allocated among them. In the absence of an agreement, the person requiring services shall keep the piles of wood separate and shall allocate the quantity of chips based on the measurement of the separate piles.

SECTION 4. MULTIPLE PRODUCTION FORMS IN PAYMENT FOR SERVICES IN HARVESTING

Whenever wood is required to be harvested in one production form, such as tree length, but is not measured until the stems are prepared into another production form or forms according to the preparation directions in the cutting specifications, each portion of the prepared stem shall be separately identified and measured according to the requirements for its production form.

NOTE: An example of multiple production forms is stems that are required to be harvested and yarded tree length, and then are required to be bucked into log lengths and the remaining semi-tree length portion piled, or bucked into 4 foot lengths, or chipped, or otherwise prepared.

SECTION 5. WOOD PRODUCTION FORM AND CORRESPONDING AUTHORIZED SYSTEMS OF MEASUREMENT.

The production form of harvested wood is the form in which it is tendered for measurement. In the absence of a written agreement of the parties, the state standard system of measurement for a given production form shall be used. Where the parties make a written agreement, they may agree to use any authorized system of measurement which is permitted by this section for a given production form.

A. Tree length wood. Tree length wood means harvested trees that may have been topped, limbed, or butted back.

1. State standard - butt measure. Butt Measure is the state standard for the measurement of tree length stems in all transactions involving payment for services, and in all sales of wood where gross scale is the basis for payment. In the sale of wood where net scale is the basis for payment, butt measure is not permitted.

2. Other authorized systems of measurement. Where agreed upon, the parties may use any of the following authorized systems of measurement for tree length wood:

(a) Cubic measure;

(b) Butt scale: In the sale of wood, butt scale is permitted. In the case of payment for services, the use of butt scale is prohibited;

(c) Count; and

(d) Weight scale.

B. Log length wood (sawlogs and individually measured boltwood). Log length wood means stems or pieces of harvested trees that were topped, limbed, and bucked into specified lengths.

1. State standard. The state standard for the measurement of log length wood is log scale, using the International 1/4 Inch Rule.

2. Other authorized systems. Where agreed upon, the parties may also use any of the following authorized systems of measurement for log length wood:

(a) Any of the following log rules: Bangor Rule; Maine Rule (also called the Holland Rule); International 1/8 Inch Rule;

(b) Cubic measure;

(c) Butt measure;

(d) Count scale; and

(e) Weight scale.

C. Stacked wood. Stacked wood means stems or pieces of harvested trees that were topped, limbed, and bucked into uniform length, up to 9 feet long, and that were ranked and well stowed, and which are measured as a stack and not individually.

1. State standard. The state standard for stacked wood is stick cord scale and the quantity is represented in either standard cords or face cords.

2. Other authorized systems. Where agreed upon, the parties may also use weight scale to measure stacked wood.

D. Chipped wood. Chipped wood means any portion of a harvested tree that is processed into chips, shavings, or any other particulate form of wood.

1. State standard. The standard state method for the measurement of chipped wood is chip volume scale. The standard measurement unit is the chipcord, that is, the volume of chipped material contained in 128 cubic feet, measured at the time of the transaction.

2. Weight Scale. Where agreed upon, the parties may use weight scale. Where they agree to use weight scale, they may use oven-dried weight.

E. Polewood. Polewood means long segments of stems that were topped, limbed, and may have been butted back.

1. State standard. The state standard for the measurement of polewood is linear measure.

2. Other authorized systems. Where agreed upon, the parties may use any of the following authorized systems of measurement for polewood:

- (a) Count;
- (b) Cubic measure;
- (c) Butt measure; and
- (d) Weight scale.

F. Unstacked fuelwood-length wood. Unstacked fuelwood-length wood means harvested trees that have been topped, limbed, and bucked into uniform lengths averaging 12, 16, or 24 inches, which may have been split, and which are loose and not ranked and well stowed.

1. State standard. The state standard for the measurement of unstacked fuelwood-length wood is thrown cord scale.

2. Other authorized systems. Where agreed upon, the parties may also use either of the following methods of measurement for unstacked fuelwood-length wood:

- (a) Count; and
- (b) Weight scale.

G. Semi-tree length and chunkwood. Semi-tree length and chunkwood means the remaining portions of harvested trees that were required to be yarded tree-length and, in part, bucked into other production forms. Semi-tree length and chunkwood includes pieces of any length and size but does not include negligible wood. Negligible wood means segments of trees that were not piled for further processing and the disposition of which is disregarded by the person requiring the services.

1. State standard. Butt measure is the state standard for the measurement of semi-tree length wood and chunkwood.

2. Other authorized systems. Where agreed upon, the parties may use either of the following authorized systems of measurement for semi-tree length wood and chunkwood:

- (a) Count;
- (b) Cubic measure;
- (c) Weight scale.

SECTION 6. SYSTEMS OF WOOD MEASUREMENT

There are eleven (11) authorized systems of wood measurement: Butt measure, count, butt scale, stick cord scale, log scale, linear scale, cubic foot measure, chip volume scale, thrown cord scale, weight scale and sample scaling. Included in the Appendix at page A-2 is a table summarizing the different systems.

A. Butt measure.

1. General description. Butt measure is the lineal measurement of the butt-end diameter of a severed stem. In contrast to cubic measure and butt scale, the volume of the stem is not relevant to the measurement.

2. Authorized use.

- (a) State standard. Butt measure is the state standard system for the measurement of tree length wood and semi-tree length and chunkwood.
- (b) Log length wood. Where agreed upon, the parties may also use butt measure in the case of log length wood and polewood.
- (c) Prohibited use. Where net scale is the basis for payment, the use of butt measure is prohibited.

3. Measurement procedure for gross scale.

- (a) Butt measure requires:
 - (i) Determination of the diameter of the butt end of the stem or piece, expressed in inches or in diameter class, and

(ii) Computation of the measurement unit using either the diameter count method or the cumulative sum method.

(b) Measurement of the butt diameter.

(i) The measurement of the butt diameter shall be accomplished by measuring the diameter of the butt end (large end) of the stem or piece. The diameter measurement shall be made:

AA. The short way through the geometric center of the butt end;

BB. From the outside surface of the bark to the opposite outside surface of the bark;

CC. Disregarding crevices and cracks;

DD. Perpendicular to the vertical axis of the tree.

(ii) "Crevices and cracks" means any indentations in the stem regardless of how they are labeled or how they were caused. "Crevices and cracks" are distinguished from rounded depressions. Directions for distinguishing between "crevices and cracks" and "rounded depressions" under various circumstances are provided in the appendix, pages A-8 through A-13.

(iii) The "geometric center of the stem" is the point where a slice of the severed end would balance atop a marking pencil.

(iv) Round off the diameter measurements to the nearest inch. When the measurement falls exactly on the .50 (1/2) inch mark, round down.

(c) Computation of units. Butt diameter units shall be computed using one of the following methods:

(i) Diameter count. Using this method, the quantity is totaled by counting the number of stems for each diameter class. The total is then represented in the numerical count for each diameter class.

(ii) Cumulative sum. Using this method, the quantity is totaled by adding together the inch measurements of all diameters measured without regard to the diameter class. The total is then represented in stem units, where one stem unit equals 100 inches. Under this method, four 5-inch diameter stems have the same value as one 20-inch stem.

4. Net scale - discounting. In all wood transactions in which butt measure is used, taking deductions from gross scale is prohibited.

5. Marking. When butt measure is used, all wood shall be marked as follows:

(a) Mark the measured diameter or diameter class of each piece on the sawn surface; and

(b) Mark culled wood in an easily visible and distinct manner.

6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where butt measure is used, the standard unit of measurement depends on whether the diameter count or the cumulative sum method was used.

(a) Stems. Where the diameter count method is used to total the measured inches, the quantity is expressed in stems by diameter inch class. Payment or price per stem by diameter class may be furnished in a stem rate table. For example, there might be one stem rate table in one inch class intervals for unlimbed spruce and fir, and another table for limbed spruce and fir.

(b) Stem units. Where the cumulative sum method is used to total the measured inches, the quantity is expressed in stem units, where 100 inches equals one stem unit.

8. Tally. Measurement tally sheet requirements for butt measure are set forth in Chapter 383.

B. Count.

1. General description. When trees, stems or pieces are measured by count, the number of trees, stems, or pieces are tallied by species or other groupings.
2. Authorized use. Where agreed upon, count may be used for tree length wood, log length wood, polewood, unstacked fuelwood length wood, and semi-tree length and chunkwood.
3. Measurement procedure for gross scale. Count the number of stems or pieces by species or other groupings.
4. Net scale - discounting. In all wood transactions where stems or pieces are measured using count, taking deductions from gross scale is prohibited.
5. Marking. Mark culled wood in an easily visible and distinct manner.
6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.
7. Declaration of quantity. Where count is used, the quantity is expressed in pieces.
8. Tally. Measurement tally sheet requirements for count are set forth in Chapter 383.

C. Butt scale.

1. General description. Butt scale is the lineal measurement of the butt diameter converted to cubic foot volume by formula or otherwise. The volume is expressed in cunits or in standard cord units. The butt diameter measurement is made in the same manner as in butt measure.
2. Authorized use. In the sale of wood, butt scale is authorized for use on tree-length wood where agreed upon by the parties. Butt scale is prohibited in the case of payment for services.
3. Measurement procedure for gross scale.
 - (a) Butt scale requires:
 - (i) Determination of the diameter of the butt end of the stem expressed in inches; and

- (ii) Computation of the cubic foot volume by way of a formula or other procedure designed for that purpose, and representation of the quantity in cunits; or
 - (iii) Computation of the cubic foot volume and conversion to equivalent standard cord units; and
 - (iv) Preparation of a table which represents the computed correlation between diameter size and volume, expressed in cunits or equivalent standard cord units.
- (b) Measurement of the butt diameter.
- (i) The measurement of the butt diameter shall be accomplished by measuring the diameter of the butt end (large end) of the stem or piece. The diameter measurement shall be made:
 - AA. The short way through the geometric center of the butt end;
 - BB. From the outside surface of the bark to the opposite outside surface of the bark;
 - CC. Disregarding crevices and cracks; and
 - DD. Perpendicular to the vertical axis of the tree.
 - (ii) "Crevices and cracks" means any indentations in the stem regardless of how they are labeled or how they were caused. "Crevices and cracks" are distinguished from rounded depressions. Directions for distinguishing between "crevices and cracks" or "rounded depressions" under various circumstances are provided in the appendix at pages A-8 through A-13.
 - (iii) The "geometric center of the stem" is the point where a slice of the severed end would balance atop a marking pencil.

(iv) Round off the diameter measurements to the nearest inch. When the measurement falls exactly on the .50 (1/2) inch mark; round down.

(c) Computation of cunits or standard cord units.

(i) The volume of wood in a stem of a given diameter size shall be derived from a volume table developed for that purpose where the volume is represented in either cunits or standard cord units.

(ii) Where the volume is represented in standard cords, the parties may designate a reasonable and appropriate factor to be used to convert cubic feet to standard cords. That conversion factor must be set forth in the wood quality specifications. In the absence of a designation of a reasonable and appropriate conversion factor stated in the wood quality specifications, the following factors shall be imputed:

Softwood-85 cubic feet of wood including bark equals one standard cord; and

Hardwood - 80 cubic feet of wood including bark equals one standard cord.

In the case of measuring mixed species which have different conversion factors, the wood quality specifications shall state the conversion factor for each of the species and the applicable combined conversion factor that will be used for measuring the wood. In all cases the combined conversion factor shall be reasonable.

(iii) Bark in the conversion from cubic feet to standard cords.

AA Inside bark. The conversion factor used to calculate the number of standard cords may be based on inside bark measurements or volumes provided the wood quality specifications state

the manner in which the conversion to standard cords is made. In the event that outside bark measurements are taken but the conversion to standard cords is calculated based on inside bark volumes, the method of calculating the amount of bark shall also be stated.

BB Outside bark. In all other cases, the conversion factor used to determine the number of standard cords, including bark, shall be based on outside bark measurements and volumes.

(d) Construction of the volume table.

(i) The volume table shall be set up by one-inch diameter classes.

(ii) The volume table shall be labeled to:

AA Designate the harvesting area, or areas, to which it applies; and

BB Indicate whether the volume is expressed in cunits, net cunits, standard cord or net standard cord unit.

(iii) Calculation of the cubic volume of wood shall be based on the measurement procedures set forth in this chapter, section 5(G), "Cubic foot measure".

(e) Required furnishing of volume table. The applicable volume table shall be furnished with the wood quality specifications.

4. Net scale - discounting. In the sale of wood, when butt scale is used, reasonable deductions may be made for merchantability factors, provided:

(a) All merchantability factors for which deductions will be taken shall be specified in the wood quality specifications.

(b) In calculating the number of standard cords, bark may not be treated as a merchantability factor.

(c) Deductions for interior defects may be computed using the formula: $\frac{(H \times W)}{144} \times L =$

volume of defect in cubic feet, where the height H and width W of the defective area are expressed in inches, and the length L is expressed in feet and tenths of feet alternatively. Where permitted in subparagraph (e), the parties may use the "Grosenbaugh" method of calculating interior defects.

(d) In the case of deductions, other than for interior defect the standard procedure contained in the National Forest Log Scaling Handbook, Code 82.3 (Cubic Foot Measurement - defect deduction) shall be used except as permitted in subparagraph (e), below. The relevant portion of the National Forest Log Scaling Handbook is set forth in the Appendix A-14.

(e) Alternatively, the parties may use the "Grosenbaugh" method of calculating deductions provided the State Sealer is furnished, in advance, with a copy of the corresponding wood quality specifications and measurement procedures.

NOTE: Upon written request an application of the "Grosenbaugh" methodology may be obtained from the State Sealer.

5. Marking. When butt scale is used, mark all wood as follows:

(a) Mark the diameter of each stem on the butt end; and

(b) Mark any culled wood in an easily visible and distinct manner.

6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where butt scale is used, the standard units of measurement are:

(a) Gross scale Cunits or standard cords

(b) Net scale Net cunits or net standard cords

8. Tally. The measurement tally sheet requirements for butt scale are set forth in Chapter 383.

D. Stick cord scale.

1. General description. Stick cord scale is the measurement of a stack of uniform length bolts which measure up to 9 feet in length. The quantity is expressed in standard cords or face cords.

2. Authorized use.

(a) State standard. Stick cord scale is the state standard system of measurement for stacked wood where the sticks measure no more than 9 feet in length.

(b) Prohibited use. The use of stick cord scale is prohibited for any wood production form other than stacked wood, or for sticks that exceed 9 feet in length.

3. Measurement procedure for gross scale.

(a) Stick cord scale requires:

(i) Determination of the height and length of the pile, where the measurements are expressed in inches or feet and tenths of feet; and

(ii) Calculation of the quantity in standard cords or face cords.

(b) Width of pile (length of bolts).

(i) The width of the pile is the average length of the individual bolts, measured from saw cut to saw cut.

(ii) Unless otherwise specified, the allowance for variance in the length of the bolts shall be + 1/2 inch per foot. Any specified variance shall be expressed in plus or minus the same interval.

(c) Height of the pile.

(i) The height of the pile is the measurement from its top surface to its bottom surface.

(ii) The standard interval for measurement is two feet on the ends of the pile, and every four feet along the level height of the pile. When the top surface of the pile is not level, height measurements shall be taken at two foot intervals. When the wood is stacked in a truck, railroad car, or other contained structure a reasonable interval for measurement shall be used to accurately determine the height of the stacked wood.

(iii) When the bolts are piled on an incline, the height measurements shall be taken at right angle to the slope.

(iv) To compute the average height of the pile, add all the height measurements together and divide by the number of measurements taken.

(d) Length of the pile.

(i) The length of the pile shall be measured from the outside edge of the pile or tier, except where a pile drops off in height forming a slope; then, the length measurement is taken from the point where half of the first height measurement intersects with the line of the slope.

(ii) When the bolts are stacked on an incline, the length measurements shall be taken parallel to the slope.

(iii) When the lengths measured at the front and the back of the pile are not the same, the lengths shall be added together and then averaged.

(e) Computation of standard cords and face cords.

(i) When the specified length of the bolts is 4 feet, the quantity of wood shall be computed in standard cords. When the specified length is other than 4 feet, the quantity of wood may be computed in either standard cords or face cords.

(ii) Standard cord computation. To compute the standard cord volume of a pile of 4 foot long bolts stacked 4 feet high and 8 feet long, or the equivalent, use the formula:

$$\frac{H \times L \times W}{128} =$$

number of standard cords, where H is the height of the pile, L is the length of the pile, and W is the width of the pile (length of bolts), and where the measurements are stated in feet and tenths of feet.

(iii) Face cord computation. To compute the square foot area of the face of the pile, use the following formula:

$$\frac{H \times L}{32} = \text{number of}$$

face cords, where H is the height of the pile, L is the length of the pile, and where all measurements are stated in feet and tenths of feet.

(f) Permitted gross scale reductions. Where stick cord scale is used, reasonable reductions may be made for:

(i) Voids that will accommodate a bolt of the average diameter of the bolts in the pile. Where the bolts vary in diameter, the average diameter bolt shall be calculated as the average diameter of the bolts surrounding the void.

(ii) Bolts that were marked and handled as culled wood.

4. Net scale - discounting.

(a) Where payment is made for services, taking deductions from gross scale is prohibited.

(b) In the sale of wood, when stick cord scale is used, reasonable deductions for merchantability factors may be taken on bolts that were not culled, provided:

(i) The merchantability factors were included in the wood quality specifications;

(ii) Bark is not included as a merchantability factor; and

(iii) Unless otherwise provided in the wood quality specifications, deductions for defects shall be computed based on height and width of visible defects on the sawn surface of bolts on the side of the pile being measured. It shall be assumed that any visible defect extends through the full length of the bolt.

5. Marking. When payment is made for services, and in a sale unless otherwise agreed upon by the parties, and where the pile is measured prior to hauling from the harvesting area, the wood shall be marked as follows:

(a) Stakes or a heavy vertical crayon mark shall be used to make a "break" in a pile to separate one measured pile from another.

(b) A notation shall be made on a sizable bolt near the top of the measured pile identifying the pile by number or otherwise, and noting the measurement of the pile in standard cords or by dimensions.

(c) Mark culled wood in an easily visible and distinct manner.

6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where stick cord scale is used, the standard units of measurement are:

(a) Gross scale Standard cords or face cords

(b) Net scale Net standard cords or net face cords

8. Tally. The measurement tally sheet requirements for stick cord scale are set forth in Chapter 383.

E. Log scale.

1. General description. Log scale is the measurement of logs using a log rule. A log rule is a standard table that states in board feet the apparent amount of lumber that can be sawn from logs of different size classes under assumed conditions. The International 1/4 Inch Log rule, for example, assumes a saw kerf of 1/4 inch, taper of 1/2 inch in each 4 foot length, and an average of 1/2 inch of sweep or crook in each 4 foot length. No log rule gives the actual measure of the number of board feet that will be sawn from a given size log. Instead, the log rule is simply a uniform system of measurement. Gross scale is the dimensional measurement of the log without regard to any scaling defects. Net scale is the gross scale less length, diameter, or volume deductions taken to discount for scaling defects in the log. The authorized log rules are included at pages A-4 through A-7 of the Appendix.

2. Authorized use.

(a) State standard. Log scale using the International 1/4 Inch Rule (I.R.) is the state standard for the measurement of log length wood.

(b) Where agreed upon by the parties, log scale using any of the following rules is authorized: Bangor Rule (B.R.), Maine (Holland) Rule (M.R.), and the International 1/8 Inch Rule (I.R. 1/8).

(c) The use of log scale is prohibited for production forms other than log length wood.

3. Measurement procedure for gross scale.

(a) Log scale requires:

(i) Use of the correct log rule stick for the log rule specified;

(ii) Determination of the top end diameter and the length of the log; and

(iii) Computation of the board foot measurement, using the log rule table printed on the scale stick.

(b) Top diameter measurements.

(i) Top diameter measurements shall be taken at the small end from inside the bark, through the geometric center, avoiding abnormal bulges, crevices and cracks and other depressions, and to the extent possible, shall be made as though these conditions do not exist.

(ii) Where the top end is evenly rounded, and not oval or irregularly shaped, only one diameter measurement is required. Where the top end is not rounded in shape, measure the short diameter first, and then take a second measurement at a right angle to the first and average the diameter measurements.

(iii) Make all measurements perpendicular to the vertical axis of the tree.

(iv) All measurements shall be taken to the nearest inch.

AA Round exact 1/2 inch measurements before averaging. Round up when it is one of a pair to be averaged. When both of a pair to be averaged fall on 1/2 inch marks, round one up and one down.

BB If the averaged diameter is on a 1/2 inch, then round down for the final scaling diameter.

(c) Length measurement.

(i) For stump cuts, measure length from the point at which the scaling cylinder emerges. For other cuts, make length measurements from the short side.

NOTE: An illustration of the proper method of making length measurements, when using the International 1/4 Log Rule is furnished in the Appendix at A-15.

(ii) Trim allowance. In the cutting specifications or the wood quality specifications:

AA General rule. A trim allowance of up to 6 inches may be specified without affecting the scaling length.

Where trim allowance greater than 6.0 inches is specified, the length measurement shall be rounded up to the next whole foot.

BB Exception to general rule. Where the written specifications provide for acceptable lengths in multiples of a certain length, a trim allowance of up to 2 inches per multiple is permissible without rounding up to the next whole foot.

(iii) Insufficient trim.

AA Except as otherwise agreed upon by the parties, logs lacking sufficient trim allowance will be reduced in scaling length to the next lower standard log length

BB Where no trim allowance was specified, no reduction in scaling length may be made for lack of trim.

(iv) Logs longer than 20 feet. Unless otherwise agreed upon in writing, logs longer than 20 feet shall be scaled as two logs of approximately equal length and the scaling diameter of the bottom log shall be assumed to be two inches larger than the measured top end diameter.

(d) End breaks and splits. A reduction for end breaks and splits is prohibited in the case of payment for services, except where the end break or split results from the improper harvesting or hauling methods of the person providing the services. Where permissible, a reduction for end breaks and splits shall be made according to the procedure provided in the National Forest Log Scaling Handbook, Code 33 (Breaks and Splits). The relevant provisions of the National Forest Log Scaling Handbook are set forth in the appendix, page A-16.

4. Net scale - discounting.

(a) In the case of payment for services, taking deductions from gross scale is prohibited.

(b) In the case of the sale of wood, reasonable diameter, length, and volume deductions may be taken for merchantability factors, provided the merchantability factors were included in the wood quality specifications.

(c) Computations of Deductions.

(i) Interior deductions. Deductions for computing interior defects are computed by enclosing the defective area with a measured square or rectangle, and then computing the volume within the square or rectangle area. Tables are available to make this computation. The formula used in constructing the table, when the International 1/4 Inch Rule is used,

$$\text{is } D = \frac{(W+1) \times (T+1) \times L}{16} \text{ where } D$$

is the defect or discount in board feet. W is the width of defect in inches, T is the thickness of defect in inches, and L is the length of defect in feet. When a log shows defect at both ends, then the defect at each end shall be assumed to run at its measured dimensions to the mid-point of the log.

(ii) Deductions for seams and cracks. In making deductions for seams and cracks the pie-cut method shall be used. The deduction shall bear the same relation to the total scale as the sector bears to the circle, i.e. a straight seam or crack running from pith to bark the full length of the log would be deducted at 1/8 of the gross scale; a seam or crack from pith to bark which spirals through from butt to top would be deducted as:

45 degrees = 1/8 of gross scale deduction
90 degrees = 1/4 of gross scale deduction
120 degrees = 1/3 of gross scale deduction
180 degrees = 1/2 of gross scale deduction

(iii) Deductions for end breaks and splits. Deductions for end breaks and splits shall be made according to the procedure provided in the National Forest Log Scaling Handbook, Code 33 (Breaks and Splits), the relevant provisions of which are set forth in the appendix, page A-16.

(iv) Diameter deductions. Diameter deductions may be made for sap rot, catfaces, and knots and similar surface defects.

(v) Length deductions. Length deductions may be made for butt rot, crook or sweep beyond a specified amount, crotch, burls, and voids.

(vi) Deductions for sweep and crook. A reasonable deduction may be made for excessive sweep and crook, provided that when the International 1/4 Inch Log Rule is used no deduction may be made except where the amount of sweep or crook exceeds 1/2 inch for each 4 foot length.

(vii) Computation of permissible deductions. Except as otherwise provided in this subsection, all deductions shall be made according to the applicable standards in the National Forest Log Scaling Handbook, Chapter 20, or alternatively, the parties may use the "Grosenbaugh" method of calculating deductions, provided the State Sealer is furnished in advance with a copy of the corresponding wood quality specifications and measurement procedures.

NOTE: Upon written request a copy of the relevant provisions of Chapter 20 of the National Forest Log Scaling Handbook or application of the "Grosenbaugh" methodology may be obtained from the State Sealer.

5. Marking. All logs shall be marked where payment is made for services; and, unless otherwise agreed upon by the parties in a sale transaction:

(a) Mark the gross scale or the small end diameter on each measured log. The measurement shall be marked on the measured top end. Where that mark is not easily visible, the butt end shall also be marked.

(b) Mark any culled logs in an easily visible and distinct manner.

6. Culled Wood. Culled logs shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where log scale is used, the quantity of wood shall be represented as follows:

(a) Gross scale: Board feet, identifying log rule used (for example, bd. ft. I.R.).

(b) Net scale: Net board feet, identifying log rule used (for example, bd. ft. I.R.)

8. Tally. The measurement tally sheet requirements for log scale are set forth in Chapter 383.

F. Linear measure.

1. General description. Linear measure involves the measurement of a stem or piece by length only, up to a specified top diameter size. For measurement purposes, the volume of wood is not relevant. Trees harvested for use as pilings, or for power and telephone poles, are often measured using linear measure.

2. Authorized use.

(a) State standard. Linear measure is the state standard system of measure for polewood.

(b) Prohibited use. The use of linear measure is prohibited for any production form other than polewood.

3. Measurement procedure for gross scale.

(a) Linear measure requires determination of the length of the stem, where the length is expressed in feet and tenths of feet or inches.

(b) The length of the stem is measured from saw cut to saw cut, on the short side.

(i) When the stem is cut above the minimum top diameter, take the length measurement from the point where the specified diameter is reached.

(ii) The length shall be expressed in feet and tenths of feet or inches. Any trim must be included within the minimum length and may not be specified as a separate allowance.

4. Net scale - discounting.

(a) Where payment is made for services, taking deductions from gross scale is prohibited.

(b) In the sale of wood, reasonable length deductions for merchantability factors may be taken, provided the merchantability factors were included in the wood quality specifications.

5. Marking. All logs shall be marked where payment is made for services, or unless otherwise agreed by the parties in a sale transaction:

(a) Mark the scaling length of each measured stem or piece on the sawn surface of the butt end.

(b) Mark culled wood in an easily visible and distinct manner.

6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where linear measure is used, the quantity of wood shall be expressed as follows:

(a) Gross scale Linear feet

(b) Net scale Net linear feet

8. Tally. The measurement tally sheet requirements for linear measure are set forth in Chapter 383.

G. Cubic foot measure.

1. General description. Cubic foot measure is the measurement of solid volume expressed in cubic feet, where 100 cubic feet equals one cunit. In contrast to stick cord scale, individual stems or pieces are measured, not a stacked unit. In contrast to log scale, this system does not exclude the measurement of the exterior slabs, edging, and saw kerf.

2. Authorized use. Cubic foot measure may be used to measure tree length wood, log length wood, polewood, and semi-tree length and chunkwood.

3. Measurement procedure for gross scale. Unless otherwise authorized by the State Sealer as provided for below, the cubic content of each measured stem or piece shall be computed by means of the formula:

$$V = \frac{(A + a)}{2} L, \text{ where } V \text{ is the volume}$$

in cubic feet, A is the area in square feet of the large end of the measured stem, a is the area in square feet of the small end of the stem or piece, and L is the length of the stem or piece in feet and tenths of feet. Use of an alternative formula is permitted only by approval of the State Sealer. The State Sealer may require submission of documentation to support a request for an alternative formula. The approval for the use of the alternative formula shall be based on a determination that the alternative formula is included in the sales contract or applicable wood quality specifications, the formula is reasonable and appropriate for its intended use, and the method of making the measurement is consistent with the measurement procedures set forth below. In all cases length and diameter measurements shall be made as follows:

(a) Length measurement.

(i) Measure the length of the stem or piece from saw cut to saw cut, on the short side.

(ii) Where a specific length is required, measure the stem or piece according to the maximum length that conforms to the specifications. Where the specifications provide for a "trim allowance," it shall be included in the measured length.

(iii) Express the length in feet and tenths of feet.

(b) Top and bottom end diameters.

(i) Measure the diameter of each end the short way across, through the geometric center of the stem, disregarding crevices and cracks, and perpendicular to the vertical growing axis of the tree.

AA "Crevices and cracks" means any indentations in the stem regardless of how they are labeled or how they were caused. "Crevices and cracks" are distinguished from rounded depressions.

BB The "geometric center of the stem" is the point where a slice of the severed end would balance atop a marking pencil.

(ii) Bark. For purposes of calculating the number of cunits:

AA Inside bark measurements are permitted where specified in the written specifications.

BB Absent written specification, all measurements shall be made from outside the bark.

(iii) Express the diameter measurements in inches.

4. Net scale - discounting.

(a) Where payment is made for services, taking deductions from gross scale is prohibited.

(b) In the sale of wood, reasonable deductions may be made for merchantability factors, provided the merchantability factors were included in the wood quality specifications.

(c) Computation of permissible deductions.

(i) Deductions for interior defects are computed using the formula $\frac{(H \times W)}{144} \times \underline{L} =$

cubic volume of interior defect, where the height \underline{H} and width \underline{W} are in inches, and length \underline{L} is in feet and tenths of feet;

(ii) Bark may be included as a merchantability factor for which a deduction may be taken in computing net scale.

(iii) The standard procedures contained in the National Forest Log Scaling Handbook Code 82.3 (Cubic Foot Measurement - Defect Deduction) shall be used to compute defect deductions. Alternatively, the parties may use the "Grosenbaugh" method of calculating deductions, provided the State Sealer is furnished in advance with a copy of the corresponding wood quality specifications and the relevant measurement procedures.

NOTE: The relevant provisions of the National Forest Log Scaling Handbook are set forth in appendix, page A-14. Upon written request an application of the "Grosenbaugh" methodology may be obtained from the State Sealer.

5. Marking. When cubic foot measure is used, all stems and pieces shall be marked;

(a) Mark in an easily visible and uniform manner each stem or piece that is measured, showing the length and diameter measurements.

(b) Mark any culled stem or piece in an easily visible and distinct manner.

6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where cubic measure is used, the standard units of measurement are:

(a) Gross scale Cunits

(b) Net scale Net cunits

8. Tally. The measurement tally sheet requirements for cubic foot measure are set forth in Chapter 383.

H. Chip volume scale.

1. General description. Chip volume scale is the volumetric measurement of any portion of a tree that is in the form of chips, shavings, sawdust, or other particulate forms of wood. The quantity of wood is measured in cubic feet and expressed in either one hundred cubic foot units or in chipcords, where one chipcord equals 128 cubic feet of chipped material.

2. Authorized use.

(a) State standard. Chip volume scale is the state standard for the measurement of chipped or other particulate form of wood.

(b) Prohibited use. Chip volume scale may not be used where wood is tendered for measurement in other than particulate form.

3. Measurement procedure for gross scale. The measurement of chipped wood using chip volume shall be accomplished by determining the volume in cubic feet of the space occupied by the chipped material. The total cubic volume is then divided by 128 to determine the number of chipcords.

(a) Container unit.

(i) A container in which chipped wood is measured shall be marked in an easily visible manner to indicate the total volume capacity. The capacity shall be expressed in cubic feet.

(ii) A container in which chipped wood is measured shall also be marked in an easily visible manner in reasonable intervals. The capacity at each interval shall be expressed in cubic feet.

NOTE: The State Sealer is available to recommend an appropriate manner to mark a container.

(b) Intermediate volume. Where there are insufficient chips to be measured to fill the container and the quantity of chips is between marked intervals, the scaler shall interpolate to determine the quantity.

(c) Time and place of measurement. The volume shall be measured at the time and place possession of the chipped wood is transferred between the parties to the transaction, unless the parties have agreed in writing to an alternative time and place.

(d) Permissible gross scale measurement reductions.

(i) In all wood transactions where foreign matter, such as dirt or foreign objects, are separately identified, the volume of chipped wood shall be reduced by the measured volume of the foreign material.

(ii) No portion of a tree, stem, or piece that was designated to be chipped shall be treated as foreign material.

4. Net scale - discounting. In all wood transactions in which chip volume scale is used, taking deductions from gross scale is prohibited.

5. Marking. Culled wood that is not to be chipped shall be separated in advance of chipping and marked in an easily visible and distinct manner.

6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where chip volume scale is used, the quantity of wood measured shall be expressed in chipcords, where one chipcord equals 128 cubic feet of chipped material.

8. Tally. The measurement tally sheet for chip volume scale are set forth in Chapter 383.

I. Thrown cord scale.

1. General description. Thrown cord scale is the measurement of round or split fuelwood-length wood measured in a container. Fuelwood-length wood is bolts that average 12, 16, or 24 inches in length. In contrast to stick cord scale, the bolts are tossed loose into a container and are not ranked and well stowed.

2. Authorized use.

(a) State standard. Thrown cord scale is the state standard method for the measurement of unstacked fuelwood-length bolts, split or unsplit, which are not ranked and well stowed.

(b) Prohibited use. Thrown cord scale may not be used to measure production forms other than unstacked fuelwood-length wood.

3. Measurement procedures for gross scale. The measurement of fuelwood-length wood, using thrown cord scale, shall be accomplished by computing the cubic volume of space in the container that is occupied by the thrown wood.

(a) The thrown wood shall be measured in a square or rectangular container, such as an enclosed vehicle bed.

(b) If the top surface of the wood is not level, height measurements shall be taken at regular intervals perpendicular to the bottom of the container.

(c) Container capacity.

(i) The container in which the wood will be measured shall be marked in an easily visible manner to indicate total capacity and the marking shall be expressed in cubic feet.

(ii) Where the container will be used to measure partial capacity, the container shall, at minimum, be marked in intervals of one hundred cubic feet.

(d) The computation of volume in thrown cords shall be accomplished as follows:

(i) Determine the cubic volume of the container or, by interpolation, determine the partial volume of the container.

(ii) Once the cubic volume of a container space is known, the computation of volume in standard cords shall be based on the following equivalent values:

AA In the case of bolts that average 12 or 16 inches in length, one standard cord equals the amount of wood, bark and air in a space of 180 cubic feet.

BB In the case of bolts that average 24 inches in length, one standard cord equals the amount of wood, bark, and air in a space of 195 cubic feet.

4. Net scale - discounting. In all wood transactions in which thrown cord scale is used, the taking of deductions from gross scale is prohibited.

5. Marking. Culled wood shall be separated and marked in an easily visible and distinct manner.

6. Culled wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity. Where thrown cord scale is used, the quantity shall be represented in standard cords.

8. Tally. The measurement tally sheet requirements for thrown cord scale are set forth in Chapter 383, Section 4.

J. Weight scale.

1. General description. Weight scale is the measurement of wood in any production form by its weight. The weight may be represented according to the actual weight at the time of measurement or according to the calculated dry weight. Dry weight is the weight of wood after subtracting the weight of its moisture content as determined by the oven-dried weight method, the infra-red moisture determination method, or by an alternative method of equal or greater accuracy.

(a) Oven-dried weight means the weight of wood that has been processed to dry until no further moisture loss occurs and a stable weight is reached. The computation of the weight of oven-dried wood may be based on the oven-dried weight of a sample of the wood.

(b) The infra-red moisture determination method is the determination of moisture content in wood using an infra-red analyzer. In this process the load of wood is weighed and then passes a point on a belt conveyer where a light beam is focused to illuminate the sample being measured. The microprocessor averages the numerous individual percent moisture determinations as the load passes the instrument and records the average moisture content for the load.

2. Authorized use. Where agreed upon by the parties, weight scale may be used to measure wood in any production form. Representation of the weight shall be the actual load weight, except that representation of dry weight is permitted, provided that:

(a) Representation of quantity on the measurement tally sheet indicates that the weight represented is the dry weight, and

(b) When any method other than the oven-dried method is used:

(i) Any person proposing to use infra-red moisture analyzing equipment, other moisture analyzing equipment, or any other alternative way of measuring the moisture content of wood shall send a written request to the State Sealer requesting permission to do so, supplying all information necessary for the State Sealer to determine whether to issue the authorization.

(ii) Infra-red moisture analysis or an alternative method of moisture determination may be used only when authorized in writing by the State Sealer after the State Sealer has verified that the equipment in use and the installation result in accurate moisture determinations.

(iii) The State Sealer may attach reasonable conditions to any authorization, including, but not limited to, the term of the authorization the type of equipment and the method of use as well as any required studies, record keeping and reporting.

(iv) The equipment must be sealed with a lead and wire security seal by the State Sealer and opened only after his notification and permission.

(v) During the period of time when the chips are partially or completely frozen, grab samples will be taken on each load measured by the Quadra-Beam in the normal manner at the time load is passing on the conveyor. These samples will be taken to the lab and a moisture determination will be made immediately (before the sample has thawed) with the Quadra-Beam analyzer located there. Subsequent to this reading, the sample will be sealed so no moisture gain or loss will take place then allowed to set overnight. The following day (after the sample is completely thawed) the sample will be

unsealed, stirred and a second analyzer reading be taken. A ratio of these two readings will then become a factor to be applied to the regular moisture determination taken at the time the chips were being unloaded, thus;

$$\frac{\text{Frozen Chip Quadra-Beam Reading}}{\text{Thawed Chip Quadra-Beam Reading}} \times \text{Load Reading at time of unloading}$$

= Wood Moisture Determination Adjusted for any Variation Caused by Frozen Chips

2-A. The "Green Wood" Rule - Alternative method of measurement available when wood not promptly weighed in case of payment for services in harvesting.

(a) Alternative method available. Under the following conditions, the person providing services in harvesting may require that the wood instead be measured at the harvesting site using the state standard method of measurement for the production form of the wood involved.

(i) Time frame. The person providing the service may require an alternative method in the case of wood which is not or will not be weighed within 15 days of felling.

(ii) Form of notice. The notice requiring the alternative method of measurement must be in writing and identify the wood involved. The notice must be delivered to the person requiring the services or such other person responsible for measuring the wood.

(iii) Compliance with "Green Wood" Rule. Upon receipt of a notice requiring an alternative method of measurement, the person requiring the services shall measure the wood at the harvesting site within 15 days using the state standard method of measurement for the production form of the wood involved.

(b) Delayed weight scale. If the person providing the services does not require an alternative method of measurement, he may agree to delayed weight scale. In the case of delayed weight scale:

(i) the parties shall designate the period within which the wood will be weighed and, shall agree on a reasonable and appropriate factor to account for any resulting loss of moisture (weight).

NOTE: For example the parties might agree as follows: if wood felled between December 30 and April 30 is not weighed within 15 days: add 2% to the actual weight; and, if wood felled between May 1 and September 30 is not weighed within 15 days of felling: add 10% to the actual weight; and if wood felled between October 1 and November 30 is not weighed within 15 days of felling: add 5%.

(ii) The person requiring the service shall furnish the person providing the service with a written record of the wood within 20 days of when the service of harvesting the wood was performed.

NOTE: The information required on the written record is set forth in Chapter 383, section 1(A).

3. Measurement procedures for gross scale.

Measurement computations shall be made as follows:

(a) Single and multiple draft methods. In single draft method all axles of a commercial vehicle shall be weighed simultaneously on one or more scales, except that the weight of a coupled combination may be determined by uncoupling the various elements (tractor, semi-trailer, trailer), weighing each unit separately as a single draft, and adding together the results. Multiple draft method is not permitted, except when authorized in writing by the State Sealer.

NOTE: The separate regulations relating to multiple draft weighing are available from the Division of Regulations, Maine Department of Agriculture, Food and Rural Resources.

(b) Load weight. The weight of the load shall be computed as follows:

- (i) Determine the loaded vehicle weight by weighing the loaded vehicle.
 - (ii) Determine the tare weight by weighing the vehicle and any foreign matter and culled wood. Separately indicate the actual or a reasonable estimate of the weight of the culled wood.
 - (iii) Subtract the tare weight from the loaded vehicle weight. The result is the load weight, which is the gross scale of the wood.
- (c) Dry weight based on oven-dried weight,
- (i) Compute the load weight according to paragraph (b) above.
 - (ii) Weigh the representative sample.
 - (iii) Oven dry the sample.
 - (iv) Weigh the oven-dried sample.
 - (v) Compute the percent moisture content.
 - (vi) Subtract the percent moisture content from 100%.
 - (vii) Apply the resulting percent to the load weight. The result is the oven-dried load weight, which is the gross scale of the wood, dry weight.
- (d) Dry weight using the infra-red moisture determination method or an alternative method of moisture analysis,
- (i) Compute the load weight according to paragraph (b) above.
 - (ii) Compute the percentage of moisture content using the infra-red moisture determination method, or by an alternative method that has been authorized by the State Sealer.
 - (iii) Apply the resulting percentage to the load weight. The result is the dry weight of the load.

4. Net scale - discounting.

(a) Where payment is made for services, taking deductions from gross scale is prohibited.

(b) In the sale of wood, when weight scale is used, taking deductions from gross scale is prohibited except under the following conditions:

(i) The parties have submitted to the State Sealer a proposed method of calculating net scale deductions along with documentation that the proposed method accurately determines the amount of the defect and that the proposed method affords traceable measurement standards. The State Sealer may require further information including a demonstration of the proposed method.

(ii) The State Sealer has approved the method of calculating the deductions based on the following criteria:

AA The method accurately determines the proportional amount of defect;

BB The method affords traceable measurement standards;

CC In the wood quality specifications the method of defect deduction is stated for all relevant defects.

(iii) The approval of the State Sealer shall be for a designated period of time, and in no case for longer than one year.

(iv) The approval of the State Sealer may be rescinded at any time the State Sealer finds the required criteria are not being met.

5. Marking. Mark any culled stem or piece in an easily visible and distinct manner.

6. Culled Wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.

7. Declaration of quantity.

(a) Where the method of measuring is weight scale, the quantity shall be represented in one thousand pound units, Tholbs, or in tons (two thousand pounds).

NOTE: The weight may not be represented in other than one thousand pound units or tons.

(b) A notation shall be added indicating the weight is represented as the dry weight. The abbreviation o.d. may be used when the oven-dried method was used.

8. Tally. The requirements for the measurement tally sheet are set forth in Chapter 383.

K. Sample Scaling

1. General description. Sample scaling is the method of wood measurement where wood is count or weight scaled and a sample of that wood is then measured by another measurement system. The sample is then expanded by the total count or weight to determine the final scale.

Subject to the limitations imposed by Section 3 (b) of this Section, below, application's of sample scaling must incorporate two of the measurement systems described in Sections A through J of this Section 6 and include, but are not limited to the following methods:

- a.) counting all stems, then butt measuring a representative sample to determine either diameter count or cumulative sum;
- b.) counting all logs, then gross log scaling a representative sample; or
- c.) counting or weighing all stems, then butt scaling a representative sample to determine volume.

2. Use of Sample Scaling Method.

- (a) Approved use. When agreed upon by the parties in a sale transaction, sample scaling may be used to measure wood in any wood form, provided the proposed method has been approved in advance and in writing by the State Sealer.
- (b) Prohibited use. Payment for services. The use of sample scaling is prohibited in any payment for services transaction. Likewise calculation of quantity based on sample scaling may not be used as the basis for payment of persons providing services.

3. Measurement procedure for gross scale.

- (a) the use of sample scaling requires:
 - (i) counting or weighing all stems,
 - (ii) randomly selecting a representative sample that meets or exceeds in size the requirements of any statistical sampling formula, method or procedure to which the parties agree,
 - (iii) determining the average scale for the measurement of wood for the total quantity in question, and
 - (iv) expanding by the count or weight of the total quantity of wood being sample scaled.
- (b) Use of authorized systems of measurement. The use of sample scaling also requires that two of the other ten authorized systems of scaling are used in combination. Only authorized systems of measurement for the particular wood production form involved may be used. See this Section 6, subsections A through J, for requirements for the use of other systems and for the proper procedures for the other systems and for the proper procedures for the other systems.

4. Advance approval from the State Sealer.

- (a) Any person proposing to use a Sample Scaling method must send a written request to the State Sealer seeking a permit to do so, and supplying the information necessary for the State Sealer to determine whether to issue the authorization. An applicant must furnish the following information:
- (i) the names and addresses of all parties involved in the sale transaction;
 - (ii) the location(s) where sample scaling will be carried out; the period during which sample scaling will be used;
 - (iii) the measurement standards upon which the sample scaling is based along with any supporting data;
 - (iv) a statement signed by the parties setting forth the agreed upon sample scaling measurement procedures, including the method of selecting a representative sample;
 - (v) any additional information requested by the State Sealer relevant to the review of the request.
- (b) The State Sealer shall approve all requests and issue a permit for sample scaling, provided:
- (i) The method of sample scaling is reasonable and is based on a randomly selected representative sample that meets or exceeds in size the requirements of any statistical sampling formula, method or procedure which the parties have agreed in writing to use.
 - (ii) The proposed use of sample scaling is consistent with the other requirements of this Section, as well as with all other applicable provisions of these rules.

- (c) The State Sealer may attach reasonable conditions to any authorization, either at the time of authorization or following any inspection of the use of the sample scaling. The conditions imposed may include, but are not limited to, modifying the measurement procedures, expanding the size of the sample, modifying or adding to the record keeping or reporting systems.
5. Gross scale - deductions. In all wood transactions in which sample scaling is used, taking deductions is prohibited.
 6. Marking. Mark all wood according to the marking requirements for the particular systems of measurement employed in the sample scaling.
 7. Culled wood. Any stem or piece that is culled shall be handled as provided for in Chapter 381.
 8. Declaration of quantity. When sample scaling is used, the quantity of wood shall be expressed in the appropriate unit for the systems of measurement employed.
 9. Tally. The measurement tally sheet requirements for the sample scaling are those required for the two other systems of measurement employed. The measurement tally sheet requirements for the other systems of measurement are set forth in Section 2(d) of Chapter 383, at pages 383-5 to 383-6. All cumulative tally sheets shall also include:
 - (a) the average scale of the applicable representative sample;
 - (b) the count or weight of the total quantity of wood being sample scaled; and
 - (c) for purposes of identification, a reference description of the wood being sample scaled, by location or otherwise.

AUTHORITY: 10 M.R.S.A. §2361-A et seq.

EFFECTIVE DATE: April 30, 1985

AMENDMENTS EFFECTIVE: July 30, 1986; July 27, 1987

STATUTORY AUTHORITY: 10 M.R.S.A. Section 2367 P.L. 1984

AMENDMENT EFFECTIVE: September 6, 1988

01 DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCE

001 DIVISION OF REGULATIONS

CHAPTER 383 MEASUREMENT AND PROMPT FURNISHING OF MEASUREMENT TALLY SHEETS

SUMMARY: This chapter of the Wood Measurement Rules establishes the requirements for measurement tally sheets and their distribution, and includes the general requirements for prompt measurement.

SECTION 1: MEASUREMENT AND PROMPT FURNISHING OF MEASUREMENT TALLY SHEETS REQUIRED.....1

SECTION 2: CONTENTS OF MEASUREMENT TALLY SHEETS IN PAYMENT FOR SERVICES AND SALE TRANSACTIONS.....3

SECTION 3: OFF-SITE MEASUREMENT: PRELIMINARY RECORD REQUIRED WHERE PAYMENT IS MADE FOR SERVICES HARVESTING WOOD.....8

SECTION 4: MEASUREMENT TALLY SHEETS WHERE PRIVILEGE TO MEASURE WOOD OUT OF STATE HAS BEEN SUSPENDED.....9

SECTION 1. MEASUREMENT AND PROMPT FURNISHING OF MEASUREMENT TALLY SHEET REQUIRED

A. Payment for services.

NOTE: These Rules shall not be read to undermine or otherwise interfere with the right to prompt payment of wages in the case of employees under the Maine Labor Laws. See 26 M.R.S.A. §621, "Time of payment" (requiring payment within 8 days) and §626 "Cessation of employment".

1. General Rule. The person requiring the services in harvesting or hauling shall measure the wood and promptly furnish to the person providing services a completed measurement tally sheet. In payment for services, to measure wood and "promptly" furnish the completed tally sheet means to measure the wood and furnish the tally sheet within 15 days after the services in harvesting or hauling were rendered.

(a) Weight scale exception for harvesting wood. Where the wood will not be weighed within 15 days of when services in harvestings were rendered, the person providing the services may require an alternative method of measurement or may agree to delayed weight scale as permitted under the "green wood rule", Chapter 382, section 6(J)(2-A).

(b) Delayed weight scale record. When wood is weighed later than 15 days after the services were rendered, the person requiring the services shall prepare a written record of the wood involved. The written record shall be given to the person providing the services in harvesting no later than 20 days from when the services were rendered and shall include the following information:

(i) the date;

(ii) the identity of the person or persons providing services in harvesting the wood by name or crew number;

(iii) a description of the wood in sufficient detail for the person providing services to identify it, as by location and pile number;

(iv) the location where the wood is expected to be measured;

(v) the date by which the wood will be measured; and

(vi) the percentage adjustment that the parties have agreed upon to account for any anticipated moisture (weight) loss.

2. Preparation of measurement tally sheet. The person who measured the wood, or the assisting tally person, shall enter the general information required on the tally sheet at the time the wood is measured. See Section 2(A), below.

3. Immediate availability of tally sheet. From the time the wood is measured until the measurement tally sheet is furnished, the person requiring the services shall make the measurement tally sheet available to the person providing the services at a reasonable location.

B. Sale Transaction.

1. General Rule. In the case of sale, the party responsible for measuring the wood shall promptly measure the wood and furnish to the other party a completed measurement tally sheet. In a sale to measure and promptly furnish the measurement tally sheet means to measure the wood and furnish the tally sheet within 15 days of delivery of the wood to the purchaser, unless another time period is provided in the agreement of the parties.

2. Preparation of Measurement Tally Sheets. The person who measures the wood, or the assisting tally person, shall enter the general information required on the tally sheet. See section 2(A), below.

SECTION 2. CONTENTS OF MEASUREMENT TALLY SHEET IN PAYMENT FOR SERVICES AND SALE TRANSACTIONS

NOTE: Sample tally sheets are available upon request from the State Sealer.

A. General Information Required. All measurement tally sheets must include the following information:

1. Parties identified: Identification of the parties.
2. Wood identified: A description of the wood in sufficient detail for the parties to identify it. This may be by species, pile number, load number, location of origin, or otherwise. In the case of delayed weight scale, identify the written record of the wood involved, by date or otherwise.
3. Date: The date the wood was measured.
4. System: The system of measurement used.
5. Marking: Where marking is required, the color of the marker used to mark the measured wood, and how culled pieces will be marked.
6. Scaler. The handwritten or stamped signature and license number of the scaler who measured the wood, or the signature of any other person who measured the wood and the name and license number of the supervising or authorizing scaler.

7. Scaling measurements. The scaling measurements of the wood measured, as required for the measurement system utilized. Set forth below in subsection D is the specific information for each measurement system.

(a) In the case of payment for services, the scaling measurements must be included on the Measurement Tally Sheet.

(b) In the case of a sale, this requirement to provide the scaling measurements may be omitted by agreement of the parties.

8. Culled wood.

(a) The number of culled stems or pieces and the reason for culling.

(b) In the case of payment for services, where the wood is removed from the harvesting site, the actual measurement of the culled wood or a reasonable estimate of the measurement of the culled wood.

9. Gross scale and deductions for each unit measured. The gross scale and the amount of any permissible deductions from the gross scale for each unit measured indicating the reason for the deductions. The reason for the deductions may be provided by way of a code or other system of identification. (Reference should be made to chapter 381 to determine when deductions from gross scale are permissible.)

B. Supplemental information for off-site measurement. In the case of payment for services harvesting wood where the wood is measured after it is removed from the harvesting area (off-site measurement), the following information shall be added to the measurement tally sheet by the person measuring the wood or the person requiring the services:

1. For mixed loads, the total quantity measured and the allocation among the persons providing services; and

2. Information which enables the person providing services harvesting the wood to relate the measurement tally sheet to the corresponding preliminary record or records for the wood.

C. Cumulative total. If a cumulative total of gross scale, and where appropriate, of net scale, were not included on the individual tally sheets: then

1. The cumulative total or totals shall be provided on a final tally or within 15 days after the wood was measured or hauled, but no later than at the time of payment for the wood.
2. The final tally shall identify all related measurement tally sheets by number or otherwise.

D. Scaling measurements for each measurement system. For each measurement system, the following scaling measurements shall be set forth on the measurement tally sheet:

1. Butt measure.

The measured diameter of each piece or the diameter class of each piece

2. Count.

The number of pieces, by species or other groupings.

3. Butt scale.

The measured diameter of each stem according to the butt diameter size.

4. Stick cord scale.

- (a) The width of the stack;
- (b) Height and length of the pile; and
- (c) The amount of any quantity reductions for voids.

5. Log scale.

The measured length or top end diameter of each log.

6. Linear measure.

The length of each stem or piece, individually or by length groupings.

7. Cubic foot measure.

The top end and butt end diameters and the length of each stem or piece.

8. Chip volume scale.
- (a) The total volume of chips in cubic feet or chipcords; and
 - (b) In the case of a mixed load, how the load is allocated between the persons or crews involved.
9. Thrown cord scale.
- (a) The specified length of the bolts: 12, 16, or 24 inches;
 - (b) The total cubic footage of the filled containers and any partially filled containers.
10. Weight scale.
- (a) For wood not weighed as oven-dried:
 - (i) the loaded vehicle weight;
 - (ii) the tare weight (weight of vehicle and any foreign matter or culled wood); and
 - (iii) the load weight.
 - (b) For wood weighed as oven-dried where a representative sample is used:
 - (i) the loaded vehicle weight;
 - (ii) the tare weight (weight of vehicle and any foreign matter or culled wood);
 - (iii) the load weight;
 - (iv) the weight of the sample before drying;
 - (v) the weight of the sample after drying;
 - (vi) the percentage moisture content; and
 - (vii) the result of the percentage moisture content applied to the load weight.

11. Sample Scaling. The measurement tally sheet requirements for sample scaling are those required for the two other systems of measurement employed. The measurement tally sheet requirements for the other systems of measurement are set forth above. All cumulative tally sheets shall also include:

- (a) the average scale of the applicable representative sample;
- (b) the count or weight of the total quantity of wood being sample scaled; and
- (c) for purposes of identification, a reference description of the wood being sample scaled, by location or otherwise.

STATUTORY AUTHORITY: 10 M.R.S.A. Section 2367 P.L. 1984

AMENDMENT EFFECTIVE: September 6, 1988

SECTION 3: OFF-SITE MEASUREMENT: PRELIMINARY RECORD WHERE PAYMENT IS MADE FOR SERVICES HARVESTING WOOD

A. Preliminary Record Required. When wood will be measured after it is removed from the harvesting area, persons requiring services harvesting wood shall make a cumulative daily record of all loads of wood removed from the harvesting area, numbering in consecutive order each load removed.

B. Responsibility for Preliminary Record. The person requiring the service is responsible for preparing and making the preliminary record available. This responsibility may be carried out by another person provided that other person is in a position to maintain a daily cumulative record of all loads of wood hauled. Preparation of the preliminary record may not be delegated to persons who are not in a position to maintain a daily cumulative record of all loads of wood hauled.

NOTE: For example, persons who ordinarily prepare the preliminary record are the logging service contractor, or the crane operator who loads the wood.

C. Contents of Preliminary Record. The record must include the following information for each load of wood removed:

1. the date;
2. the load number;
3. the identity of the person or persons providing services in harvesting the wood by name or crew number;
4. a description of wood in each load, in sufficient detail for the person providing services to identify it, as by location and pile number
5. the location where the wood will be measured.

NOTE: Examples of a preliminary record are a clipboard list by consecutive load numbers or consecutively numbered trucking slips.

D. Availability of preliminary record. The preliminary record must be retained by the person requiring services and must be made available to the person providing services at the harvesting site on the day the wood is removed, and

thereafter at a reasonable location designated by the person requiring services, and must remain available to the person providing services until 15 days after the related measurement tally sheet has been delivered to him.

SECTION 4. MEASUREMENT TALLY SHEETS WHERE PRIVILEGE TO MEASURE WOOD OUT OF STATE HAS BEEN SUSPENDED

During the period of time that an order suspending the privilege to measure wood outside of the state (as described in Chapter 381, section 7) is in effect, the person requiring services to whom the order is directed must furnish any person providing services with a measurement tally sheet prior to hauling the wood out of state, and in accordance with the general requirements set forth in this chapter.

AUTHORITY: 10 M.R.S.A. §2361-A et seq.

EFFECTIVE DATE: April 30, 1985

AMENDMENT EFFECTIVE: July 30, 1986

01 DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES
001 DIVISION OF REGULATIONS

CHAPTER 384 WOOD MEASUREMENT RULES - COMPLAINTS AND INVESTIGATIONS

SUMMARY: This chapter of the Wood Measurement Rules establishes procedures for filing complaints relating to violations of the Wood Measurement Law and these Wood Measurement Rules and for the handling of those complaints by the State Sealer, including investigation and check measurement. Also included are provisions dealing with investigations and check measurements on the State Sealer's own initiative.

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SECTION 1. FILING OF WOOD MEASUREMENT COMPLAINTS

NOTE: A sample wood measurement complaint is in the appendix, page A-19.

A. Who may file a complaint. Any person who believes that he has been aggrieved by a violation of the Wood Measurement Law or these Wood Measurement Rules may file a complaint with the State Sealer. The address and phone number of the State Sealer are:

State Sealer
Department of Agriculture, Food and Rural Resources
Division of Regulations
State House Station #28
Augusta, ME 04333
(207) 289-3841 (From 7:30 A.M. to 5:00 P.M. weekdays
this number will be answered.)

B. Form of complaint. The complaint may be made either orally or in writing. If the complaint is made orally:

1. The State Sealer shall prepare a written complaint.
2. The State Sealer may also require that the complainant submit his complaint in writing, postmarked no later than 5 days after the date of the oral complaint.

C. Contents of complaint.

1. Whether oral or written, the complaint shall contain, at minimum, the name, address, and phone number of the complainant and any other person on behalf of whom the complaint is filed and a brief statement of the facts surrounding the alleged violation.
2. If known, the complaint shall also contain the following information, except that if any of the information is not included or is later found to be in error a timely complaint will not be deemed invalid:

(a) The name and address of the other party to the wood transaction;

(b) The name and address of the person who measured the wood;

(c) The name and address of any other person whose conduct is also complained of;

(d) The name, address, and phone number of the owner of the stumpage;

(e) The date the complainant discovered the alleged violation or violations;

(f) If relevant, location and description of the wood in enough detail to identify the wood;

(g) If relevant, whether the person in possession or control of the wood has been notified to hold the wood and, if so, the date that notification was made.

SECTION 2. STATE SEALER'S DETERMINATION OF TYPE OF COMPLAINT AND OF RESPONDENT

Upon receipt of a complaint, the State Sealer shall determine whether the complaint is for disputed wood, or whether it is a general complaint.

A. Disputed wood complaints. Whenever the alleged violation is that specific wood was inaccurately measured, the complaint is for disputed wood.

B. General complaints. Any complaint which alleges any other type of violation is a general complaint. Examples of general complaints are:

1. Conversion from weight scale to another system of measurement for purposes of computing payment or price;
2. Use of an unauthorized system of measurement or improper use of an authorized system;
3. The taking of deductions for scaling defects where payment is made for services;
4. Refusal to measure wood that was designated to be harvested and yarded and was prepared as directed;
5. Failure to promptly furnish a measurement tally sheet; or
6. Non-compliance with licensing requirements.

C. Complaints alleging more than one violation. Whenever a complainant alleges more than one violation, the State Sealer shall separately consider and handle each of the alleged violations.

D. Determination of respondent to the complaint.

1. In addition to the other party to the transaction, the State Sealer, based on the nature of the complaint, may name as a respondent any other party or person who may have participated in the alleged violation.

2. Following the investigation, the State Sealer, based on the information obtained during the course of the investigation, may name additional respondents.

SECTION 3. TIME REQUIREMENTS FOR FILING COMPLAINTS

A. Disputed wood complaints. A complaint that specific wood has been inaccurately measured shall be made within 15 days from the date on which the complainant discovered the alleged inaccurate measurement of the wood.

B. General complaints. A complaint other than a disputed wood complaint shall be made within a reasonable time after the complainant discovers the alleged violation, as determined by the State Sealer.

C. Consequences of filing a disputed wood complaint more than 15 days after discovery of the inaccurate measurement of the wood.

1. Whenever the State Sealer receives a complaint that is for the inaccurate measurement of specific wood and the State Sealer determines that the complaint was made more than 15 days from the date of discovery of the alleged violation, the State Sealer shall notify the complainant that no investigation of the complaint will be made, stating:

(a) That the State Sealer has reasonable grounds to believe the complaint was not timely filed and stating the reasons for that belief;

(b) That the private right of action afforded under the Wood Measurement Law (10 M.R.S.A. §2368(2)) is not available to an aggrieved party in the case of an untimely complaint for disputed wood; and

(c) That the unavailability of a remedy under the Wood Measurement Law does not modify any contract rights or other remedies under law that may be available to the aggrieved party.

2. The notice that no investigation of the complaint will be made shall be sent to the complainant by certified mail. . The notice will not be sent to any other person, except that if the person in possession or control of the wood was given a notice to hold wood or an impoundment order was issued, then the person in possession or control of the wood and any other party to the wood transaction shall also be notified in writing that the complaint has been dismissed.

SECTION 4. ADDITIONAL PROCEDURES RELATING TO DISPUTED WOOD COMPLAINTS

A. Notice to hold wood.

1. Notice by complainant. The complainant may, if he chooses, give notice to the person with possession or control of the wood to which the alleged violation relates that a complaint has been or will be filed and that he wants the wood to be held. The notice is effective if the wood can be separately identified at the time the notice is received. Notice to hold wood may be oral or written.

2. Notice given before complaint filed. If the complainant gives notice to the person with possession or control of the wood before he files the complaint, he must file the complaint on or before the 4th day after the day on which he gives that notice, but in no case later than 15 days from the date of discovery of the alleged violation.

3. Effect of notice. If the complainant gives notice to the person with possession or control of the wood that a complaint has been or will be filed, that person may not thereafter cause or allow the wood, if it can be separately identified, to be removed, cut, or otherwise processed so that it can no longer be separately identified and check measured, until permitted to do so by an order of the State Sealer.

(a) However, if the person with possession or control of the wood does not receive an order impounding the wood from the State Sealer within 12

days after receiving the notice to hold wood from the complainant, he may, after the 12th day, remove, cut, or otherwise process the wood.

(b) The person with possession or control of the wood may move the wood, provided the following requirements are met:

(i) He must maintain the form of the wood and its separate identity.

(ii) He may move it only once and only to a place at which it is no less convenient for the State Sealer to check measure or otherwise investigate the wood.

(iii) At that time the wood is moved, he must inform the complainant and the State Sealer of the location to which the wood will be moved. He may inform them orally or in writing, but if he does so orally the State Sealer may require that he also provide the information in writing.

(iv) The wood may not be moved again unless written prior permission is obtained from the State Sealer.

(c) Upon receipt from a complainant of a notice to hold wood, the person in possession or control of the wood may himself contact the State Sealer. If notification from the person in possession or control of the wood is received before the complaint is filed, the State Sealer may not investigate until the complaint is made.

B. Impoundment of disputed wood. Within 4 days of receipt of a complaint alleging that specific wood was inaccurately measured and stating that a notice to hold wood was given, the State Sealer may issue an order impounding the wood, as provided in subsection 5. However, if the State Sealer issues an impoundment order later than 4 days after receipt of the complaint, the order is still valid, provided the wood can be separately identified.

SECTION 5. IMPOUNDMENT OF WOOD

A. Authority. Whenever the State Sealer believes that a violation of these Wood Measurement Rules may have occurred and that impoundment of wood is reasonably necessary for the furtherance of the investigation, the State Sealer may issue an order impounding wood.

B. Impoundment order. To impound wood, the State Sealer shall issue an order to the person with possession or control of the wood, identifying the wood to be impounded and ordering the person not to remove, cut, or otherwise process the impounded wood until he is permitted to do so by further order of the State Sealer.

1. An impoundment order may be given either orally or in writing.

2. If the impoundment order is given orally, within 4 days of giving the oral order the State Sealer shall send a written order by certified mail to the person with possession or control of the wood.

3. The State Sealer shall send a copy of any written impoundment order to the parties to the wood transaction, if known.

C. Release of impounded wood.

1. Upon completion of the check measurement or other examination of the wood, the State Sealer shall issue:

(a) An order releasing any wood impounded in the investigation; or

(b) An order continuing the impoundment, if he determines that further investigation is likely and that continued impoundment is therefore reasonably necessary.

2. At the time the State Sealer issues his determination and findings under section 12, he shall release any wood impounded in the investigation and not yet released. However, if the State Sealer determines that continued impoundment is necessary, he may apply to the court for an order continuing the impoundment and the State Sealer's impoundment order remains in effect until the application to the court is granted or denied.

SECTION 6. NOTIFICATION TO RESPONDENTS

A. Notification required.

1. Disputed wood complaint. Following issuance of an impoundment order, and no later than the date of check measurement, the State Sealer shall furnish the respondents to the complaint with a statement of the alleged inaccurate measurement. If no wood is impounded or check measured, the State Sealer shall furnish the respondents with a statement of the alleged inaccurate measurement within 10 days of receipt of the complaint.

2. General complaint. The State Sealer shall furnish the respondents with a statement of the alleged violation within 10 days of receipt of the complaint and in no case later than the date a check measurement is undertaken.

3. Spot checks. Whenever the State Sealer conducts a spot check of the measurement of wood, and regardless whether the spot check is in response to a complaint, the State Sealer is not required to provide notice to the person with possession or control of the wood in advance of the date of the check measurement.

B. Disclosure of complainant.

During the investigation of any complaint, the State Sealer shall not reveal the name of the complainant, except where reasonably necessary for the furtherance of the investigation and after obtaining consent from the complainant.

C. Method of notification. The State Sealer shall notify the respondents in writing of the alleged violation, and this notification shall be made by certified mail postmarked no later than the date the State Sealer is required to furnish the notification.

SECTION 7. INVESTIGATION OF DISPUTED WOOD COMPLAINTS

A. Investigation required. Upon timely receipt of a complaint for disputed wood, the State Sealer shall investigate the complaint.

B. Methods of investigation. As part of the investigation the State Sealer may:

1. Subpoena such witnesses and documents as may be necessary for the furtherance of the investigation;
2. Cause the disputed wood to be impounded, in accordance with section 5, if it can be separately identified;
3. Conduct a check measurement of the wood in accordance with section 9;
4. Engage in informal fact-finding meetings and interviews with the complainant, the respondent, and any other person whose statement may provide information or evidence;
5. Use such other methods that are reasonably necessary for the furtherance of the investigation.

SECTION 8. INVESTIGATION OF GENERAL COMPLAINTS

Whenever a general complaint is filed and the State Sealer determines that a violation may have occurred, he shall conduct an investigation of the complaint which may include any of the procedures or methods provided for in section 7, except that if the State Sealer determines that impoundment is reasonably necessary for the furtherance of the investigation, he shall impound only where the wood can be separately identified and he may impound wood no more than 24 hours in advance of examining the wood in question.

SECTION 9. CHECK MEASUREMENT

A. Licensed wood scaler required. Whenever a check measurement is conducted, the State Sealer shall cause the check measurement to be performed by a wood scaler who is licensed to use the system of measurement involved, in accordance with Chapter 384 of these Wood Measurement Rules, and who is either a State employee or a person under contract to the State.

B. Check measurement procedures.

1. System of measurement. The State Sealer shall check measure the wood using the same system of measurement that was used or will be used to measure the wood, provided the method is authorized for the wood production form involved.

2. Method of measurement. The State Sealer shall conduct the check measurement according to the procedures set forth in Chapter 382. When a check measurement involves the use of butt scale, the provisions of subparagraph (a) shall also apply. When a check measurement involves a determination of moisture content of stems or pieces, the determination shall be made according to subparagraph (b).

(a) Butt scale check measurement.

(i) The State Sealer shall measure the cubic volume of the wood by computing the cubic volume either of each individual stem, or of each individual stem in a representative sample, as the State Sealer determines to be appropriate, and adding together the individual cubic volumes. If the State Sealer chooses to use a representative sample, he shall select the individual stems which shall constitute the sample. When the check measurement is made in the investigation of a disputed wood complaint, the sample shall be representative of the stems the measurement of which is in dispute. In other investigations, the sample shall be representative of the wood involved in the investigation.

(ii) The cubic volume of individual stems shall be conducted as follows:

AA. Diameters shall be measured at the butt end, at two feet from the butt, at four feet from the butt, and at four foot intervals to the top. The length of the top segment, if less than four feet, shall be measured to the nearest one-tenth foot. Diameter measurements shall be taken outside the bark, except that inside bark measurements or volumes may be used where the wood quality specifications state that the factor used to convert cubic feet to standard cords is based on inside bark measurement or on inside bark volumes.

BB. Unless an alternative formula been authorized by the State Sealer, the cubic foot content of each segment will be computed by means of the formula:

$$V = \frac{(A + a)}{2} \times L$$

where V is the volume, in cubic feet, of the stem segment, A is the area in square feet of the large end, a is the area in square feet of the small end of the stems segment, and L is the length of the segment measured. The total cubic foot content of the separate segments shall be added together to compute the cubic foot content of the stem.

CC. Where the volume is represented in standard cords, the following conversion factors shall be used:

softwood - 85 cubic feet of wood including bark equals one standard cord,

hardwood - 80 cubic feet of wood including bark equals one standard cord,

except that where the parties have agreed to an alternative reasonable and appropriate conversion factor and that conversion factor is set forth in the wood quality specifications, then, this alternative factor shall be used to calculate the number of standard cords.

(b) Moisture content determination. Whenever a determination of the moisture content of stems or pieces is required, the check measurement shall be conducted as follows:

(i) The State Sealer shall make his selection of sample points on a random basis, first selecting a minimum of ten stems or pieces and then selecting a specific sampling point on each stem. In cases where the removal of a sample disc would ruin a stem or piece for processing purposes, the sample point will be moved to the nearest end of the shortest standard length specified for the production form involved.

(ii) The samples will immediately be placed in a moisture proof bag. The bag shall be sealed after excluding excess air and a tag shall be attached giving the following information: Sample number, date sample taken, species of wood in the load, gross weight, tare weight, name of seller and buyer or name of person requiring services and person providing services, point of delivery, and name of person selecting and taking the sample discs. Samples will be stored in a cool, dark place until they are tested.

(iii) The State Sealer will determine the weight of the sample prior to drying and its oven-dry weight. He will then compute the percent moisture content using the formula:

$$\text{M.C.\%} = \frac{\text{Wgt. with moisture} - \text{Wgt. oven dried}}{\text{Wgt. oven dried}} \times 100$$

C. Tolerance for error.

1. Acceptable tolerances. Whenever a check measurement is conducted, the measurement of wood shall not be deemed to be inaccurate where the quantity computed on check measurement is within + 4% of that computed in the measurement of the wood.

2. Error within acceptable tolerance. Where the deviation is within the acceptable range of tolerance, the State Sealer may in any event require that any measuring equipment, volume tables, or methods of measurement be adjusted to have a value or give a performance closer to zero error.

SECTION 10. INVESTIGATIONS AND CHECK MEASUREMENT ON THE STATE SEALER'S INITIATIVE

The State Sealer may, on his own initiative and without any complaint, conduct such investigations and check measurements as he deems necessary to verify and ensure compliance with the requirements of the Wood Measurement Law and these Wood Measurement Rules.

A. Notice not required. The State Sealer is not required to give notice to any person before undertaking an investigation or check measurement on his own initiative.

B. Check measurement procedures. Check measurements conducted under this section shall be performed in accordance with section 9.

C. State Sealer's powers. At any time during or after an investigation or check measurement under this section, the State Sealer may:

1. Notify any person whose interests may be affected by the matter investigated or the check measurement;
2. Invite persons whose interests may be affected to meet to discuss the matter investigated or the check measurement.

D. Violations. Whenever, as a result of such an investigation or check measurement, the State Sealer has reason to believe that a violation of the Wood Measurement Rules has occurred, the State Sealer may issue preliminary findings and a determination and written findings as set forth in sections 11 and 12.

SECTION 11. PRELIMINARY FINDINGS AND OPPORTUNITY FOR WRITTEN RESPONSE

A. Preliminary findings. Within 20 days of the filing of the complaint, the State Sealer shall send a copy of his preliminary factual findings to the complainant and respondents by certified mail, except that if the State Sealer cannot issue the findings within 20 days, he shall so advise the complainant and respondent in writing and shall state the date by which he expects to be able to issue them.

B. Opportunity for written response. Upon receipt of the preliminary findings the complainant and respondents shall have an opportunity to file a written response with the State Sealer, setting forth specific items of disagreement and grounds for the disagreement.

1. The written response must be received by the State Sealer no later than 10 days after receipt of the preliminary findings. Any extension shall be permitted only where agreed upon by both the complainant and the respondents.

2. The State Sealer shall only consider items of disagreement that are submitted in writing and which address:

(a) Relevant factual errors;

(b) Relevant omissions of facts; or

(c) Relevant issues and questions concerning interpretations of law.

3. The State Sealer shall mail a copy of any response received to the other parties to the complaint.

4. The State Sealer is not required to permit the other parties to a complaint the opportunity to rebut any written response, except where, as a result of the response, the State Sealer amends or reverses his preliminary findings.

C. Amended or reversed preliminary findings. If, as a result of a written response, the State Sealer amends or reverses his preliminary findings, the revised preliminary findings are again subject to the requirements of subsection A and B relating to the opportunity for written responses.

SECTION 12. STATE SEALER'S DETERMINATION AND WRITTEN FINDINGS

A. Determination and written findings required.

After considering the results of the investigation and any written response to preliminary findings, the State Sealer shall make and issue a determination whether there are reasonable grounds to believe a violation has occurred. The determination shall be accompanied by a written statement of findings.

B. Contents of determination and findings. The determination and findings of the State Sealer shall include:

1. A brief description of the alleged violation;

2. The results of the investigation and a summary of the evidence relied upon; and

3. Determinations reached on the allegations in the complaint.

C. Mailing of determination and findings. The State Sealer shall send a copy of the determination and findings by certified mail to:

1. The complainant;

2. The other parties to the wood transaction;

3. The person who measured the wood;

4. Any other person whose conduct was complained of;

5. If known, the owner of the stumpage of the wood to which the complaint relates, if other than one of the above named persons.

D. Accompanying notice required. The State Sealer shall send, with the written findings, a notice which shall indicate what further action will be taken, if any, and which shall state that:

1. A determination that a violation of the Wood Measurement Law or these Wood Measurement Rules occurred is not binding upon the parties except by order of a court of law. Regardless of the determination, the State Sealer has no power to order adjustments in payment to be made.

2. The State Sealer is authorized to apply to any court of competent jurisdiction for a temporary or permanent injunction restraining any person from violating any provision of the Wood Measurement Law or these Wood Measurement Rules.

3. A violation of the Wood Measurement Law or these Wood Measurement Rules is punishable by the civil penalties of a fine not to exceed \$1,000 for the first offense and \$2,000 for each subsequent offense and that these civil penalties may be recovered by the State Sealer on behalf of the State in a civil action.

4. The complainant has a right to bring a civil action for damages against any person who has violated any provision of the Wood Measurement Law or of these Wood Measurement Rules and that the civil action for damages may be brought by either the aggrieved party or, at the request of the State Sealer, by the Attorney General.

5. A judgment in favor of a complainant in an action brought to recover damages may include, in addition to the actual damages adjudged to be due, a reasonable rate of interest, an additional amount as liquidated damages equal to twice the amount of actual damages, and costs of suit including a reasonable attorney's fee.

6. Both the District Court and the Superior Court have jurisdiction of cases under the Wood Measurement Law and these Wood Measurement Rules, depending on the nature of the case and the remedy sought.

E. Time requirements for determination and findings.

1. No written responses submitted. Where no written responses were filed under subsection B, the State Sealer shall issue the determination and findings within 15 days of issuance of the preliminary findings, except that if the State Sealer cannot issue the determination and findings within 15 days, he shall so advise the complainant and respondent in writing and shall state the date by which he expects to be able to issue them.

2. Written response submitted. Where a written response was filed under subsection B, the State Sealer shall issue the determination and findings, or the amended or reversed preliminary findings, as the case may be, within 20 days of receipt of the written response, except that if the State Sealer cannot issue the determination and findings of the amended or reversed preliminary findings within 20 days, he shall so advise the complainant and respondent in writing and shall state the date by which he expects to be able to issue them.

SECTION 13. INFORMAL RESOLUTION OF DISPUTE

Throughout the complaint procedures, the State Sealer may assist the parties in reaching a voluntary resolution of the wood measurement dispute, including settlement of any payment alleged due.

SECTION 14. ADDITIONAL CONSEQUENCES OF FAILURE TO FURNISH PROPER MEASUREMENT TALLY SHEET OR FAILURE TO OBEY AN IMPOUNDMENT ORDER OR A NOTICE TO HOLD WOOD

A. Separate Violation. A person with possession or control of wood who received an impoundment order or a notice to hold wood, regardless of whether he is one of the persons whose conduct is complained of, is in violation of these Wood Measurement Rules if he causes or allows the wood to be removed, cut or otherwise processed such that it can no longer be separately identified.

B. Presumption of Violations.

1. Underscaling. Where a person whose conduct is complained of for underscaling has not furnished a completed measurement tally sheet as required in Chapter 383, he shall be presumed by the State Sealer to have committed the violation of underscaling. The person whose conduct is complained of may offer evidence to rebut the presumption.

2. Presumption of alleged violation. Where in conjunction with an investigation of an alleged violation, a person has failed to obey an impoundment order or a notice to hold wood, the State Sealer shall presume that the person has committed the alleged violation. The person whose conduct is complained of may offer evidence to rebut the presumption.

AUTHORITY: 10 M.R.S.A. §2361-App et seq.

EFFECTIVE DATE: April 30, 1985

AMENDMENT EFFECTIVE: July 30, 1986

01 DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES
001 DIVISION OF REGULATIONS

CHAPTER 385 LICENSING OF WOOD SCALERS

SUMMARY: This chapter of the Wood Measurement Rules establishes requirements and procedures for the licensing of wood scalers and apprentice wood scalers; provides for temporary authorization for a substitute to scale when a licensed wood scaler is unavailable; and establishes authority and procedures for investigations to ensure compliance with licensing requirements.

SECTION 1: GENERAL PROVISIONS.....1
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LICENSING REQUIREMENTS.....9

SECTION 1. GENERAL PROVISIONS

A. License required. No person may measure wood in a wood transaction covered by these Wood Measurement Rules in which his measurement will form the basis for payment, unless that person is licensed to do so in accordance with this chapter, except that:

1. No license is required for the measurement of wood by weight when that measurement involves only the reading or recording of the number on the scale; and

2. No license is required for the measurement of firewood in consumer transactions on the retail market.

B. Enforcement actions and license penalties. A licensed wood scaler or apprentice wood scaler who violates the Wood Measurement Law or these Wood Measurement Rules is subject to the enforcement action and license denial, revocation and suspension provisions set forth in Chapter 380, section 4, subsections A and B.

SECTION 2. LICENSE ELIGIBILITY AND APPLICATIONS

A. Eligibility to apply for licenses. Any individual 18 years of age or older is eligible to apply for a wood scaler license or an apprentice wood scaler license.

B. Applications for licenses and renewal. An application for a wood scaler license or an apprentice wood scaler license shall be made on forms obtained by the applicant from the State Sealer. An application to renew a wood scaler license shall be made on a form to be sent to licensees by the State Sealer.

NOTE: Application forms may be obtained from:

State Sealer - Wood Scaler Licensing
Department of Agriculture, Food and
Rural Resources
Division of Regulations
State House Station #28
Augusta, ME 04333

Tele: (207) 289-3841

C. Filing requirements for applications. No individual may measure wood in a wood transactions covered by these Wood Measurement Rules until he has applied for and been issued a license by the State Sealer.

SECTION 3. WOOD SCALER LICENSE

A. Qualifications. To qualify for a wood scaler license, an individual must satisfy the State Sealer that he is competent to measure wood using one or more authorized systems of measurement and successfully complete an examination as established by the State Sealer. The level of qualification that is required will, in part, depend on which system(s) of measurement the applicant seeks to be licensed for. Among the ways to demonstrate competence are the following:

1. A total of 5 years experience as a wood scaler, whether continuous or non-continuous, within the past 10 years.
2. Two years continuous experience as a wood scaler immediately prior to the filing of the application,
3. Certification as a Registered Professional Forester in Maine or similar certification in another state of the United States or a province of Canada which is determined by the State Sealer to be at least the equivalent of certification as a Registered Professional Forester and evidence of experience scaling wood which demonstrates competence using one or more authorized systems of measurement;
4. Satisfactory completion of a training program in wood scaling plus six months experience as a licensed apprentice wood scaler working under the direct supervision of a licensed wood scaler. The applicant must provide information which demonstrates to the satisfaction of the State Sealer the merit of the training program; or
5. Two years experience as a licensed apprentice wood scaler working under the direct supervision of a licensed wood scaler.
6. Evidence of other training, experience scaling wood, or other relevant experience or knowledge, which demonstrates to the satisfaction of the State Sealer that the applicant is competent in one or more authorized system of measurement.

B. Information required. The applicant for a wood scaler license shall include in the application:

1. Information sufficient to demonstrate that he qualifies for a license under subsection A; and

2. Information indicating what authorized system(s) of measurement he is competent to perform.

C. Issuance. On the basis of the information supplied by the applicant in the application and successful completion of the examination, and following receipt of the required fee, the State Sealer shall issue a wood scaler license to an applicant whom he determines to be qualified. The license shall indicate the authorized system(s) of measurement the licensee is licensed to use. The State Sealer shall rely on the representations of the applicant in determining whether to issue a license. If the applicant misrepresents his qualifications on the application, it is a basis for denial, suspension, revocation of the license.

D. Conditions. The following conditions apply to wood scaler licenses:

1. A licensed wood scaler may use only the authorized system or systems of measurement for which he is licensed.
2. A licensed wood scaler shall keep the original or a copy of his license on his person at all times that he is engaged in the measurement of wood.
3. A licensed wood scaler shall sign or stamp all measurement tally sheets with his name and his license number.
4. A licensed wood scaler whose license has been revoked or suspended shall immediately return the revoked or suspended license to the State Sealer and shall immediately discontinue the measurement of wood in transactions in which this measurement will form the basis for payment.
5. A licensed wood scaler shall be responsible for the accuracy of his measurements and for compliance with these Wood Measurement Rules.
6. A licensed wood scaler who is assisted in the measurement of wood by any other individual, including an apprentice wood scaler, shall be responsible for the accuracy of the assistant's measurements and for the assistant's compliance with the Wood Measurement Law and these Wood Measurement Rules. If the assistant of a licensed wood scaler does not comply with applicable laws and rules, the licensed wood scaler will be subject to the sanctions of the Wood Measurement Law.

7. A licensed wood scaler shall be familiar with the Wood Measurement Law and these Wood Measurement Rules at the time he is licensed and shall remain familiar and comply with these laws and rules, including amendments, throughout his period of licensure.

E. Term and Fees.

1. One Year License. The term of a one year wood scalers license is one year from the date of issuance or the date of renewal. The annual fee for a wood scaler license is \$25.

2. Two year License. Upon request a wood scaler license may be issued for a two year period from the date of issuance or the date of renewal. The fee for a two year license is \$50.

F. Renewal. A wood scaler license will be automatically renewed upon payment of the required fee and upon furnishing any information requested by the State Sealer, except that a wood scaler license will not be automatically renewed if:

1. The license has been suspended or revoked; or
2. The licensee is under investigation for an alleged violation of the Wood Measurement Law or these Wood Measurement Rules.

SECTION 4. APPRENTICE WOOD SCALER LICENSE

A. Types and terms of licenses. There are two types of apprentice wood scaler licenses: a six-month license and a two-year license.

1. The six-month license allows the licensee, for a six-month period, to measure wood only under the direct supervision of a licensed wood scaler.

2. The two-year license allows the licensee, for a two year period, to measure wood only under the direct supervision of a licensed wood scaler.

B. Qualifications. The qualifications for an apprentice wood scaler license are as follows:

1. Any individual 18 years of age or older who has successfully completed a training program in wood scaling qualifies for a six-month apprentice wood scaler

license. The applicant must provide information which demonstrates to the satisfaction of the State Sealer the merit of the training program.

2. Any individual 18 years of age or older qualifies for a two-year apprentice wood scaler license.

3. An individual who is a licensed wood scaler in any system of measurement is qualified for a six month apprentice license in any other system of measurement.

C. Issuance. On the basis of the information supplied by the applicant in the application, and following receipt of the required fee, the State Sealer shall issue an apprentice wood scaler license to an applicant whom he determines to be qualified. The license shall indicate whether the license is a six-month or two-year license.

D. Conditions. The following conditions apply to apprentice wood scaler licenses:

1. A licensed apprentice wood scaler may use only the authorized system or systems of measurement for which the licensed wood scaler who is his supervisor is licensed.

2. A licensed apprentice wood scaler shall keep the original or a copy of his license on his person at all times that he is engaged in the measurement of wood.

3. A licensed apprentice wood scaler shall sign or stamp all measurement tally sheets with his name, his license number, and the supervising scaler's name and license number. The supervising scaler's name and license number must be given even if the apprentice is temporarily measuring wood without supervision.

4. A licensed apprentice wood scaler whose license has been revoked or suspended shall immediately return the revoked or suspended license to the State Sealer and shall immediately discontinue the measurement of wood in transactions in which his measurement will form the basis of payment.

5. A licensed apprentice wood scaler shall be responsible, together with the licensed wood scaler who is his supervisor, for the accuracy of his measurements and for compliance with the Wood Measurement Law and these Wood Measurement Rules. If the licensed apprentice wood scaler does not comply with applicable

laws and rules, both the licensed apprentice wood scaler and the licensed wood scaler who is his supervisor will be subject to the sanctions of the Wood Measurement Law.

6. A licensed apprentice wood scaler shall be familiar with the Wood Measurement Law and these Wood Measurement Rules at the time he is licensed and shall remain familiar and comply with these laws and rules, including amendments, throughout his period of licensure.

E. Term. The term of the apprentice license is two years. The holder of a six month apprentice license may apply for a wood scaler's license or for renewal of his apprentice license after six months of apprenticeship experience.

F. Renewal. An apprentice license will be automatically renewed upon payment of the required fee and upon furnishing any information requested by the State Sealer, except that an apprentice license will not be automatically renewed if:

1. The license has been suspended or revoked; or
2. The licensee is under investigation for an alleged violation of the Wood Measurement Law or these Wood Measurement Rules.

G. Fee. The fee for an apprentice wood scaler license is \$15, except that a holder of a six-month license who, immediately following the six-month apprenticeship, successfully applies for a wood scaler license will receive a \$15 credit toward the wood scaler license fee. An individual who is a licensed wood scaler for any measurement system qualifies for an apprentice license in any other system, and is not required to pay an additional fee for the apprentice license.

SECTION 5. AUTHORIZATION FOR A TEMPORARY SUBSTITUTE TO SCALE WHEN LICENSED WOOD SCALER UNAVAILABLE

A. Authorized temporary substitute. If due to circumstances beyond his control, a person is temporarily unable to obtain the services of a licensed wood scaler, or a licensed wood scaler is temporarily unable to perform his work, the State Sealer may authorize a licensed

apprentice wood scaler or an unlicensed individual to measure wood in those particular circumstances, provided that:

1. The State Sealer must determine in advance that the substitute individual so authorized is competent to measure wood; and
2. The State Sealer shall set a definite time period, not to exceed two weeks, during which the authorized substitute may measure wood and shall specify the authorized system or systems of measurement which the substitute may use and the circumstances in which the substitute is authorized to measure wood.

B. Emergency substitute. If due to circumstances beyond his control, a licensed scaler is temporarily unable to perform his work, and neither he nor the person in need of the services of the scaler is able to reach the State Sealer to obtain authorization for a temporary substitute, the scaler may permit an unauthorized person to measure wood in his place, provided:

1. The licensed scaler and the person who measures the wood are both responsible for all measurements made and for compliance with the Wood Measurement Law and these Wood Measurement Rules;
2. Within two days, the licensed wood scaler, or the person in need of the services of the scaler, shall obtain temporary authorization from the State Sealer as provided in subsection A;
3. The substitute individual must sign his name on all measurement tally sheets reflecting measurements made by him; and
4. The substitute individual must record the date he was authorized and the name and license number of the licensed wood scaler who authorized him on all measurement tally sheets reflecting measurements made by him.

C. Licensed apprentice wood scaler.

1. A licensed apprentice wood scaler with a six-month license who has measured wood under the direct supervision of a licensed wood scaler for at least two months may measure wood without supervision for a period not to exceed two weeks if his supervisor dies or is incapacitated by illness or injury and another licensed wood scaler is unavailable.

2. A licensed apprentice wood scaler with a two-year license who has measured wood under the direct supervision of a licensed wood scaler for at least six months may measure wood without supervision for a period not to exceed two weeks if his supervisor dies or is incapacitated by illness or injury and another licensed wood scaler is unavailable.

D. Avoidance of licensing requirements. Any temporary authorization to measure wood under subsections A through C is a violation of these Wood Measurement Rules if the purpose of obtaining or giving the temporary authorization is to avoid getting a license or to avoid using a licensed scaler.

SECTION 6. INVESTIGATIONS TO ENSURE COMPLIANCE WITH LICENSING REQUIREMENTS

A. Compliance investigations. The State Sealer may conduct such investigations as he deems necessary to verify and ensure compliance with the licensing requirements of the Wood Measurement Law and these Wood Measurement Rules. If the investigation involves check measurement, the check measurement shall be conducted by a wood scaler who is licensed under this chapter and who is either a state employee or a person under contract to the State.

B. Violations. Whenever the State Sealer has reason to believe a violation of the Wood Measurement Law or these Wood Measurement Rules has occurred, the State Sealer may issue preliminary findings and a determination and written findings as set forth in Chapter 384, sections 11 and 12.

NOTE: The penalties for violation of the Wood Measurement Law and these Rules, including fines, damages, and denial, suspension, or revocation of a Wood Scaler's license or apprentice license are set forth in Chapter 380, section 4.

AUTHORITY: 10 M.R.S.A. §2361-A et seq.

EFFECTIVE DATE: April 30, 1985

AMENDMENT EFFECTIVE: July 30, 1986

APPENDIX TABLE I

UNITS OF MEASURE FOR DECLARATION OF QUANTITY

<u>System of Measure</u>	<u>Gross Scale</u>	<u>Net Scale</u>
A. Butt Measure		
Diameter count:	Stems	
Cumulative sum:	Stem units	
B. Count	Pieces	
C. Butt Scale	Cunits or standard cords	Net Cunits or net standards cord
D. Stick Cord Scale	Standard cords or face cords	Net standard cords or net face cords
E. Log Scale	Board feet, indicating the log rule used	Net board feet, indicating the log rule used
F. Linear Measure	Linear feet	Net linear feet
G. Cubic Foot Measure	Cunits	Net cunits
H. Chip Volume Scale	Chipcords	
I. Thrown Cord Scale	Standard cords	
J. Weight Scale	Thousand pounds(tholbs) or tons	Net tholbs, or net tons
K. Sample Scaling	Applicable Method	

APPENDIX TABLE II
SYSTEMS OF MEASUREMENT

<u>System of Measure</u>	<u>Summary of What Is Measured</u>	<u>Declaration of Quantity Gross Scale [Net scale in brackets]</u>	<u>Wood Production forms [State stand. in brackets as S.S.]</u>
A. Butt Measure	a. lineal measure of butt diameters represented by stem count for each diameter class, or	Stems for diameter class	tree length [S.S.] Semi-tree length and chunkwood [S.S.]
	b. lineal, measure of butt diameters represented by cumulative sum of stem diameters	Stem units: 100 inches = 1 stem unit	Log length Polewood
B. Count	number of stems	Pieces	Tree length Log length Polewood Unstacked fulewood length Semi-tree length and Chunkwood
C. Butt Scale (prohibited after March 31, 1986 in payment for services)	a. lineal measure of butt diameters computed in cubic feet	Cunits [Net cunits]	Tree length
	b. lineal measure of butt diameters computed in cubic feet, and then represented in standards cords	Standard cords [Net standard cords]	
D. Stick Cord Scale	a. cubic content of stack	Standard cords [Net standard	Stacked wood [S.S.]
	b. square foot measure of face of stack	Face cords [Net face cords]	

APPENDIX TABLE II (con't)

E. Log scale	Apparent saw timber volume by log rule	Board feet, indicating the log rule used [Net board feet, indicating the log rule used]	Log length [S.S.]
F. Linear measure	linear measure of stem length	Linear feet [Net linear feet]	Polewood [S.S.]
G. Cubic foot measure	Cubic content of individual stem	Cunits [Net cunits]	Tree length log length Polewood Semi-tree length Chunkwood
H. Chip volume scale	Cubic content of load	Chipcords(128 cubic feet of chipped material)	Chipped wood [S.S.]
I. Thrown cord scale	Cubic content of container of unstacked fuelwood lengths	Standard cords	unstacked fuelwood lengths [S.S.]
J. Weight scale	a. weight of load b. dry weight of the load	Thousand pound units(Tholbs), or tons Thousand pound (Tholbs) dry weight; or tons dry weight	Tree length Log length Stacked wood Polewood Chunkwood Chipped wood Unstacked fuelwood lengths Semi-tree lengths
K. Sample Scaling	Applicable Measure	Applicable Measure	Applicable Measure

THE INTERNATIONAL LOG RULE FOR SAWS CUTTING A 1/8 INCH KERF
 Standard scale for seasoned lumber with 1/16-inch shrinkage per 1-inch board, and saws cutting a 1/8-inch kerf, or for green lumber, for saws cutting a 3/16-inch kerf

Diameter, Inches	Length of Log in Feet													Diameter, Inches
	8	9	10	11	12	13	14	15	16	17	18	19	20	
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	5	5	5	3
4	.....	.....	5	5	5	5	5	5	5	10	10	10	10	4
5	5	5	5	5	10	10	10	10	15	15	15	15	20	5
6	10	10	10	15	15	15	20	20	20	25	25	30	30	6
7	15	15	15	20	20	25	25	30	30	35	35	40	45	7
8	20	20	25	25	30	35	35	40	45	45	50	55	60	8
9	25	30	30	35	40	45	50	50	55	60	65	70	75	9
10	30	35	40	45	50	55	60	65	70	75	85	90	95	10
11	40	45	50	55	65	70	75	80	90	95	105	110	115	11
12	50	55	65	70	75	85	90	100	105	115	125	130	140	12
13	60	65	75	85	90	100	110	120	130	140	145	155	165	13
14	70	80	90	100	110	120	130	140	150	160	175	185	195	14
15	80	90	105	115	125	140	150	160	175	185	200	215	225	15
16	95	105	120	130	145	160	170	185	200	215	230	245	260	16
17	105	120	135	150	165	180	195	210	225	245	260	275	295	17
18	120	135	155	170	185	205	220	240	255	275	295	310	330	18
19	135	155	175	190	210	230	250	270	290	310	330	350	370	19
20	150	170	195	215	235	255	275	300	320	345	365	390	410	20
21	170	190	215	235	260	285	305	330	355	380	405	430	455	21
22	185	210	235	260	285	315	340	365	390	420	445	475	500	22
23	205	230	260	285	315	345	370	400	430	460	490	520	550	23
24	225	255	285	315	345	375	405	440	470	500	535	565	600	24
25	245	275	310	345	375	410	445	475	510	545	580	615	650	25
26	265	300	335	370	405	445	480	520	555	595	630	670	705	26
27	290	325	365	405	440	480	520	560	600	640	680	725	765	27
28	310	350	395	435	475	520	560	605	645	690	735	780	825	28
29	335	380	425	470	510	560	605	650	695	740	790	835	885	29
30	360	405	455	500	550	600	645	695	745	795	845	895	950	30
31	385	435	485	540	590	640	695	745	800	850	905	960	1015	31
32	410	465	520	575	630	685	740	795	850	910	965	1025	1080	32
33	440	495	555	610	670	730	790	850	905	970	1030	1090	1150	33
34	470	530	590	650	715	775	840	900	965	1030	1095	1160	1225	34
35	495	560	625	690	755	825	890	955	1025	1095	1160	1230	1300	35
36	525	595	665	735	800	875	945	1015	1085	1160	1230	1305	1375	36
37	560	630	705	775	850	925	1000	1075	1150	1225	1300	1380	1455	37
38	590	665	745	820	895	975	1055	1135	1210	1295	1375	1455	1535	38
39	620	705	785	865	945	1030	1110	1195	1280	1365	1450	1535	1620	39
40	655	740	825	910	995	1085	1170	1260	1345	1435	1525	1615	1705	40
41	690	780	870	960	1050	1140	1230	1325	1415	1510	1605	1700	1795	41
42	725	820	915	1010	1100	1200	1295	1390	1490	1585	1685	1785	1885	42
43	760	860	960	1060	1155	1260	1360	1460	1560	1665	1770	1870	1975	43
44	800	900	1005	1110	1215	1320	1425	1530	1635	1745	1855	1960	2070	44
45	835	945	1055	1160	1270	1380	1490	1600	1715	1825	1940	2050	2165	45

BANGOR LOG RULE

Log Volume in Board Feet

Dia. In Inches	Length in Feet															Dia. in Inches
	13'	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	25'	26'	27'	
8	33	36	39	41	43	46	49	51	53	56	59	61	64	66	69	8
9	44	48	51	54	58	61	65	68	71	75	78	82	85	88	92	9
10	56	60	65	69	73	77	82	86	90	95	99	103	108	112	116	10
11	68	73	79	84	89	94	100	105	110	115	121	126	131	136	142	11
12	81	87	94*	100	106	112	119	125	131	137	144	150	156	162	169	12
13	96	103	110	118	125	132	139	147	154	162	169	176	184	192	199	13
14	111	120	129	137	145	154	162	171	180	188	197	205	214	222	231	14
15	129	139	149*	158	168	178	188	198	208	218	228	238	248	258	268	15
16	148	160	171	182	194	205	217	228	239	251	262	273	285	296	308	16
17	170	183	196	209	222	235	248	261	274	287	300	313	326	340	353	17
18	193	208	223	238	252	267	282	297	312	327	342	356	371	386	401	18
19	218	235	251	268	285	301	318	335	352	369	385	402	419	436	452	19
20	244	262	281	300	319	338	356	376*	394	412	431	450	469	488	507	20
21	271	292	313	334	354	375	396	417	438	459	480	500	521	542	563	21
22	300	323	346	369	392	415	438	461	484	507	530	553	576	600	623	22
23	330	355	380	406	431	456	482	507	532	558	583	608	634	660	685	23
24	364	388	416	444	472	500	527*	555*	583	611	638	666	694	722	749	24
25	393	423	454	484	514	544	575	605	635	666	696	726	756	786	817	25
26	426	459	492	525	558	590	623	666	689	722	757*	787	820	852	885	26
27	460	496	531	566	602	637	673	708	743	779	817*	850	885	920	956	27
28	495	533	571	609	647	685	723	761	799	837	875	913	951	990	1028	28
29	530	571	611	632	693	734	775	815	856	896	937	978	1019	1060	1101	29
30	566	610	653	697	740	784	827	871	914	958	1002	1045	1089	1132	1176	30
31	604	650	697	743	790	837	883	929	975	1022	1068	1115	1161	1208	1254	31
32	644	693	743	792	842	891	941	990	1040	1089	1139	1188	1238	1288	1337	32
33	684	736	789	842	894	947	999	1052	1105	1157	1210	1262	1315	1368	1420	33
34	725	781	836	892	948	1004	1059	1115	1171	1227	1282	1338	1394	1450	1505	34
35	767	826	885	944	1003	1062	1121	1180	1239	1298	1357	1416	1475	1534	1593	35
36	811	873	935	998	1060	1122	1185	1247	1309	1371	1434*	1496	1559	1622	1684	36
37	855	921	987	1053	1118	1184	1250	1316	1382	1448	1513	1589	1645	1710	1777	37
38	901	971	1040	1110	1179	1248	1318	1387	1456	1526	1595	1664	1734	1803	1872	38
39	949	1022	1095	1168	1241	1314	1387	1460	1533	1606	1679	1752	1825	1898	1971	39
40	998	1074	1151	1228	1305	1381	1458	1535	1612	1689	1765	1842	1919	1996	2072	40
41	1049	1130	1211	1291	1372	1453	1533	1614	1695	1775	1856	1937	2018	2098	2179	41
42	1102	1187	1272	1357	1442	1527	1611	1696	1781	1866	1950*	2035	2120	2204	2289	42

MAINE OR HOLLAND, LOG RULE 1/

Diameter in Inches

length in feet	Diameter in Inches														length in feet								
	6"	7"	8"	9"	10"	11"	12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	25"	26"		
8'	10	16	22	26	34	41	52	60	71	81	89	102	116	136	151	168	182	200	220	238	254	8'	
9'	12	17	25	30	38	46	59	72	80	90	100	116	130	152	170	189	204	225	247				10'
10'	12	19	27	32	42	51	65	75	89	101	111	128	145	169	189	210	227	250	274	298	317		11'
11'	14	21	30	36	46	57	70	81	98	111	123	142	160	187	209	232	250	274	298	328	350		12'
12'	15	23	33	39	51	62	78	90	107	121	134	154	174	203	227	252	272	300	327	358	380		13'
13'	17	25	36	43	55	67	85	98	115	131	145	167	189	220	246	273	295	326	357	388	412		14'
14'	18	27	39	46	59	72	92	105	124	141	157	179	203	237	265	294	318	351	384	417	444		15'
15'	19	29	41	49	64	78	98	113	133	151	168	192	218	254	284	315	340	376	412	447	475		16'
16'	20	31	44	52	68	83	105	120	142	161	179	205	232	271	302	336	363	401	439	477	507		17'
17'	22	33	47	56	72	88	111	128	151	171	190	213	247	288	321	357	386	426	466	507	539		18'
18'	23	35	50	59	76	93	118	135	160	181	201	231	261	305	340	378	408	451	494	537	570		19'
19'	24	37	52	62	81	98	124	143	169	192	212	243	276	322	359	399	431	476	521	566	602		20'
20'	25	39	55	65	85	103	131	150	178	202	223	256	290	339	378	420	454	501	549	596	634		21'
21'	27	41	58	69	89	109	137	158	186	212	235	269	305	356	397	441	476	526	576	626	665		22'
22'	28	43	61	72	94	114	144	165	195	222	246	282	319	373	415	462	499	551	604	656	697		23'
23'	29	45	63	75	98	119	150	173	204	232	257	295	334	390	435	483	522	576	631	686	729		24'
24'	30	47	66	78	102	124	157	180	213	242	268	307	348	407	454	504	545	601	659	715	761		25'
25'	32	49	69	82	106	129	164	188	222	252	279	320	363	424	473	525	567	626	686	745	792		26'
26'	33	50	72	85	111	134	170	195	231	262	291	333	378	441	491	545	590	651	713	775	824		27'
27'	34	52	74	88	115	140	177	203	240	272	302	346	392	458	510	566	613	676	741	805	856		28'
28'	36	54	76	92	119	145	183	210	249	282	313	359	407	475	529	587	635	701	768	835	887		29'
29'	37	56	79	95	123	150	190	218	258	292	324	371	421	492	548	608	658	726	796	864	919		30'
30'	38	58	82	98	128	155	196	225	266	302	335	384	436	509	567	629	681	751	823	894	951		

1/ Also commonly called the "Bangor" Rule, but this is a misnomer.

Maine Forest Service 1/4/61 (200)

INTERNATIONAL 1/4" LOG RULE 1/

Log Volume in Board Feet

Diameter in Inches

length in feet	Log Volume in Board Feet																			length in feet		
	6"	7"	8"	9"	10"	11"	12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	25"	26"	
8'	10	10	15	20	30	35	45	55	65	75	85	95	110	125	135	155	170	185	205	220	240	8'
9'	10	15	20	25	35	40	50	60	70	85	95	110	125	140	155	170	190	210	230	250	275	9'
10'	10	15	20	30	35	45	55	70	80	95	110	125	140	155	175	195	215	235	255	280	305	10'
11'	10	15	25	30	40	50	65	75	90	105	120	135	155	175	195	215	235	260	285	310	335	11'
12'	15	20	25	35	45	55	70	85	100	115	130	150	170	190	210	235	260	285	310	340	370	12'
13'	15	20	30	40	50	65	75	90	105	125	145	165	185	205	230	255	285	310	340	370	400	13'
14'	15	25	35	45	55	70	85	100	115	135	155	180	200	225	250	280	305	335	370	400	433	14'
15'	20	25	35	45	60	75	90	105	125	145	170	190	215	245	270	300	330	360	395	430	470	15'
16'	20	30	40	50	65	80	95	115	125	160	180	205	230	260	290	320	355	390	425	460	500	16'
17'	20	30	40	55	70	85	105	125	145	170	195	220	250	280	310	345	380	415	455	495	533	17'
18'	25	35	45	60	75	95	110	135	155	180	205	235	265	300	330	365	405	445	485	525	570	18'
19'	25	35	50	65	80	100	120	140	165	195	220	250	280	315	350	390	430	470	515	560	603	19'
20'	25	40	50	70	885	105	125	150	175	205	235	265	300	335	370	410	455	495	545	590	640	20'

1/ Values as published by H. H. Chapman, extended by formula: $V = (0.22D^2 - 0.71D) \times .905$ for 4-foot section. Taper Allowance: 1/2 inch per 4 feet lineal. Sum total of sections rounded off to nearest 5 board feet.

2/ The board foot totals set forth above are the official board foot totals, notwithstanding any variance from the rounding off procedures set forth in Chapter 382.

BUTT DIAMETER MEASUREMENTS - CHECK SCALE PROCEDURES

When Butt Measure or Butt Scale is used the butt diameter measurement is made the short way across the butt end, from the outside surface of the bark to the opposite outside bark surface, disregarding crevices and cracks.

To determine the proper place to measure the butt diameter, first locate the geometric center of the butt end. This is where a thick slice off the butt would balance on a marking pencil. Passing through this point, find the shortest distance across the butt disregarding crevices and cracks. "Crevices and cracks" include any indentations in the stem regardless of how they are labeled or how they were caused. "Crevices and cracks" are distinguished from "rounded depressions". (The idea is to fairly represent the diameter of the stem without requiring additions for bulges or subtractions for irregularities.) For general examples of butt diameter measurements, see Attachment 1.

The following explains how the butt diameter measurements are made under particular circumstances.

A. Distinguishing indentations from rounded depressions in borderline cases.

1. Rounded depression: Where one-half the chord length (c) is equal to or longer than the depth (d), as measured from and perpendicular to the chord line.
2. Indentation: Where one-half the chord length (c) is shorter than the depth (d), as measured from and perpendicular to the chord line.

For an illustration of how to distinguish rounded depressions from indentations, see Attachment 2.

B. Breaks and cracked butts

1. Breaks (slab missing): In the case of breakage where a portion of the stem has split off at the butt end, the edge of the break is considered the outside surface of the stem.
2. Cracked butts (slab not missing): Whether naturally occurring or caused in the process of harvesting, cracks or seams in the butt end must be disregarded in determining the short way across the butt diameter.

For illustration of butt diameter measurements in the case of breaks or cracked butts, see Attachment 3.

C. Bias cuts, undercuts or otherwise angled butt surfaces

Where the saw cut is angled, the diameter measurement is taken across the butt end from the outside surface of the stem disregarding the uneven surface or angles; taking the measurement perpendicular to the growing axis of the tree as if calipers were used.

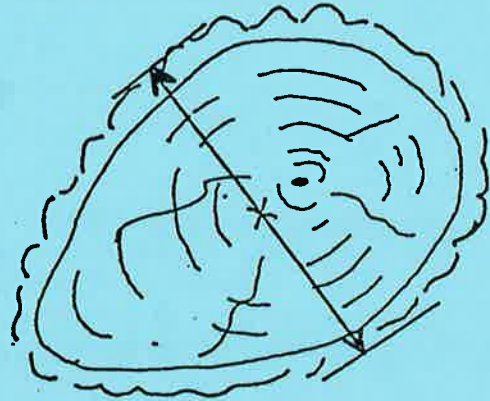
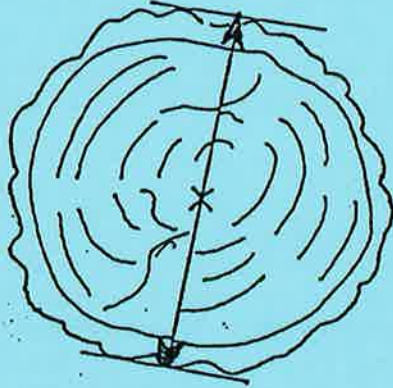
For an illustration of butt diameter measurements in the case of bias cuts and undercuts, see Attachment 4.

D. Missing bark

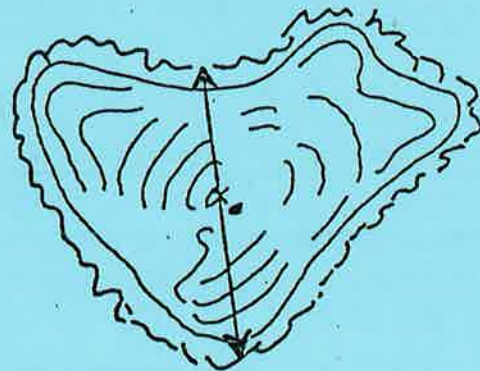
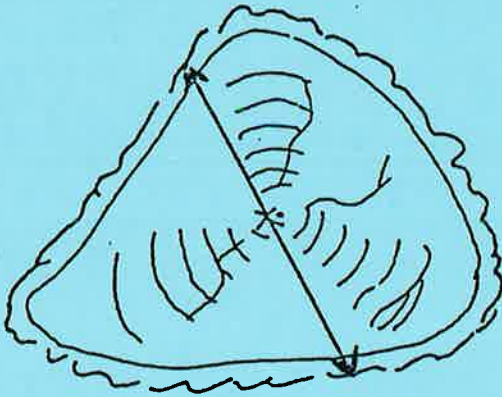
When bark is missing, or the edge of the butt surface is chipped, an appropriate allowance should be made, as if calipers were being used to take the measurement. In the event there is no bark by which to determine the appropriate bark allowance, then the measurement may be taken absent bark.

BUTT DIAMETER MEASUREMENTS

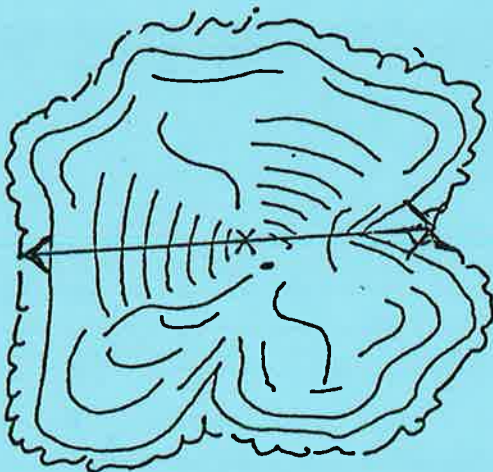
ROUND OR OVAL



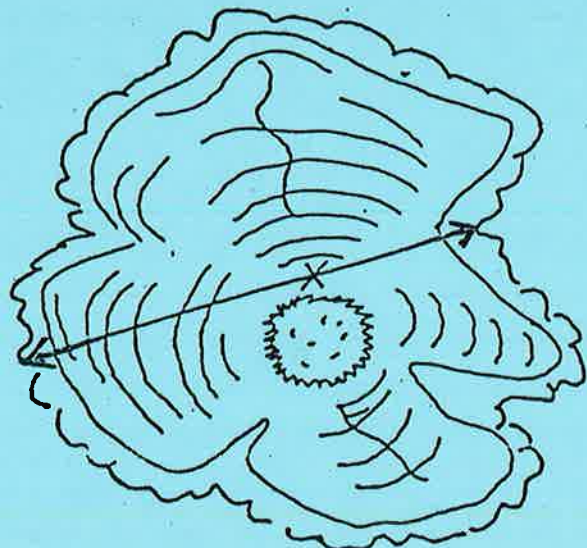
TRIANGULAR



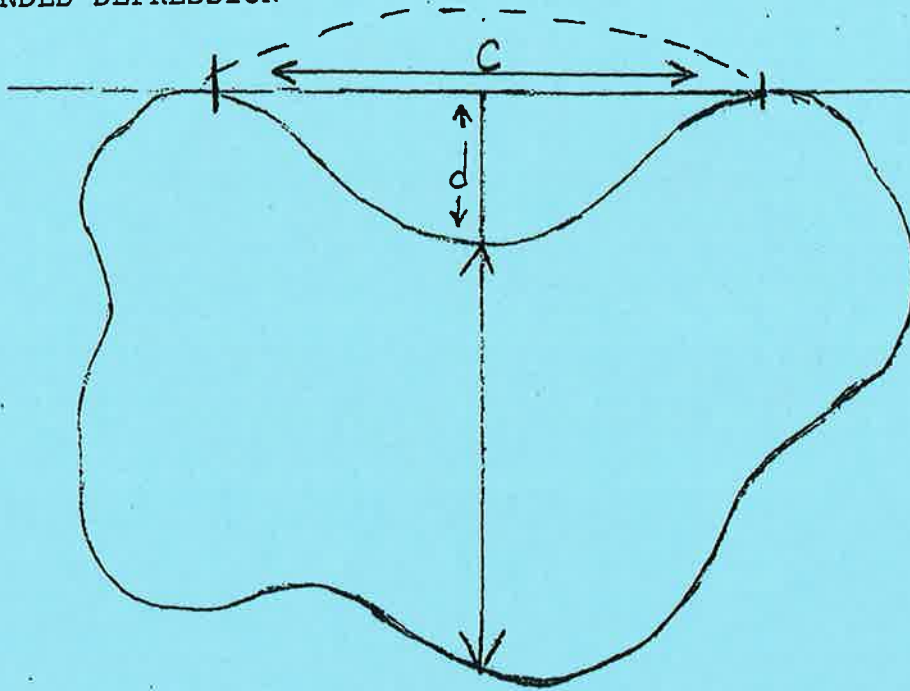
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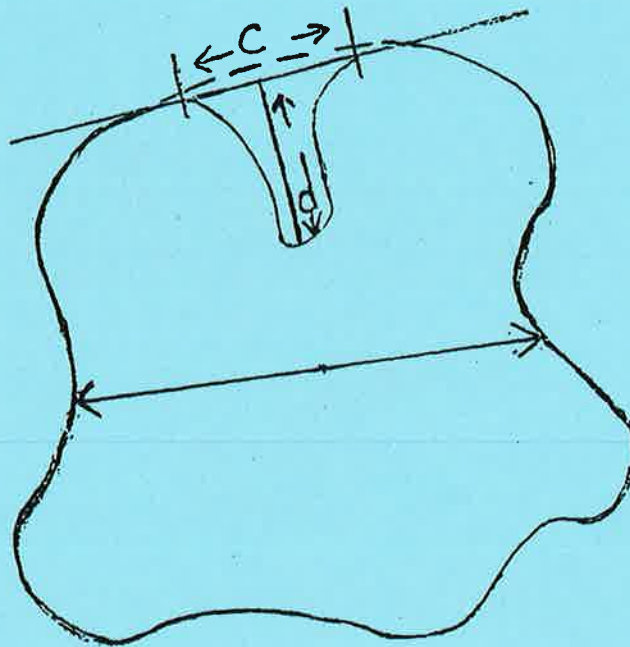
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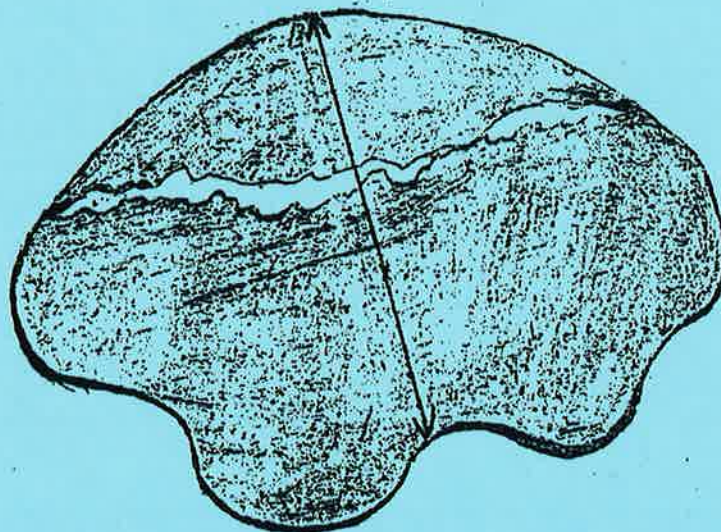
ROUNDED DEPRESSION



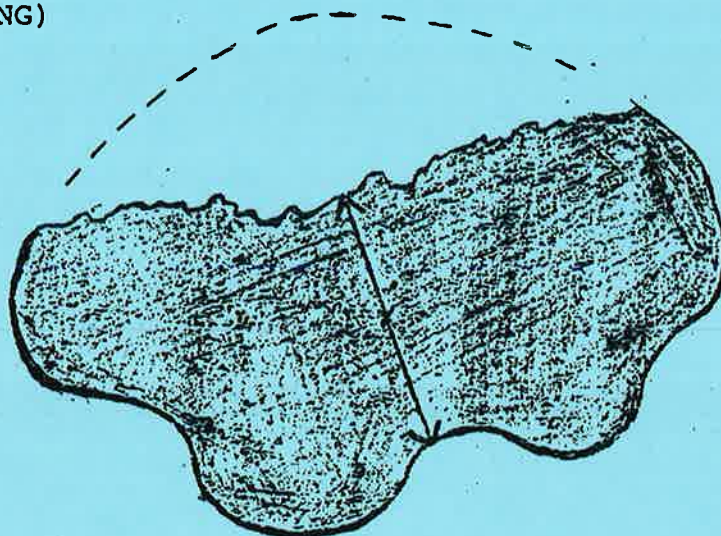
INDENTATION



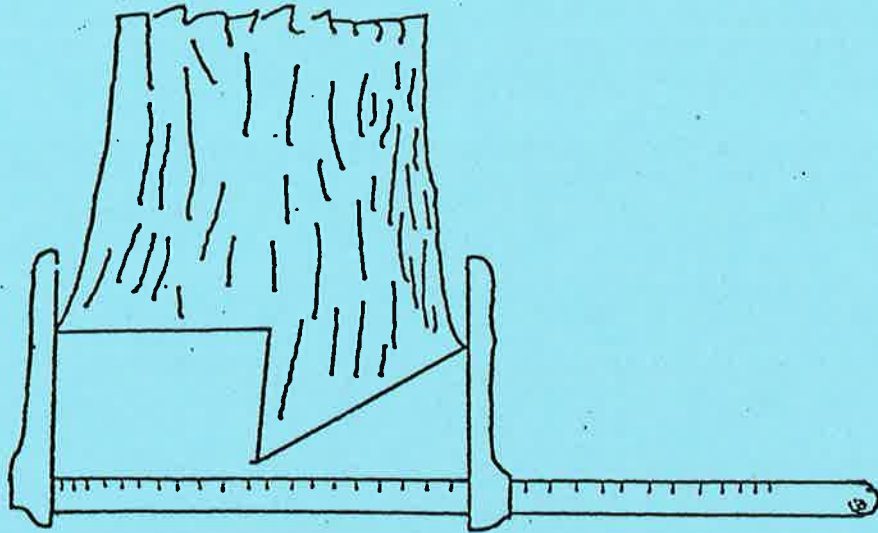
CRACKED BUTTS



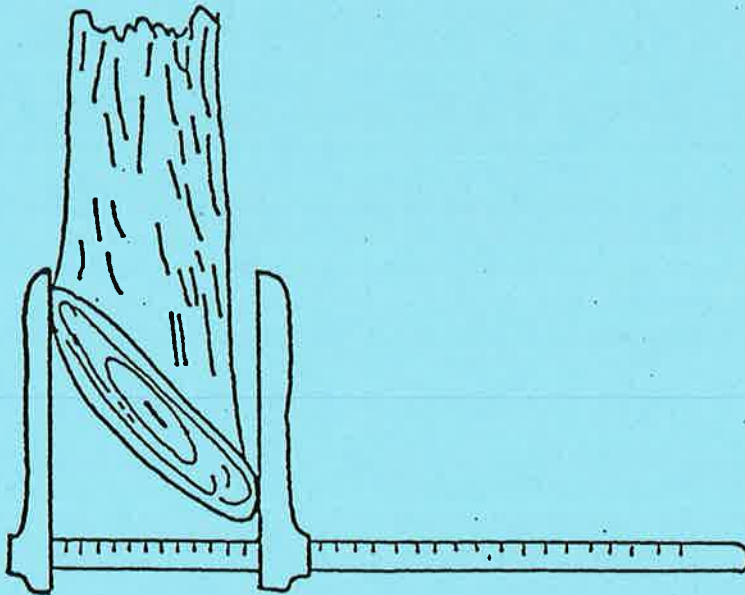
BREAKS (SLAB MISSING)



UNDERCUTS AND BARBER CHAIRS



BIAS CUTS



Chapter 82: Cubic Foot Measurement
Code 82.3 - "Defect Deduction"

Make defect deductions in cubic feet in accordance with the general saw timber deduction methods for defects that reduce the cubic volume of the log. Deduct from the total log cubic volume the volume in cubic feet of ... [the portion of the log not meeting the wood quality specifications].

There is no allowance for saw kerf in cubic measurement. Thus the deductible volume by formula is $(H'' \times W'' \times L')/144$. Following is a suggested way to apply this formula:

1. Always consider every defect as extending through a 12-foot log.
2. Convert the defect height figure from inches to tenths of feet.
3. Multiply those tenths of feet by the width in inches for the defect extending through a 12-foot log.
4. Calculate the actual deductions in relation to the 12-foot length.

EXAMPLE: A log 24 feet long with a 14-inch diameter contains 26 cubic feet gross. Rot defect in this log measures 4 inches high x 9 inches wide. Four inches is equivalent to 0.3 feet. Multiply $0.3 \times 9 = 2.7$ or 3 cubic feet for a 12-foot length. If the defect extends into the log only 6 feet, the deduction then would be half of 3 or 1.5 or 2. For a defect extending into the log 18 feet, deduction is $1.5 \times 3 = 5$ cubic feet. The gross scale of 26 minus 5 = 21 cubic feet, the net volume of the log.

Unless...[provided for in the wood quality specifications] make no deductions for sweep, shake, break, crotches, or knots. Deduct for unsound material affecting the merchantability of the end product of the sale...[where provided for in the wood quality specifications.]

Chapter 70: Use of International Log Rules
Code 72 - "Scaling Cylinder In International Rule"

The International 1/4 Inch Rule is based on a formula applied to each 4 foot section of the log and an assumed taper of 1/2 inch in each 4 feet (2 inches in 16 feet).... For practical purposes, assume that the scaling cylinder becomes a frustrum of a cone with a taper of 2 inches in 16 feet. See figures 61, 62, and 63....

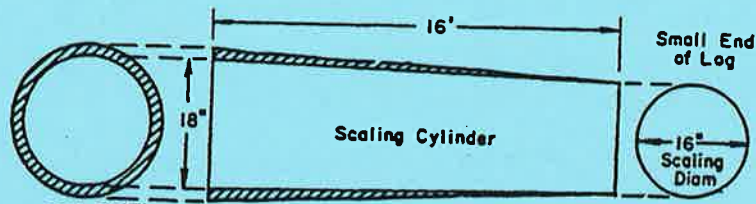


Figure 61. -Scaling cylinder for International rule.

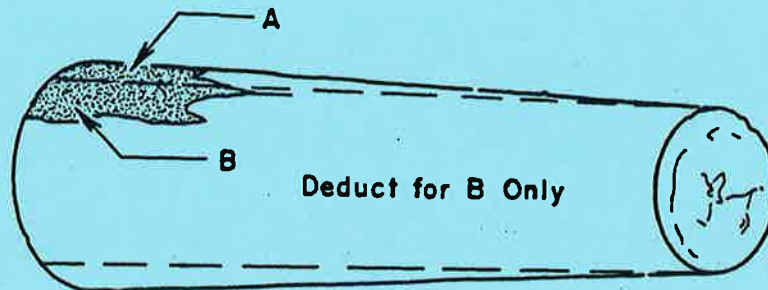


Figure 62. -Defect both inside and outside the scale cylinder.

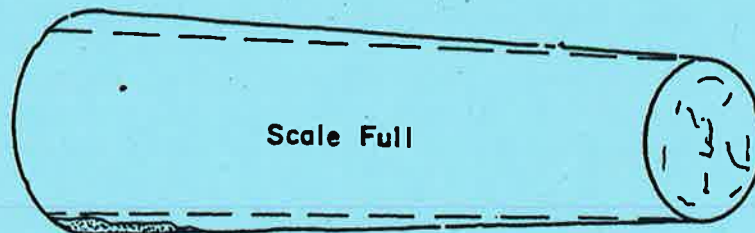


Figure 63. - Defect outside the scaling cylinder.

Chapter 30: Log Defect Deductions
Code 33 - "Defect Types and Deductions Procedures"

Breaks and Splits. Breaks and splits are mechanical defects which require special consideration. Modern-day logging, much of it in steep country, will generally result in some damage to the logs when felled, bucked, transported, and handled by various mechanical devices. In many instances this damage may result in a considerable loss of sound timber... Broken-end logs (shatter breaks) caused by falling, split or slabbed ends caused by poor bucking or falling, and slivers (stump pull) pulled from logs in falling are the most common types.

Breakage may occur regardless of what precautions are taken; or may result from improper bedding, felling trees across stumps, logs, rocks, or ridges. Accurate determination of the extent of lengthwise shattering is often difficult as it may be hidden by bark. Remove enough bark to ensure inclusion of all of the defect in the deduction.

Buckers should usually leave some breakage in a log to avoid waste.

Lengths of broken-end logs are determined as follows:

1. Where the broken end is wholly or partly bucked, measure the log from saw cut to saw cut and make any required deduction (fig. 15).

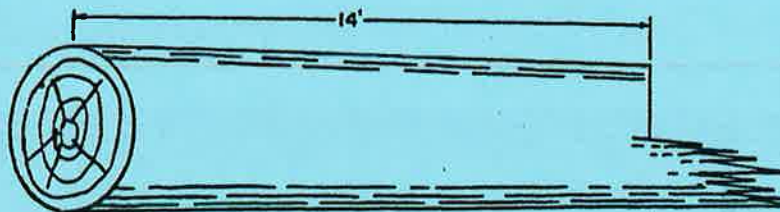


Figure 15. -Broken end partly bucked.

2. When only one end is bucked, determine the most applicable scaling length and make the required deduction (fig. 16)

3. When neither end is bucked, determine the applicable scaling length and make any required deduction for defect (fig. 17)

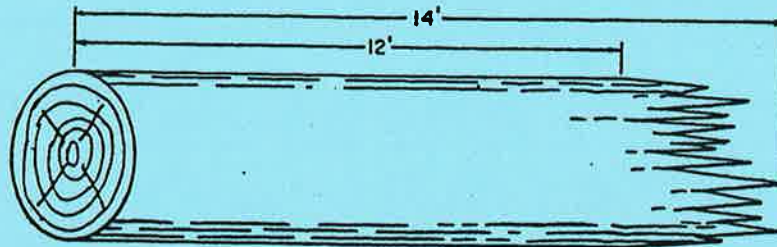


Figure 16. - Broken end not bucked.

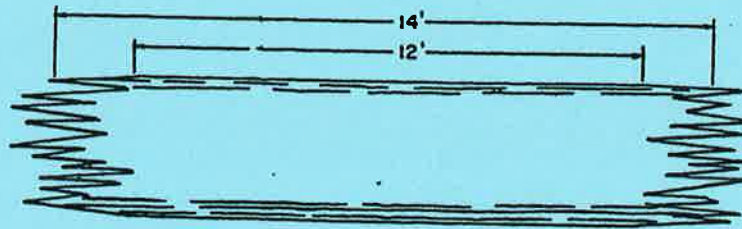


Figure 17. - Broken both ends, neither bucked.

The following deduction procedure should be used to simplify and standardize treatment of broken-end logs:

1. Logs under 16 inches. If a quarter to a half of the end section within the scaling cylinder is gone, deduct half the length affected (fig. 18). If more than half the end section is gone, consider the entire end lost and deduct for the full length affected (fig. 19).

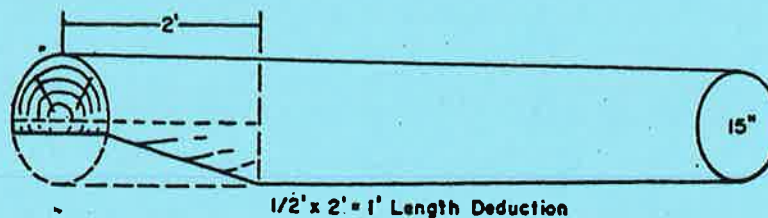


Figure 18. -End break. Small log deduction when half or less of log end is broken ($\frac{1}{2} \times 2' = 1'$ length deduction).

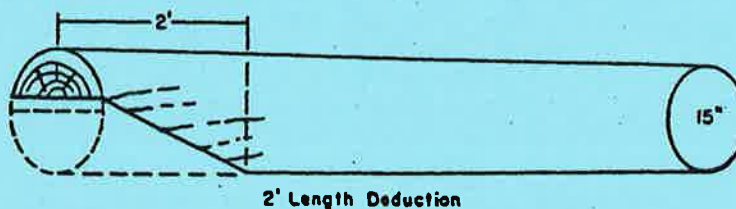


Figure 19. -End break. Small log deduction when over half of log end is broken (2' length deduction).

2. Logs 16 inches and over. When any portion of the end section is broken, use a combination or pie-cut and length deduction. See figures 20 and 21.

Falling and bucking breaks are generally avoidable, but may be caused by rot, by heavy leaning trees on steep slopes, or by some factor not readily apparent to the scaler. Deductions for these defects are generally made by the squared-defect method (fig. 22).

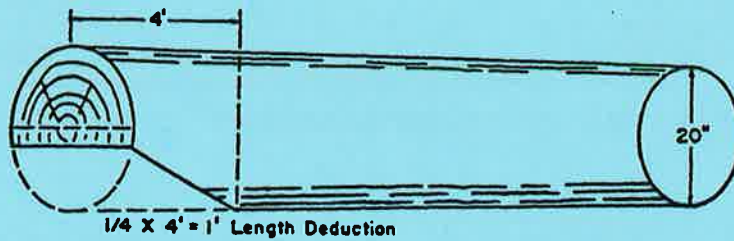


Figure 20. -End break. Large log deduction when half or less of log end is broken.

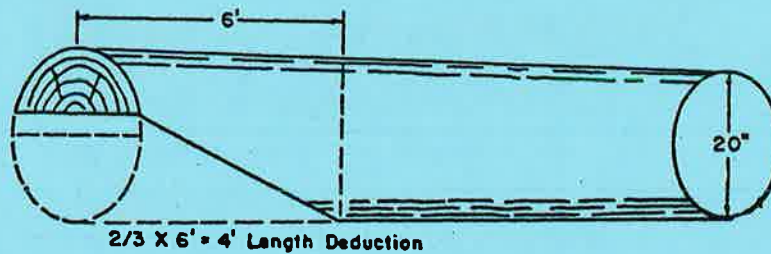


Figure 21. -End break. Large log deduction when over half of log end is broken.

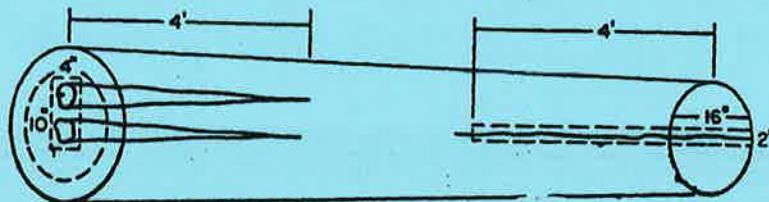


Figure 22. -Left, stump pull-squared-defect method. Right, bucking break (straight)-squared-defect method.

WOOD MEASUREMENT
SAMPLE COMPLAINT FORM

1. Name of Complainant(s): _____
Address: _____
City/Town: _____ State: _____
Zip Code: _____ Telephone # _____
Best Time to Call: _____

2. Brief statement of the facts surrounding the violation: what happened? when? where? who was involved? (if relevant, attach a copy of written specifications or measurement tally sheet)

(If more space is needed for statement attach separate sheet)

3. If known, include the following information:

a) Name/address of other party to transaction:

b) Name/address of person who measured the wood:

c) Name/address of any other person whose conduct complained of: _____

d) Name/address/phone of stumpage owner:

4. The location and a description of the wood involved (indicate whether or not the complaint is limited to inaccurate measurement of one particular load, pile, or specific pieces).

5. If the complaint only involves inaccurate measurement of a particular load, pile, or specific piles; state the date the problem was discovered:

6. If you gave a notice to hold wood to the person in possession of the wood, on what date was that notice given:

Date: _____

7. Does the person whose conduct is complained about know you filed this complaint? Yes No

If the answer is no and we find it may not be possible to pursue the investigation without revealing your name we will obtain your permission to reveal your name before we continue the investigation.

01 DEPARTMENT OF AGRICULTURE, FOOD AND
RURAL RESOURCE
001 DIVISION OF REGULATIONS

CHAPTERS 380-384 WOOD MEASUREMENT RULES AS ADOPTED JANUARY 1985
BASIS FOR ADOPTION

These rules, required by 10 M.R.S.A. §2367 are adopted to implement the revised Wood Measurement Law, P.L. 1984, c.804. Rulemaking hearings on proposed rules were held on October 4, 5 and 6, 1984. An extensive record was compiled. On the basis of the oral and written comments received, the proposed rules have been explicated and expanded.

It may be useful to describe the framework of the rules, so that the nature of each chapter and the interrelationships between chapters are clear. Chapter 380 sets out the intent of the rules, provides generally for their applicability and scope, and contains definitions of terms used throughout the rules. Chapters 381 and 381-A set out the rights and responsibilities which are the core of the Wood Measurement Law and the rules. Chapter 382, the longest chapter by far, establishes the standards for measurement systems and procedures and is thus essential to the Department's responsibility to administer and enforce the statute and rules. Chapter 383 provides procedures for the filing and handling of complaints and investigations. Chapter 384 establishes the wood scaler licensing program.

Before discussing the comments, a general observation should be made. Many commentors, in testimony and written comments, asked that the adopted rules be more detailed and explicit than were the proposed rules. And so they are. Inevitably, they are also far longer. Their detail and resulting length reflect the complexities of practices that industry has been reluctant to give up. Into this existing complex system, the rules incorporate and explicate the changes made by the legislature in the Wood Measurement Law. The legislature clearly intended these changes to improve the observance of fundamental, common and familiar weights and measures concepts in the measurement of wood.

From a weights and measures standpoint, the Wood Measurement Law imposes on the measurement of wood requirements which are common to all situations in which measurement is the basis of an exchange between parties. What is required in such situations is that the system of measurement used be traceable to an objective standard, that it be suitable for the purpose and circumstances in which it is used, that it be uniformly applicable and uniformly applied in all like circumstances and that it yield

accurate results which are capable of being verified. These concepts of traceability, uniformity, suitability, accuracy and verifiability are fundamental and common to all systems of weighing and measuring.

Traceability requires the existence of an objective physical standard from which the weight or measure used in a method of measurement is derived. Uniformity requires that a measurement system utilize standardized units of measurement, devices for measuring in those units and procedures for applying the systems. Suitability requires that the system used be appropriate to that which is measured and to the purpose for which it is measured. Accuracy requires that the system be capable of being applied, and in fact be applied, with acceptable exactness. Verifiability requires that it be possible to confirm the accuracy of a measurement.

The legislative history of the Wood Measurement Law suggest that these requirements were not being met in many transactions involving the measurement of wood. We understand that legislation as intended to change that situation. Improved observance of these fundamental concepts, together with the record-keeping and informational requirements established by the statute, should bring to the industry a greater accountability that exists presently.

We turn now to the comments. Some comments addressed general issues and concepts in the law and rules. Others were addressed to particular points in the rules. This basis statement will discuss first the comments addressed to general issues.

Authorized Systems of Measurement

The proposed rules contemplated that while a variety of measurement systems were being and would continue to be used, no system could be used which was not authorized by the rules. Some commentators argued that the parties to a transaction should be able to use any system of measurement which they agreed to use and which was not expressly prohibited by the law or rules. We believe that this approach would be antithetical to the basic weights and measures concepts discussed above, as it would permit the parties to agree to use a system for which there was no objective standard, no uniform devices and procedures for applying the system and no standardized units for its expression and, therefore, no possibility of verification.

The legislative history supports the view that only the use of authorized systems of measurement be allowed. See, in

particular, House Amendment "A" to L.D. 2404, which would have permitted the use of any agreed upon system. That amendment was not enacted by the legislature.

For these reasons, the adopted rules retain and clarify the concept that only system of measurement which are authorized by the rules may be used. Ten systems are authorized. The inclusion of other systems can be proposed through rulemaking, in which a proposed system can be evaluated in light of the basic weights and measures concepts.

Payment for Services Transaction and Sales Transactions; Single Transactions Which Are a Combination of Both

The statute distinguishes in many ways between payment for services transactions and sales transactions. The rules reflect these distinctions. It is implicit in the statute and apparent in its legislative history that the distinctions are based upon the fact that in payment for services transactions, the measurement of wood is utilized to establish a quantity of work. (While there are other ways to measure the quantity of work - for example, by hours worked - the way recognized by the statute is measurement by the quantity of wood produced.) In sales transactions, measurement of wood is utilized to establish a quantity of wood.

This distinction leads to the difference in the way in which the taking of deductions for defects in wood quality (discounting) is treated in services and sales transactions. Because in services transactions the person providing services is responsible for the work performed, the quality of wood itself is not relevant. On the other hand, in sales, the seller is responsible for the quality of the product, i.e., the wood.

In payment for services transactions, the statute provides that "all wood which is properly prepared shall be measured in full, without regard to its future merchantability or use". Some commentators have argued that this provision permits discounting for improperly prepared wood on the basis of its quality. Such an interpretation, however, does not fit with the basic concepts that the person providing services is responsible not for the quality of the wood but for his work and that the measurement of the wood is intended to reflect and quantify the work performed, not the wood's quality. Accordingly, the rules provide that in payment for services transactions, the person requiring services may cull (not measure) wood which is not properly prepared (that is, not designated for harvesting and yarding, or not prepared as directed), but he may not measure it and measure it and represent the quantity as less than the full measurement, or otherwise partly measure it.

On a related issue, some commentators argued that a person requiring services should be allowed to reject an entire pile or load of wood where any portion of the pile or load was improperly prepared. In light of the explicit requirement that properly prepared wood must be measured in full, it would not seem correct to authorize the person requiring services to refuse to measure properly prepared wood because some other wood was not prepared as directed.

With respect to sales transactions, in keeping with the concept that sellers are responsible for the quality of their product, the statute allows buyers to include wood quality specifications in their sales contracts and otherwise to buy wood according to the terms of the sales contract, subject to measurement standards applicable to the sale wood. While buyers, like persons requiring services, may also cull (not measure) wood which does not meet their specifications, the rules permit buyers to take deductions from the full measure of wood which does not meet their quality requirements, unless to do so would be inappropriate to the systems of measurement used (as, for example, where count scale is used). The quality defects for which buyers to take deductions must be specified in the wood quality specifications.

On the question of rejection of an entire pile or load where some portion of the wood does not meet specifications, the buyer has greater freedom. In a casual sale, where no contract exists, the buyer is free to take or reject all or any part of what is offered. Where there is a contract, its terms govern on this question, subject to restrictions imposed by other law, such as the Uniform Commercial Code.

On one provision (10 M.R.S.A. §2364-A, sub-§4), the statute at first reading may appear to blur the distinction between payment for services transactions and sales transactions. Upon analysis, it becomes apparent that the provision in question is addressed to a particular and not uncommon situation in the industry in which a single transaction includes both a sale of wood and the provision of services on the wood. The statutory provision appropriately applies the basic requirements for services transactions to this situation. The legislative history indicates that the legislature viewed this provision as promoting more responsible accountability in wood transactions. See, House Amendment "A" to Senate Amendment "A" to L.D. 2404, and its Statement of Fact. The rules explicate the application of those requirements.

Quality Defects and Quantity Factors

One commenter suggested that defects historically and commonly viewed as affecting the quality of the wood should be seen as affecting its quantity, since less wood may be present or the wood may not be fully usable for a particular intended purpose. Following this reasoning, the commenter suggested that the statutory provision allowing "reasonable deductions for quantity factors" be interpreted to allow deductions for the kinds of defects which are commonly viewed as affecting wood quality. This interpretation does not seem correct in light of the language and legislative history of the statute, which reflect the traditional understanding of and distinction between quality defects and quantity factors. For instance, the statute gives, as examples of quantity factors, loose piling, short or undersized wood or wood not designated to be harvested, hauled or chipped. Further, while this interpretation would turn the traditional understanding on its head, it would at the same time ensure the continuation under the new law of discounting practices followed under the old law and rules. The statute and its history indicate that the legislature viewed these practices as unfair and inappropriate where payment is made for services and intended that the new law should eliminate them. The rules, in retaining the traditional distinction between quality defects and quantity factors, reflect that intention. On this issue, it is instructive to compare LD 2404 to House Amendment "A" to LD 2404 and its Statement of Fact, paragraph 1. LD 2404 was enacted; the amendment was not.

Written Specifications

In addition to the clear intent to bring fundamental weights and measures concepts to bear on the measurement of wood, a second major theme runs through the statute. This is the theme of accountability, represented by provisions which require that wood transactions be conducted in accordance with written specifications, as well as those provisions which require that the measurement of the wood involved be documented in writing.

With respect to written specifications, the proposed rules set forth general requirements for furnishing cutting specifications where payment is made for services in harvesting. Commentors requested that we clarify what information was required in these specifications. They also asked that the hauling and in the case of sales transactions. The adopted rules include provisions which respond to these comments, as discussed in the following three paragraphs.

Cutting Specifications

In payment for services in harvesting, written cutting specifications, furnished prior to the performance of the services, tell the person providing services which trees to cut and how to prepare the wood, as, for example, by limbing, topping and bucking. The directions for preparation will vary in detail depending on the production form required. Since deductions based on wood quality are prohibited in payment for services transactions, any discounting provision which appear in the cutting specifications must be disregarded in measuring the wood for purposes of payment. In keeping with the legislative intent, the cutting specifications must provide a single set of directions for what is to be harvested and prepared and what is to be measured. See, L.D. 2404, paragraph 3, p. 10.

Hauling Specifications

The written hauling specifications identify the wood to be hauled. In the adopted rules, no written hauling specifications are required where the hauler himself is not responsible for deciding which wood is to be hauled. Where the hauler is responsible for deciding which wood is to be hauled, written hauling specifications must be furnished.

Wood Quality Specifications in Sales

In sales transactions, written wood quality specifications are required. The wood quality specifications describe wood which the buyer will purchase and, if the buyer wishes to take deductions from full measurement based on wood quality, the wood quality specifications must indicate the quality defects (called in the rules "scaling defects") for which deductions will be taken. Where there is a sales contract, the wood quality specifications must be included in it. In a casual sale, where there is no contract, the wood quality specifications must be furnished to the seller by the buyer before the buyer measures or takes possession of the wood. In the absence of wood quality specifications, no deductions from gross scale may be taken.

We turn now to discussion of comments related to particular points in the rules.

Place of Measurement in Payment for Services Transactions

From the standpoint of weights and measures and its fundamental concept of verifiability, it would be preferable to

require that all wood involved in a transaction for payment for services in harvesting be measured before it is removed from the harvesting area. While there are places where such a general requirement or practice exists (for example, in Ontario, Canada), it has not been industry practice in Maine and the legislation does not impose such a requirement. Consequently, the rules permit wood to be removed from the harvesting area prior to its measurement under certain conditions intended to insure verifiability.

Given that wood may be measured off the site of the harvesting area, the next most preferable way to insure verifiability in payment for services would be to require that all wood harvested in Maine be measured in Maine. Again, the legislation does not impose such a requirement. It does, however, treat as a privilege the ability to measure outside of Maine wood harvested within Maine. In a payment for services transaction, a person requiring services is privileged to measure outside of the state wood harvested within the state only so long as conditions insuring accuracy and verifiability and verifiability exist. When the State Sealer has reason to believe that those conditions do not exist, the person requiring services no longer has the privilege and must measure wood before it leaves the state. Clear understanding of the nature of the privilege, the conditions for its exercise and the requirement of in-state measurement requires that the relevant statutory section (10 M.R.S.A., §2364-A, sub-§3), be read together with the legislative history. See remarks of Representative Mulholland and Senator Carpenter, Senate and House Records for April 12, 1984, in Legislative Record 11th Legislature, Second Regular Session, 1984, pages 667 and 688; and see L.D. 2404, section 7(3) and its Statement of Fact, paragraph 10, together with House Amendment "D" to L.D. 2404.

The "15-day", or "Green Wood", Rule

The statute provides that if wood is not or will not be weighed within 15 days of felling, the person providing services in harvesting may require that the wood be measured by a method other than weighing. The statute also authorized the State Sealer to modify this provision. In the proposed rules, the statutory 15-day rule was included without modification. Many commentators asked that the authority to modify the rule be exercised.

There are strong arguments for retaining the 15-day rule without modification. Harvested wood loses weight as it loses moisture. Also, prompt measurement increases verifiability and accountability. The legislative history demonstrates that the 15-day period was specifically discussed. See, Senate Amendment "A" to L.D. 2404.

However, in the winter months wood loses moisture more slowly. Also, during the winter months it may be more difficult to haul wood promptly and predictably, given snow and road conditions. Road conditions continue to hamper the hauling of wood in the early spring and mud season. On the basis of these considerations, together with the fact that, under the statute, weight scales can only be used where its use is agreed on by the parties, we have decided to modify the 15-day rule. Between May 16 and October 31, the 15-day rule applies; between November and May 15, the time period is enlarged to 30 days. As it no longer specifies only 15 days, the rule has been renamed the "Green Wood" rule.

Trim Allowances

Several commentors objected to the proposed provision limiting the trim allowance in log scale to a maximum of 6 inches. They pointed to a variety of situations and practices in the industry, asserting the need for greater flexibility in specifying trim allowances. Some commentors suggested different allowances for different production forms, and some suggested allowing persons requiring services and buyers to specify any trim allowances. Others commented that allowing a trim allowance of more than 4 inches promoted poor utilization of limited forest resources. Still others observed that trim allowances have the effect of exchanging a larger amount of wood for a given price or payment. Weighing these considerations, where log scale is used the adopted rules permit persons requiring services and buyers to specify up to 5 inches for trim allowance without including the extra inches in the scaling length. If the trim greater than 5 inches is specified, the scaling length must be increased to the next whole foot interval.

Holding and Impounding of Wood

Many commentors, in testimony and written comments, worried that the provisions in the proposed rule regarding the holding of wood for investigation would seriously interfere with the general movement of wood from forest to end product. These provisions have been rewritten in the adopted rules. Many commentors pointed out that it was possible to read in the provisions as proposed a requirement that persons requiring services and buyers would have to hold all wood for a period of time, during which a complaint with respect to that wood could be filed. Since such a reading was not what was intended, there was obviously a need for clarification. The adopted rules clarify the concept that wood continues to move through the system until one of two things happens:

1) a complainant gives notice to the person with possession or control of the wood that he has filed or will file a complaint with respect to the measurement of specific, separately identifiable wood, or 2) the State Sealer issues an order impounding specifically identified wood. Only upon the occurrence of one of these two events must wood be held. Further, when a complainant gives notice to hold disputed wood but has not yet filed a complaint, the must file the complaint within a limited time period which is never longer and may often be shorter than the maximum 15 days which the statute provides for the filing of such complaints. Other provisions flesh out and make more explicit the requirements placed on these situations and the consequences of failing to meet those requirements.

Expression of butt scale measurements in standard cord units

A question was raised about the expression in standard cords of the computed cubic volume of individual stems and pieces measured by the butt scale method. The question was the appropriate factor to be used in translating the cubic volume into standard cords; a correlative question is whether bark may be treated as a scaling defect in computing standard cord volumes.

In butt scaling of tree length wood, only the diameter of the butt is measured. From that measurement the cubic volume of the stem is computed using a formula or table designed for the purpose. Direct expression of the measured quantity is in cunits (cubic units), where 100 cubic feet of wood (or any solid) equals one cunit.

Expression in standard cords requires the translation of the cubic volume into standard cord units. However, there is no absolute factor for the translation, because the unit of measure of a solid while the standard cord is a unit of measure of a space which is occupied by wood, bark and air. There being no absolute factor, the choice of any factor is in some degree arbitrary and inexact.

In considering this issue, one question is unavoidable: why make any translation from cunits to standard cord units? To do so is, in effect, to make a conversion between systems of measurement, which the statute clearly seeks to discourage where it does not prohibit it outright. The conversion serves no measurement purpose and promotes confusion and misunderstanding. It is difficult to square the practice with the fundamental weights and measures concepts, discussed above.

Industry, however, has been reluctant to forego the option of expressing the quantity of butt scaled wood in standard cord units, and the practice appears fairly widespread. In view of the fact that after March 31, 1986, the use of butt scale is permitted only in sales transactions, we allow the conversion practice to continue, though we are not without doubts in doing so.

As conversion to standard cords is allowed, the conversion factor must be chosen. While the standard cord occupies 128 cubic feet of space, it does not contain 128 cubic feet of wood. It contains wood and air in varying amounts, depending on such factors as wood species, the form of the sticks or bolts, their length and the manner in which the wood is stacked. It is clear from the technical authorities, as well as from the comments, that any factor chosen represents at best some sort of average. From the offered choices, we have selected the factors of 85 cubic feet of solid volume per standard cord of softwood and 80 cubic feet of solid volume per standard cord of hardwood. These factors are inclusive of bark. Where the quantity of butt scaled wood is expressed in standard cord units, bark may not be treated as a scaling defect. This approach is consistent with the statutory definition of standard cord, which expressly includes bark. In contrast, when butt scaled wood is represented in cunits, net scale may exclude bark.

The question raised and the decisions made on these and other technical points may merit further investigation. We are willing to undertake further study and rulemaking at the request of interested persons.

Tolerances In Check Measurement

Several commenters pointed out the need for a provision establishing that a measurement of wood was accurate if a check measurement agreed with the original measurement within a specified tolerance. We agree that such a provision is necessary and have included it in the adopted rules.

Double draft weighing

One commenter urged the adoption of a provision which would permit double draft weighing of loaded trucks, presently prohibited under Maine law in the absence of a rule to the contrary. Under National Bureau of Standards (NBS) provisions, double draft weighing is not permitted and our understanding is that the NBS does not regard the method as sufficiently accurate.

While better accuracy can apparently be obtained under particular, carefully controlled conditions, we are not persuaded that the necessary conditions are well enough understood nor are we persuaded that it is possible to ensure the existence of the conditions each time double draft weighing is done.

Further, the ability to do double draft weighing is of interest to other industries and parties. We believe it is more appropriate and more fair to consider the matter in a more general context, in which all interested parties may participate.

For these reasons, we have not included in the rules a provision authorizing the use of double draft weighing. Instead, in the near future we will institute separate rulemaking proceedings addressed to this issue.

Scaler Licensing

The legislation authorizes and the proposed rules included a program to license scalers of wood. While some commenters felt that such a program was not necessary, others, including scaler, supported the proposal. The adopted rules retain scaler licensing. In many systems of wood measurement, scalers are called upon to exercise a great deal of judgment, perhaps more than is required in the measurement of any other commodity. The scaler applies the measurement system and makes the record of its application; thus, his work is crucial not only to obtain an accurate measurement but to insure its verifiability. The human scaler, not a mechanical device, is the measuring instrument in all wood measurement systems except measurement by weight. Ensuring the competency of a scaler is analogous to the calibration of a mechanical device: both are intended to achieve accuracy.

The details of the licensing program have been modified in the adopted rule in response to comments asking for greater flexibility in requirements for obtaining a license and for greater flexibility in dealing with temporary inability to obtain the services of a licensed scaler. The adopted rule also includes provisions which make explicit the conditions upon which a license is issued.

Some commenters observed that it was unnecessary to require that persons be licensed as scalers when their sole function in the measurement of wood is to read or record the numbers on a scale when wood is weighed. The adopted rule excludes such persons from the licensing requirement, provided that in the course of their function they make no judgment calls (as, for

example, with respect to quality specifications or culling). Such persons of course remain subject to the general requirement of accuracy in measurement and in its representation, and to enforcement action for violation of that requirement.

A license is also not required for the measurement of firewood in consumer transactions on the retail market. Commenters took varying positions on this exclusion. The legislative history reveals that the Legislature was not addressing consumer transactions. For that reason and because there are other remedies available to the consumer, we have decided to make this exclusion.

The adopted rule contemplates a program ensuring the competency of licensed scalers, rather than a detailed evaluation of competency (as, for example, by testing) prior to issuing a license. Because of this, a provision for spot checking of scalers' work by the State Sealer is included in the adopted rule.

Complaints and Investigations

The proposed rules treated all complaints in the same way. A closer reading of the statute, helped by the light of comments, indicates that the statute explicitly provides for a specific class of complaints (called, in the adopted rules, "disputed wood" complaints, after the heading of the corresponding statutory provision, 10 M.R.S.A. §2366-A) and that another class of complaints (called, in the adopted rule, "general" complaints) was contemplated by the Legislature. The rules provide differently for the filing and investigation of the two classes complaints.

While one commenter suggested that the investigation of complaints be undertaken as an adjudicatory proceeding subject to the Administrative Procedure Act, we have declined to follow the suggestion. The adopted rules, however, provide in greater detail than did the proposed rules for the fair, informal procedure which will be followed in investigations.

Effective Date; Transition; Compliance

The Wood Measure Law provides that these rules become effective on April 30, 1985. Prior to that date, the present Wood Measurement Rules remain in effect. Therefore, until April 30, 1985, conduct which is in compliance with the old rules is not illegal under these new rules even if it is not in compliance with them.

It is clear that the Legislature contemplated a period of transition between the passage of the law and the effective date of the rules, during which period the industry would become familiar with the changes in the law and with the new rules and make any necessary adjustments in its practices. Accordingly, during the transition period, persons who are in the process of changing their practices to meet the requirements of these new rules will not be subject to enforcement action where the changed practices are not in accordance with the old rules.

With respect to compliance after these rules become effective on April 30, 1985, and without limiting its ability to take full enforcement action in an egregious situation, the Department's principal expectation and concern, for a period of time, will be that the industry take affirmative good faith steps to make the adjustments necessary to comply with these rules. The Department is prepared, to the extent of its available resources, to participate and assist in making these adjustments.

01 DEPARTMENT OF AGRICULTURE, FOOD AND
RURAL RESOURCES
001 DIVISION OF REGULATIONS

CHAPTERS 380-385 WOOD MEASUREMENT RULES

BASIS FOR ADOPTION OF AMENDMENTS
PROMULGATED JULY, 1986

In 1985 when we adopted the current Wood Measurement Rules, we stated in the Basis Statement that we would remain open to considering amendments to the rules where they proved to be unworkable, in need of clarification, or if there were problems that we had not dealt with appropriately. During the course of the year we have received suggestions from various members of the industry about possible changes in the rules. Other changes were suggested in the course of the 1985 legislative session, when there were proposals to amend the Wood Measurement Law itself. We told the Legislature that we were already planning to hold rulemaking proceedings to address various issues that had been raised with respect to the rules. The adoption of the amendments discussed in this Basis Statement is the culmination of those rulemaking proceedings.

General Considerations. In Maine, wood is measured for payment for services based on piece rate units, and for sale of wood as a commercial product meeting certain merchantability specifications. In applying general weights and measures principles to these different wood transactions, the Wood Measurement Law and Wood Measurement Rules require that the measurements used are suitable for the purpose for which they are made, and that basic principles of accountability are followed.

In the context of the law, the rules also attempt to establish uniform standard procedures and at the same time to accommodate the diversity and complexity of industry practices. In general the rules allow for diversity, provided that basic measurement principles and procedures are fairly applied and accountability is not undermined. The result of this accommodation is, of course, that the rules are far longer and more complex than they would otherwise be.

We now address specific changes in the rules.

Revision of the Prohibition Against Underscaling. One commenter pointed out that the general prohibitions address underscaling but not overscaling. In response, we have included overscaling in the general prohibition and have clarified when the prohibitions apply. While accuracy in all wood measurement

and the use of uniform measurement systems are important, the scope of the general prohibitions does not extend to measurements made for purposes other than for payment for services or in a sale transaction. For example, measurements made for internal inventory purposes, for sampling for quality control, or measurements made by workers for the convenience of the company's scaler, are not within the scope of the prohibitions. Chapter 381, section 1, of the revised rules now makes this distinction. Likewise, in Chapter 382, section 2, the revised rules clarify that conversions between measurement systems are not prohibited for inventory purposes unrelated to payment for the wood.

Licensing of Consumer Firewood Dealers. Some commentators asked that the scope of the licensing requirements be extended to include those who measure firewood in consumer transactions on the retail market. While the statute (10 MRSA section 2362-A) provides that the Wood Measurement Law is not meant to supersede or modify the measurement standards for fuel wood that are contained in 10 MRSA section 2302(1), this does not in itself prevent the licensing of consumer firewood dealers. The Department has some latitude regarding the scope of the wood scaler licensing program and we have so far concluded that consumers purchasing firewood on the retail market generally have reasonable legal protection because they are covered by consumer protection laws. We do not rule out further consideration of the licensing of all firewood dealers regardless of the type of transaction involved, but if such rule-making is undertaken, it would be in the context of rulemaking proceedings designed to provide firewood dealers and consumers with notice and the opportunity to comment on any proposed rule.

Handling of Culled Wood. Since the Wood Measurement Rules were promulgated last year, the Department has received comments that the provisions relating to improperly prepared wood and culled wood were difficult to understand. An example of a resulting problem was where landowner or mill foresters directed cutters to harvest stems that were not included in the cutting specifications, and then the contractor marked these same stems as culls and did not scale them for purposes of payment for services. (This interpretation is incorrect. All wood designated to be harvested must be measured for payment for services.) Contractors expressed concern that because improperly prepared wood must be culled at the harvesting site they would have to employ a licensed scaler at the logging operation. (This interpretation is also not intended. Culling at the harvesting site is the determination whether the cutters followed the cutting specifications, that is, whether

they did their job as directed. This determination of what will or will not be measured does not require a licensed scaler, though it may be done by a scaler. For measurement accountability, what is important is that pieces said to have been improperly prepared are identified at the harvesting site where the person providing the services has the opportunity to review the wood in question.)

In response to these concerns, the Department revised and reorganized the relevant provisions of the rules, while retaining the same basic approach. The written cutting specifications designate the wood to be harvested and how it is to be prepared. If the wood is not properly prepared, then the person requiring the services culls it at the harvesting site. Any wood that was not culled, but was instead hauled, is considered to have been properly prepared and must be measured in full. The person providing the service has the opportunity to review and correct the improperly prepared wood at the site and, if the person providing the services agrees that it is improperly prepared but does not correct it, then the culled wood may be excluded from measurement for purposes of calculating payment for services.

Measurement Tally Sheet Information and Accounting for Culled Wood. In the revised rules the information required on the measurement tally sheet has been reduced to the minimum possible without undermining accountability. In the case of a sale, actual scaling measurements may be omitted by agreement of the parties. For example, in a sale based on log scale, the gross scale and any deductions are required for each log but the scaling measurements (log length or top end diameter) are not required.

With respect to culled wood, the revised rules require that in service transactions, the tally sheet also include the actual or an estimated measurement of any wood that is culled after it has been removed from the harvesting site. This measurement information is critical to the accountability to those whose pay is based on off-site measurements. To take into account those situations where a third party (e.g. a mill) culls the wood without measuring it, the person requiring the services (e.g. the contractor) is only required to provide a reasonable estimate of the measurement of the culled wood. To avoid disputes concerning what is "reasonable" estimate, the parties might agree in advance to a designated weight or scale for any pieces culled after removal from the harvesting area.

Measurement and Prompt Furnishing of the Measurement Tally Sheet. The Wood Measurement Law provides for the prompt furnishing of measurement tally sheets in payment for services. Contractors and woodworkers pointed out that the original rules were ambiguous as to whether the person requiring the service

could refuse to measure the wood for an indefinite period of time, so long as the tally sheets were provided promptly once measurement occurred. The revised rules make it clear that as a general rule the measurement of wood and the furnishing of the tally sheet must be done within fifteen days of when the services in harvesting or hauling were rendered. In keeping with the relevant statutory provision, there is an exception for wood that is weight scaled where the weighing will not be done within fifteen days. Under those circumstances, the wood may be measured by an alternative method of measurement, or under certain conditions the wood may be weighed at a later date. In the case of delayed weight scale the person providing the services must be given a written record of the wood in question to account for the wood during the delay.

Revisions in Measurement Standards and Procedures. Many changes were made in response to requests to modify various measurement standards, to permit alternative measurement procedures, and generally to make the measurement procedures more flexible. Major changes include the following:

Weight Scale -- Deductions for Defects. The Department solicited suggestions for an appropriate standard method of making deductions in weight scale where a sale transaction is involved. Although the Department did not receive any workable suggestions, the rules have been changed to permit deductions in weight scale following approval by the State Scaler of the proposed method.

Butt Scale -- Expression of Butt Scale Measurements and Standard Cord Units. The subject of translating butt scale measurements into standard cord units was discussed in the basis statement for the original rules. At that time we indicated our willingness to undertake further rulemaking in regard to the question of the number of cubic feet in a standard cord and the appropriate manner for handling bark in making this measurement conversion. The framework for our evaluation included the following:

1. From a weights and measures perspective, the quantity of butt scaled wood is best expressed in cunits, that is 100 cubic foot units, without any subsequent conversion to standard cord units.
2. There is no absolute conversion factor between cubic feet of tree length wood including bark, and a standard cord of bucked stems measured as a pile inclusive of bark and air.

3. The statutory definition of a standard cord expressly includes bark. In contrast, the measurement of wood in cubic feet or cunits may or may not be inclusive of bark.
4. Butt scale is a complex method of measuring wood involving several equations to translate the single diameter measurement made by the scaler. Butt scale is however no longer permitted in the case of payment for services.

In response to one commenter's request for rulemaking in this area several revisions were made. The Rules no longer prescribe uniform conversion factors to be used at all times, but now permit the parties to agree on alternative factors. The revised rules also permit the conversion of standards cords to be calculated based on inside bark measurements and volumes. These changes will allow parties the flexibility they sought and at the same time will encourage awareness by all parties of the conversion calculations involved when butt scale is used.

Cubic Foot Measure -- The Appropriate Method of Calculating Cubic Volume. The original rules provided one standard equation for calculating cubic volume. That equation assumed each stem or piece to be a cylinder having a mid section area equal to the average area of the two end surfaces of the measured stem. This is the same formula that was in force prior to the revision of the Wood Measurement Law in 1984. In response to a request, the rules have been revised to permit the use of alternative formulas for calculating cubic feet upon approval by the State Sealer. An example of an alternative formula is "Newton's Formula" which is based on the concept of a frustrum of a cone rather than a simple cylinder. This formula is more complex but some in the industry consider it more precise.

Butt Diameter Measurement Procedures. One commentor asked that we revise the rules to permit butt diameter measurements to be based on the average measurements of the long and short way across the butt surface. The current rules require the butt diameter measurement to be made the short way across. We understand that some woodworkers see this as unfair and less accurate than basing the calculation on the average of the long and short way across. We appreciate that concern but conclude that having one standard method is preferable. That uniform standard is set forth in the statutory definition of butt diameter and is based on measuring from "outside the bark the short way through the center, disregarding crevices and cracks."

Some of the other changes in measurement procedures made to accommodate the industry are:

1. In chip volume scale, allowing the parties to agree where and when the volume of the chips will be measured.
2. In log scale, increasing the standard trim allowance from five to six inches. Some constituencies have been concerned that a trim allowance of anything in excess of four inches is contrary to good utilization and less accurate and fair to persons providing services. Despite these concerns, we have made this change in response to the Department of Conservation's position that sometimes six inches of trim is reasonable.
3. Again in the context of trim allowance in log scale, an exception has been made to the standard procedure for calculating the allowance on each individual piece. Those who purchase bolts in a standard length or multiples thereof will now be able to use a two inch trim allowance per standard length no matter how many multiple lengths are contained in the bolt.

01 DEPARTMENT OF AGRICULTURE, FOOD & RURAL RESOURCES

001 BUREAU OF PUBLIC SERVICE
DIVISION OF REGULATIONS

CHAPTER 382 MEASUREMENT OF WOOD AND DECLARATION OF QUANTITY
(AMENDMENT)

BASIS STATEMENT
Adopted July 22, 1987

This is an amendment to rules authorized and required by 10 MRSA § 2367, and is adopted to further implement the revised Wood Measurement Law, P.L. 1984, c. 804. A Rulemaking hearing relative to the subject matter of this amendment was held on March 25, 1987.

The purpose of the amendment is to allow the determination of moisture content of wood and thereby permitting the calculation of dry weight of wood by using certain methods other than the oven dried method. In particular, it would permit the use of infra-red moisture analysis. This technology is superior in accuracy to the oven dried method in that it is able to analyze and calculate an average percentage of a great number of samples in a short period of time. The oven dried method involves the analysis of only a few grab samples from a load.

No one at the hearing spoke in opposition to the proposed rule amendments and no negative comments were received within the period. One company testified in favor of the proposed amendments. Their testimony, together with various exhibits used in the hearing, established that they had been using a Quadra-beam infra-red moisture analyzer device on a trial basis. Results using the infra-red technology and the traditional oven dried method were consistent. The infra-red device, was able to analyze a much larger sample of the entire load than the grab samples used in connection with the oven dried method, was thought to have greater statistical reliability. The oven dried method requires a minimum of 12 hours for moisture determination whereas the infra-red method permits analysis within 15 minutes.

It was noted that some problems had been experienced with the infra-red device when wood was moving between a frozen and a thawed state. As the frozen wood begins to thaw, a process called wicking takes place which results in excessive moisture on the surface of the wood. This produces artificially high moisture readings.

Various means of correcting these readings were discussed including the possibility of changing the calibration on the infra-red moisture analyzer, and changing the weighting of certain factors contained in the computer program. These possibilities were discounted as tending to circumvent the intent and integrity of the state sealing process. In order to address this issue, Section 6 (J) (2) (b) (5) was added to the original proposed rule.

One commentor raised the question of whether the infra-red method was intended to be used in connection with anything other than wood chips. It is noted that other portions of Section 6 (J) (1) and (2) speak in terms of "wood", but Section 6 (J) (2) (b) (5) speaks in terms of "chips". While it is apparent from the testimony that the infra-red method could be used to measure the moisture content of samples of wood other than chipped wood, it also seems clear that the intent of the proponents of the rule was that the infra-red method be used to measure moisture in wood chips.

Costs to the State of this rule are expected to be minimal. A site visit by the State Sealer would be necessary in the event of recalibration of the infra-red device. Fast and efficient as well as accurate moisture determination will have positive economic effects for private sector users of the system.

01 DEPARTMENT OF AGRICULTURE, FOOD AND RURAL
RESOURCES

001 DIVISION OF REGULATIONS

CHAPTERS 380-385 WOOD MEASUREMENT RULES
(Addition of New Measurement System:
Sample Scaling, TO CHAPTER 382, SECTION 6,
and corollary amendments to Chapters 380 and
383).

**BASIS STATEMENT FOR ADOPTION OF AMENDMENTS
PROMULGATED SEPTEMBER 6, 1988**

The amendment to Chapter 382, section 6, is an addition to rules authorized and required by 10 M.R.S.A. Section 2367 to further implement the revised Wood Measurement Law, as enacted by P.L. 1984 c. 804. A rulemaking hearing on the proposed amendment was held on April 25, 1988.

The purpose of the amendment is to allow Sample Scaling as an acceptable method of scaling wood in sale transactions. Sample scaling refers to the practice of measuring a representative sample of wood to determine the total scale within reasonable limits of accuracy. According to one recognized authority, the National Forest Log Scaling Handbook, the statistical accuracy of the sample may be affected by factors such as (1) the desired accuracy at a prescribed level of probability, (2) the total number of sampling units in the population and (3) the variation among the sampling units. Most forest mensuration textbooks, as well as the National Forest Log Scaling Handbook, recognize sample scaling as an acceptable scaling method under certain conditions. The basic objective of sample scaling is to increase scaling efficiency on large quantities of wood without unduly sacrificing accuracy. The advantage of sample scaling is a savings in scaling time and cost.

There is general approval by the affected public to the proposal to allow sample scaling in sale transaction where agreed upon by the parties. The value of sample scaling is most evident in transactions involving very large quantities of wood and therefore, is likely to be used between buyers and sellers each of whom possess substantial bargaining power.

At the public hearing a suggestion was made by a representative from a paper company that sample scaling also be permitted in payment for services transactions. Prior to issuing the proposed rule, we considered and rejected that same suggestion. Sample scaling is not sufficiently accurate to be applied to the amount of wood in a service transaction involving one individual or a crew. Also parties to a service transaction may not be in a position to fully evaluate a particular sample scaling proposal.

During the comment period Department personnel suggested that the final rule incorporate a procedure to require that any sample scaling system be approved in advance by the State Sealer.

The final rule contains a procedure for approval by the State Sealer. This procedure will allow us to raise any questions or concerns we may have in advance of parties commencing use of the system.

A number of changes were also made in the proposed rule for purposes of clarification and simplification. Also, several corollary amendments were made to properly incorporate sample scaling into the other interrelated sections of the rules.

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