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TABLE OF CONTENTS

Register Information Page	1921
Publication Schedule and Deadlines	1922
Petitions for Rulemaking	1923
Notices of Intended Regulatory Action	1924
Regulations	1925
12VAC30-70. Methods and Standards for Establishing Payment Rates - Inpatient Hospital Services (Final).....	1925
12VAC30-80. Methods and Standards for Establishing Payment Rates; Other Types of Care (Final)	1925
12VAC30-90. Methods and Standards for Establishing Payment Rates for Long-Term Care (Final)	1925
16VAC25-73. Tree Trimming Operations (Final)	1934
16VAC25-175. Federal Identical Construction Industry Standards (Final).....	1964
Guidance Documents	1966
General Notices/Errata	1969

THE VIRGINIA REGISTER INFORMATION PAGE

THE VIRGINIA REGISTER OF REGULATIONS is an official state publication issued every other week throughout the year. Indexes are published quarterly, and are cumulative for the year. The *Virginia Register* has several functions. The new and amended sections of regulations, both as proposed and as finally adopted, are required by law to be published in the *Virginia Register*. In addition, the *Virginia Register* is a source of other information about state government, including petitions for rulemaking, emergency regulations, executive orders issued by the Governor, and notices of public hearings on regulations.

ADOPTION, AMENDMENT, AND REPEAL OF REGULATIONS

An agency wishing to adopt, amend, or repeal regulations must first publish in the *Virginia Register* a notice of intended regulatory action; a basis, purpose, substance and issues statement; an economic impact analysis prepared by the Department of Planning and Budget; the agency's response to the economic impact analysis; a summary; a notice giving the public an opportunity to comment on the proposal; and the text of the proposed regulation.

Following publication of the proposal in the *Virginia Register*, the promulgating agency receives public comments for a minimum of 60 days. The Governor reviews the proposed regulation to determine if it is necessary to protect the public health, safety and welfare, and if it is clearly written and easily understandable. If the Governor chooses to comment on the proposed regulation, his comments must be transmitted to the agency and the Registrar no later than 15 days following the completion of the 60-day public comment period. The Governor's comments, if any, will be published in the *Virginia Register*. Not less than 15 days following the completion of the 60-day public comment period, the agency may adopt the proposed regulation.

The Joint Commission on Administrative Rules (JCAR) or the appropriate standing committee of each house of the General Assembly may meet during the promulgation or final adoption process and file an objection with the Registrar and the promulgating agency. The objection will be published in the *Virginia Register*. Within 21 days after receipt by the agency of a legislative objection, the agency shall file a response with the Registrar, the objecting legislative body, and the Governor.

When final action is taken, the agency again publishes the text of the regulation as adopted, highlighting all changes made to the proposed regulation and explaining any substantial changes made since publication of the proposal. A 30-day final adoption period begins upon final publication in the *Virginia Register*.

The Governor may review the final regulation during this time and, if he objects, forward his objection to the Registrar and the agency. In addition to or in lieu of filing a formal objection, the Governor may suspend the effective date of a portion or all of a regulation until the end of the next regular General Assembly session by issuing a directive signed by a majority of the members of the appropriate legislative body and the Governor. The Governor's objection or suspension of the regulation, or both, will be published in the *Virginia Register*. If the Governor finds that changes made to the proposed regulation have substantial impact, he may require the agency to provide an additional 30-day public comment period on the changes. Notice of the additional public comment period required by the Governor will be published in the *Virginia Register*.

The agency shall suspend the regulatory process for 30 days when it receives requests from 25 or more individuals to solicit additional public comment, unless the agency determines that the changes have minor or inconsequential impact.

A regulation becomes effective at the conclusion of the 30-day final adoption period, or at any other later date specified by the promulgating agency, unless (i) a legislative objection has been filed, in which event the regulation, unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the 21-day objection period; (ii) the Governor exercises his authority to require the agency to provide for additional public comment, in which event the regulation,

unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the period for which the Governor has provided for additional public comment; (iii) the Governor and the General Assembly exercise their authority to suspend the effective date of a regulation until the end of the next regular legislative session; or (iv) the agency suspends the regulatory process, in which event the regulation, unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the 30-day public comment period and no earlier than 15 days from publication of the readopted action.

A regulatory action may be withdrawn by the promulgating agency at any time before the regulation becomes final.

FAST-TRACK RULEMAKING PROCESS

Section 2.2-4012.1 of the Code of Virginia provides an exemption from certain provisions of the Administrative Process Act for agency regulations deemed by the Governor to be noncontroversial. To use this process, Governor's concurrence is required and advance notice must be provided to certain legislative committees. Fast-track regulations will become effective on the date noted in the regulatory action if no objections to using the process are filed in accordance with § 2.2-4012.1.

EMERGENCY REGULATIONS

Pursuant to § 2.2-4011 of the Code of Virginia, an agency, upon consultation with the Attorney General, and at the discretion of the Governor, may adopt emergency regulations that are necessitated by an emergency situation. An agency may also adopt an emergency regulation when Virginia statutory law or the appropriation act or federal law or federal regulation requires that a regulation be effective in 280 days or less from its enactment. The emergency regulation becomes operative upon its adoption and filing with the Registrar of Regulations, unless a later date is specified. Emergency regulations are limited to no more than 12 months in duration; however, may be extended for six months under certain circumstances as provided for in § 2.2-4011 D. Emergency regulations are published as soon as possible in the *Register*. During the time the emergency status is in effect, the agency may proceed with the adoption of permanent regulations through the usual procedures. To begin promulgating the replacement regulation, the agency must (i) file the Notice of Intended Regulatory Action with the Registrar within 60 days of the effective date of the emergency regulation and (ii) file the proposed regulation with the Registrar within 180 days of the effective date of the emergency regulation. If the agency chooses not to adopt the regulations, the emergency status ends when the prescribed time limit expires.

STATEMENT

The foregoing constitutes a generalized statement of the procedures to be followed. For specific statutory language, it is suggested that Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia be examined carefully.

CITATION TO THE VIRGINIA REGISTER

The *Virginia Register* is cited by volume, issue, page number, and date. **26:20 V.A.R. 2510-2515 June 7, 2010**, refers to Volume 26, Issue 20, pages 2510 through 2515 of the *Virginia Register* issued on June 7, 2010.

The *Virginia Register of Regulations* is published pursuant to Article 6 (§ 2.2-4031 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia.

Members of the Virginia Code Commission: **John S. Edwards**, Chairman; **Bill Janis**, Vice Chairman; **James M. LeMunyon**; **Ryan T. McDougle**; **Robert L. Calhoun**; **Frank S. Ferguson**; **E.M. Miller, Jr.**; **Thomas M. Moncure, Jr.**; **Patricia L. West**; **Charles S. Sharp**.

Staff of the Virginia Register: **Jane D. Chaffin**, Registrar of Regulations; **June T. Chandler**, Assistant Registrar.

PUBLICATION SCHEDULE AND DEADLINES

This schedule is available on the *Register's* Internet home page (<http://register.dls.virginia.gov>).

March 2011 through March 2012

<u>Volume: Issue</u>	<u>Material Submitted By Noon*</u>	<u>Will Be Published On</u>
27:15	March 9, 2011	March 28, 2011
27:16	March 23, 2011	April 11, 2011
27:17	April 6, 2011	April 25, 2011
27:18	April 20, 2011	May 9, 2011
27:19	May 4, 2011	May 23, 2011
27:20	May 18, 2011	June 6, 2011
27:21	June 1, 2011	June 20, 2011
27:22	June 15, 2011	July 4, 2011
27:23	June 29, 2011	July 18, 2011
27:24	July 13, 2011	August 1, 2011
27:25	July 27, 2011	August 15, 2011
27:26	August 10, 2011	August 29, 2011
28:1	August 24, 2011	September 12, 2011
28:2	September 7, 2011	September 26, 2011
28:3	September 21, 2011	October 10, 2011
28:4	October 5, 2011	October 24, 2011
28:5	October 19, 2011	November 7, 2011
28:6	November 2, 2011	November 21, 2011
28:7	November 15, 2011 (Tuesday)	December 5, 2011
28:8	November 30, 2011	December 19, 2011
28:9	December 13, 2011 (Tuesday)	January 2, 2012
28:10	December 27, 2011 (Tuesday)	January 16, 2012
28:11	January 11, 2012	January 30, 2012
28:12	January 25, 2012	February 13, 2012
28:13	February 8, 2012	February 27, 2012
28:14	February 22, 2012	March 12, 2012

*Filing deadlines are Wednesdays unless otherwise specified.

PETITIONS FOR RULEMAKING

TITLE 12. HEALTH

DEPARTMENT OF HEALTH

Agency Decision

Title of Regulation: None specified.

Statutory Authority: § 32.1-12 of the Code of Virginia.

Name of Petitioner: Kenneth Strong.

Nature of Petitioner's Request: The petitioner requests that the Board of Health adopt, promulgate, and enforce a policy aimed at educating the public and decision makers in the environmental and health effects of extremely low frequency magnetic fields located inside high voltage electric power line right-of-ways.

Agency Decision: Request denied.

Statement of Reason for Decision: The Virginia Department of Health (VDH) issued a comprehensive report on the health effects of high voltage transmission lines to the Virginia General Assembly on October 31, 2000, which stated, "the Virginia Department of Health is of the opinion that there is no conclusive and convincing evidence that exposure to extremely low frequency electromagnetic fields emanated from nearby high voltage transmission lines is causally associated with an increased incidence of cancer or other detrimental health effects in humans." Based on information presented by the petitioner and other public comments received from November 30 to December 12, 2010, there is still no collective body of evidence available which might supercede the agency's prior conclusion. More research by the U.S. Environmental Protection Agency and other public health agencies, such as the Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry, is needed. VDH environmental epidemiology staff will continue to periodically review information obtained pertaining to this and any other environmental health issue.

The Board of Health recognizes and appreciates the petitioner's desire to promote a policy to protect public health. While the Board of Health does have a responsibility to educate the citizenry on health and environmental matters and to formulate a program of patient and community health education services, there is insufficient evidence to warrant adoption, promulgation, and enforcement of a policy aimed at extremely low frequency magnetic fields located inside high voltage (115 kilovolt and above) electric power transmission line right-of-ways at this time.

Agency Contact: Dwight Flammia, Ph.D., Public Health Toxicologist, Virginia Department of Health, 109 Governor Street, Richmond, VA 23219, telephone (804) 864-8127, FAX (804) 864-8131, or email dwight.flammia@vdh.virginia.gov.

VA.R. Doc. No. R11-18; Filed March 7, 2011, 12:54 p.m.

NOTICES OF INTENDED REGULATORY ACTION

TITLE 2. AGRICULTURE

PESTICIDE CONTROL BOARD

Notice of Intended Regulatory Action

Notice is hereby given in accordance with § 2.2-4007.01 of the Code of Virginia that the Pesticide Control Board intends to consider promulgating the following regulations: **2VAC20-60, Regulations for Pesticide Containers and Containment Under Authority of the Virginia Pesticide Control Act.** These new regulations will be equivalent to Part 165 of Title 40 of the Code of Federal Regulations, Pesticide Management and Disposal. The regulations will establish standards for (i) container design and residue removal in nonrefillable pesticide containers, (ii) container design in refillable pesticide containers, (iii) repackaging pesticide products into refillable containers, and (iv) pesticide containment structures. The promulgation of Virginia's own regulations will allow more flexibility and greater discretion in the enforcement of pesticide container and containment requirements based on Virginia's unique needs and conditions.

The agency intends to hold a public hearing on the proposed action after publication in the Virginia Register.

Statutory Authority: § 3.2-3906 of the Code of Virginia.

Public Comment Deadline: April 27, 2011.

Agency Contact: Erin Williams, Policy and Planning Coordinator, Department of Agriculture and Consumer Services, P.O. Box 1163, Richmond, VA 23218, telephone (804) 786-1308, FAX (804) 371-7479, TTY (800) 828-1120, or email erin.williams@vdacs.virginia.gov.

VA.R. Doc. No. R11-2651; Filed February 28, 2011, 4:03 p.m.

REGULATIONS

For information concerning the different types of regulations, see the Information Page.

Symbol Key

Roman type indicates existing text of regulations. Underscored language indicates proposed new text. Language that has been stricken indicates proposed text for deletion. Brackets are used in final regulations to indicate changes from the proposed regulation.

TITLE 12. HEALTH

DEPARTMENT OF MEDICAL ASSISTANCE SERVICES

Final Regulation

REGISTRAR'S NOTICE: The Department of Medical Assistance Services is claiming an exemption from the Administrative Process Act in accordance with § 2.2-4006 A 3 of the Code of Virginia, which excludes regulations that consist only of changes in style or form or corrections of technical errors. The Department of Medical Assistance Services will receive, consider, and respond to petitions by any interested person at any time with respect to reconsideration or revision.

Titles of Regulations: **12VAC30-70. Methods and Standards for Establishing Payment Rates - Inpatient Hospital Services (amending 12VAC30-70-50, 12VAC30-70-201, 12VAC30-70-351).**

12VAC30-80. Methods and Standards for Establishing Payment Rates; Other Types of Care (amending 12VAC30-80-20).

12VAC30-90. Methods and Standards for Establishing Payment Rates for Long-Term Care (amending 12VAC30-90-10, 12VAC30-90-20, 12VAC30-90-60).

Statutory Authority: § 32.1-325 of the Code of Virginia.

Effective Date: April 27, 2011.

Agency Contact: Brian McCormick, Regulatory Supervisor, Department of Medical Assistance Services, 600 East Broad Street, Suite 1300, Richmond, VA 23219, telephone (804) 371-8856, FAX (804) 786-1680, or email brian.mccormick@dmas.virginia.gov.

Summary:

The amendments are technical in nature, effecting no changes in current policies or reimbursement methodologies for Medicaid covered services. More specifically:

1. *12VAC30-70 contains the reimbursement methodology for inpatient hospital services and includes provisions for inflation, disproportionate share adjustments, incentive plans, and an outlier adjustment for most hospitals that are subject to the diagnosis related grouping (DRG) methodology as well as long stay hospitals that are not subject to DRG. The changes in 12VAC30-70-50 and*

12VAC30-70-351 are necessary to conform these sections to changes in the State Plan for Medical Assistance made at the direction of the Centers for Medicare and Medicaid Services (CMS). CMS is the federal funding agency for Virginia Medicaid and, as such, has the authority to require DMAS to make changes in submitted State Plan language. 12VAC30-70-50 is modified to remove outdated language and add clarifying text as required by CMS.

2. *12VAC30-70-201 is modified to clarify that all facilities operated by the Department of Behavioral Health and Developmental Services are retrospectively reimbursed costs. 12VAC30-70-351 is modified to remove outdated language and add clarification as required by CMS.*

3. *12VAC30-80 contains reimbursement methodologies, both cost-based and fee-for-service, for all other services not addressed by 12VAC30-70 and 12VAC30-90. The amendments conform cost report filing requirements to actual practice and eliminate existing text within 12VAC30-80 because reimbursement for inpatient hospital services is covered in 12VAC30-70.*

4. *12VAC30-90 contains reimbursement methodologies for long-term care (nursing facilities) services. The amendments update federal and state agency names, clarify the reimbursement methodology for facilities operated by Department of Veterans Services and for Intermediate Care Facilities for the Mentally Retarded, and codify the agency's practice of granting exceptions to providers of the nursing facility occupancy requirements.*

12VAC30-70-50. Hospital reimbursement system.

The reimbursement system for hospitals includes the following components:

A. Hospitals were grouped by classes according to number of beds and urban versus rural. (Three groupings for rural - 0 to 100 beds, 101 to 170 beds, and over 170 beds; four groupings for urban - 0 to 100, 101 to 400, 401 to 600, and over 600 beds.) Groupings are similar to those used by the Health Care Financing Administration (HCFA) in determining routine cost limitations.

B. Prospective reimbursement ceilings on allowable operating costs were established as of July 1, 1982, for each grouping. Hospitals with a fiscal year end after June 30, 1982, were subject to the new reimbursement ceilings.

Regulations

The calculation of the initial group ceilings as of July 1, 1982, was based on available, allowable cost data for hospitals in calendar year 1981. Individual hospital operating costs were advanced by a reimbursement escalator from the hospital's year end to July 1, 1982. After this advancement, the operating costs were standardized using SMSA wage indices, and a median was determined for each group. These medians were readjusted by the wage index to set an actual cost ceiling for each SMSA. Therefore, each hospital grouping has a series of ceilings representing one of each SMSA area. The wage index is based on those used by HCFA in computing its Market Basket Index for routine cost limitations.

Effective July 1, 1986, and until June 30, 1988, providers subject to the prospective payment system of reimbursement had their prospective operating cost rate and prospective operating cost ceiling computed using a new methodology. This method uses an allowance for inflation based on the percent of change in the quarterly average of the Medical Care Index of the Chase Econometrics - Standard Forecast determined in the quarter in which the provider's new fiscal year began.

The prospective operating cost rate is based on the provider's allowable cost from the most recent filed cost report, plus the inflation percentage add-on.

The prospective operating cost ceiling is determined by using the base that was in effect for the provider's fiscal year that began between July 1, 1985, and June 1, 1986. The allowance for inflation percent of change for the quarter in which the provider's new fiscal year began is added to this base to determine the new operating cost ceiling. This new ceiling was effective for all providers on July 1, 1986. For subsequent cost reporting periods beginning on or after July 1, 1986, the last prospective operating rate ceiling determined under this new methodology will become the base for computing the next prospective year ceiling.

Effective on and after July 1, 1988, and until June 30, 1989, for providers subject to the prospective payment system, the allowance for inflation shall be based on the percent of change in the moving average of the Data Resources, Incorporated Health Care Cost HCFA-Type Hospital Market Basket determined in the quarter in which the provider's new fiscal year begins. Such providers shall have their prospective operating cost rate and prospective operating cost ceiling established in accordance with the methodology which became effective July 1, 1986. Rates and ceilings in effect July 1, 1988, for all such hospitals shall be adjusted to reflect this change.

Effective on or after July 1, 1989, for providers subject to the prospective payment system, the allowance for inflation shall be based on the percent of change in the moving average of the Health Care Cost HCFA-Type Hospital Market Basket, adjusted for Virginia, as developed by Data Resources,

Incorporated, determined in the quarter in which the provider's new fiscal year begins. Such providers shall have their prospective operating cost rate and prospective operating cost ceiling established in accordance with the methodology which became effective July 1, 1986. Rates and ceilings in effect July 1, 1989, for all such hospitals shall be adjusted to reflect this change.

Effective on and after July 1, 1992, for providers subject to the prospective payment system, the allowance for inflation, as described above, which became effective on July 1, 1989, shall be converted to an escalation factor by adding two percentage points, (200 basis points) to the then current allowance for inflation. The escalation factor shall be applied in accordance with the inpatient hospital reimbursement methodology in effect on June 30, 1992. On July 1, 1992, the conversion to the new escalation factor shall be accomplished by a transition methodology which, for non-June 30 year end hospitals, applies the escalation factor to escalate their payment rates for the months between July 1, 1992, and their next fiscal year ending on or before May 31, 1993.

Effective July 1, 2010, through June 30, 2012, the escalation factor shall be zero. In addition, ceilings shall remain at the same level as the ceilings for long stay hospitals with fiscal year's end of June 30, 2010.

Effective July 1, 2009, the escalation factor shall be equal to the allowance for inflation.

The new method will still require comparison of the prospective operating cost rate to the prospective operating ceiling. The provider is allowed the lower of the two amounts subject to the lower of cost or charges principles.

C. Subsequent to June 30, 1992, the group ceilings shall not be recalculated on allowable costs, but shall be updated by the escalator factor.

D. Prospective rates for each hospital shall be based upon the hospital's allowable costs plus the escalator factor, or the appropriate ceilings, or charges; whichever is lower. Except to eliminate costs that are found to be unallowable, no retrospective adjustment shall be made to prospective rates.

~~Depreciation, capital interest,~~ Capital and education costs approved pursuant to PRM-15 (§ 400); shall be considered as pass throughs and not part of the calculation. ~~Capital interest cost~~ is reimbursed the percentage of allowable cost specified in 12VAC30-70-271.

E. An incentive plan should be established whereby a hospital will be paid on a sliding scale, percentage for percentage, up to 25% of the difference between allowable operating costs and the appropriate per diem group ceiling when the operating costs are below the ceilings. The incentive should be calculated based on the annual cost report.

~~The table below presents three examples under the new plan:~~

Group Ceiling	Hospital's Allowable Cost Per Day	\$	Difference % of Ceiling	\$	Sliding Scale Incentive % of Difference
\$230.00	\$230.00	-0-	-0-	-0-	-0-
230.00	207.00	23.00	10%	2.30	10%
230.00	172.00	57.50	25%	14.38	25%
230.00	143.00	76.00	33%	19.00	25%

~~F. There will be special consideration for exception to the median operating cost limits in those instances where extensive neonatal care is provided.~~

~~G. F.~~ Disproportionate share hospitals defined.

The following criteria shall be met before a hospital is determined to be eligible for a disproportionate share payment adjustment.

1. Criteria.

a. A Medicaid inpatient utilization rate in excess of 8% for hospitals receiving Medicaid payments in the Commonwealth, or a low-income patient utilization rate exceeding 25% (as defined in the Omnibus Budget Reconciliation Act of 1987 and as amended by the Medicare Catastrophic Coverage Act of 1988); and

b. At least two obstetricians with staff privileges at the hospital who have agreed to provide obstetric services to individuals entitled to such services under a State Medicaid plan. In the case of a hospital located in a rural area (that is, an area outside of a Metropolitan Statistical Area, as defined by the Executive Office of Management and Budget), the term "obstetrician" includes any physician with staff privileges at the hospital to perform nonemergency obstetric procedures.

c. Subdivision 1 b of this subsection does not apply to a hospital:

- (1) At which the inpatients are predominantly individuals under 18 years of age; or
- (2) Which does not offer nonemergency obstetric services as of December 21, 1987.

2. Payment adjustment.

a. Hospitals which have a disproportionately higher level of Medicaid patients shall be allowed a disproportionate share payment adjustment based on the type of hospital and on the individual hospital's Medicaid utilization. There shall be two types of hospitals: (i) Type One, consisting of state-owned teaching hospitals, and (ii) Type Two, consisting of all other hospitals. The Medicaid utilization shall be determined by dividing the number of utilization Medicaid inpatient days by the total

number of inpatient days. Each hospital with a Medicaid utilization of over 8.0% shall receive a disproportionate share payment adjustment.

b. For Type One hospitals, the disproportionate share payment adjustment shall be equal to the product of (i) the hospital's Medicaid utilization in excess of 8.0% times 11, times (ii) the lower of the prospective operating cost rate or ceiling. For Type Two hospitals, the disproportionate share payment adjustment shall be equal to the product of (i) the hospital's Medicaid utilization in excess of 8.0% times (ii) the lower of the prospective operating cost rate or ceiling.

c. No payments made under subdivision 1 or 2 of this subsection shall exceed any applicable limitations upon such payments established by federal law or regulations.

~~H. G.~~ Outlier adjustments.

1. DMAS shall pay to all enrolled hospitals an outlier adjustment in payment amounts for medically necessary inpatient hospital services provided on or after July 1, 1991, involving exceptionally high costs for individuals under one year of age.

2. DMAS shall pay to disproportionate share hospitals (as defined in ~~paragraph G above~~ subsection F of this section) an outlier adjustment in payment amounts for medically necessary inpatient hospital services provided on or after July 1, 1991, involving exceptionally high costs for individuals under six years of age.

3. The outlier adjustment calculation.

a. Each eligible hospital which desires to be considered for the adjustment shall submit a log which contains the information necessary to compute the mean of its Medicaid per diem operating cost of treating individuals identified in subdivision ~~H~~ 1 or 2 ~~above of this subsection~~. This log shall contain all Medicaid claims for such individuals, including, but not limited to: (i) the patient's name and Medicaid identification number; (ii) dates of service; (iii) the remittance date paid; (iv) the number of covered days; and (v) total charges for the length of stay. Each hospital shall then calculate the per diem operating cost (which excludes capital and

Regulations

education) of treating such patients by multiplying the charge for each patient by the Medicaid operating cost-to-charge ratio determined from its annual cost report.

b. Each eligible hospital shall calculate the mean of its Medicaid per diem operating cost of treating individuals identified in subdivision H 1 or 2 ~~above of this subsection. Any hospital which qualifies for the extensive neonatal care provision (as governed by paragraph F, above) shall calculate a separate mean for the cost of providing extensive neonatal care to individuals identified in subdivision H 1 or 2 above.~~

c. Each eligible hospital shall calculate its threshold for payment of the adjustment, at a level equal to two and one-half standard deviations above the mean or means calculated in subdivision H 3 a (ii) above of this subsection.

d. DMAS shall pay as an outlier adjustment to each eligible hospital all per diem operating costs which exceed the applicable threshold or thresholds for that hospital.

4. Pursuant to 12VAC30-50-100, there is no limit on length of time for medically necessary stays for individuals under six years of age. This section provides that consistent with 42 CFR 441.57, payment of medical assistance services shall be made on behalf of individuals under 21 years of age, who are Medicaid eligible, for medically necessary stays in acute care facilities in excess of 21 days per admission when such services are rendered for the purpose of diagnosis and treatment of health conditions identified through a physical examination. Medical documentation justifying admission and the continued length of stay must be attached to or written on the invoice for review by medical staff to determine medical necessity. Medically unjustified days in such admissions will be denied.

Part V

Inpatient Hospital Payment System

Article 1

Application of Payment Methodologies

12VAC30-70-201. Application of payment methodologies.

A. The state agency will pay for inpatient hospital services in general acute care hospitals, rehabilitation hospitals, and freestanding psychiatric facilities licensed as hospitals under a prospective payment methodology. This methodology uses both per case and per diem payment methods. Article 2 (12VAC30-70-221 et seq.) describes the prospective payment methodology, including both the per case and the per diem methods.

B. Article 3 (12VAC30-70-400 et seq.) describes a per diem methodology that applied to a portion of payment to general acute care hospitals during state fiscal years 1997 and 1998,

and that will continue to apply to patient stays with admission dates prior to July 1, 1996. Inpatient hospital services that are provided in long stay hospitals ~~and state-owned rehabilitation hospitals~~ shall be subject to the provisions of Supplement 3 (12VAC30-70-10 through 12VAC30-70-130).

C. Inpatient hospital facilities operated by the Department of Behavioral Health and Developmental Services (DBHDS) shall be reimbursed costs. Facilities may also receive disproportionate share hospital (DSH) payments. The criteria for DSH eligibility and the payment amount shall be based on subsection F of 12VAC30-70-50. If the DSH limit is exceeded by any facility, the excess DSH payments shall be distributed to all other qualifying DBHDS facilities in proportion to the amount of DSH they otherwise receive.

~~C. D.~~ Transplant services shall not be subject to the provisions of this part. Reimbursement for covered liver, heart, and bone marrow/stem cell transplant services and any other medically necessary transplantation procedures that are determined to not be experimental or investigational shall be a fee based upon the greater of a prospectively determined, procedure-specific flat fee determined by the agency or a prospectively determined, procedure-specific percentage of usual and customary charges. The flat fee reimbursement will cover procurement costs; all hospital costs from admission to discharge for the transplant procedure; and total physician costs for all physicians providing services during the hospital stay, including radiologists, pathologists, oncologists, surgeons, etc. The flat fee reimbursement does not include pre- and post-hospitalization for the transplant procedure or pretransplant evaluation. If the actual charges are lower than the fee, the agency shall reimburse the actual charges. Reimbursement for approved transplant procedures that are performed out of state will be made in the same manner as reimbursement for transplant procedures performed in the Commonwealth. Reimbursement for covered kidney and cornea transplants is at the allowed Medicaid rate. Standards for coverage of organ transplant services are in 12VAC30-50-540 through 12VAC30-50-580.

~~D. E.~~ Reduction of payments methodology.

1. For state fiscal years 2003 and 2004, the Department of Medical Assistance Services (DMAS) shall reduce payments to hospitals participating in the Virginia Medicaid Program by \$8,935,825 total funds, and \$9,227,815 total funds respectively. For purposes of distribution, each hospital's share of the total reduction amount shall be determined as provided in this subsection.

2. Determine base for revenue forecast.

a. DMAS shall use, as a base for determining the payment reduction distribution for hospitals Type I and Type II, net Medicaid inpatient operating reimbursement and outpatient reimbursed cost, as recorded by DMAS for state fiscal year 1999 from each individual hospital

settled cost reports. This figure is further reduced by 18.73%, which represents the estimated statewide HMO average percentage of Medicaid business for those hospitals engaged in HMO contracts, to arrive at net baseline proportion of non-HMO hospital Medicaid business.

b. For freestanding psychiatric hospitals, DMAS shall use estimated Medicaid revenues for the six-month period (January 1, 2001, through June 30, 2001), times two, and adjusted for inflation by 4.3% for state fiscal year 2002, 3.1% for state fiscal year 2003, and 3.7% for state fiscal year 2004, as reported by DRI-WEFA, Inc.'s, hospital input price level percentage moving average.

3. Determine forecast revenue.

a. Each Type I hospital's individual state fiscal year 2003 and 2004 forecast reimbursement is based on the proportion of non-HMO business (see subdivision 2 a of this subsection) with respect to the DMAS forecast of SFY 2003 and 2004 inpatient and outpatient operating revenue for Type I hospitals.

b. Each Type II, including freestanding psychiatric, hospital's individual state fiscal year 2003 and 2004 forecast reimbursement is based on the proportion of non-HMO business (see subdivision 2 of this subsection) with respect to the DMAS forecast of SFY 2003 and 2004 inpatient and outpatient operating revenue for Type II hospitals.

4. Each hospital's total yearly reduction amount is equal to their respective state fiscal year 2003 and 2004 forecast reimbursement as described in subdivision 3 of this subsection, times 3.235857% for state fiscal year 2003, and 3.235857%, for the first two quarters of state fiscal year 2004 and 2.88572% for the last two quarters of state fiscal year 2004, not to be reduced by more than \$500,000 per year.

5. Reductions shall occur quarterly in four amounts as offsets to remittances. Each hospital's payment reduction shall not exceed that calculated in subdivision 4 of this subsection. Payment reduction offsets not covered by claims remittance by May 15, 2003, and 2004, will be billed by invoice to each provider with the remaining balances payable by check to the Department of Medical Assistance Services before June 30, 2003, or 2004, as applicable.

12VAC30-70-351. Updating rates for inflation.

A. Each July, the Virginia moving average values as compiled and published by Global Insight (or its successor), under contract with the department shall be used to update the base year standardized operating costs per case, as determined in 12VAC30-70-361, and the base year standardized operating costs per day, as determined in 12VAC30-70-371,

to the midpoint of the upcoming state fiscal year. The most current table available prior to the effective date of the new rates shall be used to inflate base year amounts to the upcoming rate year. Thus, corrections made by Global Insight (or its successor), in the moving averages that were used to update rates for previous state fiscal years shall be automatically incorporated into the moving averages that are being used to update rates for the upcoming state fiscal year.

B. The inflation adjustment for hospital operating rates, disproportionate share hospitals (DSH) payments, and graduate medical education payments shall be ~~eliminated zero percent~~ zero percent for fiscal year (FY) 2010, ~~with the exception of long stay hospitals.~~ The elimination of the inflation adjustments shall not be applicable to re-basing in FY 2011.

C. In FY 2011, hospital operating rates shall be rebased; however the 2008 base year costs shall only be increased 2.58% for inflation. For FY 2011 there shall be no inflation adjustment for graduate medical education (GME) or freestanding psychiatric facility rates. The inflation adjustment shall be eliminated for hospital operating rates, GME payments, and freestanding psychiatric facility rates for FY 2012.

12VAC30-80-20. Services that are reimbursed on a cost basis.

A. Payments for services listed below shall be on the basis of reasonable cost following the standards and principles applicable to the Title XVIII Program with the exception provided for in subdivision D ~~2~~ 1 d. The upper limit for reimbursement shall be no higher than payments for Medicare patients on a facility by facility basis in accordance with 42 CFR 447.321 and 42 CFR 447.325. In no instance, however, shall charges for beneficiaries of the program be in excess of charges for private patients receiving services from the provider. The professional component for emergency room physicians shall continue to be uncovered as a component of the payment to the facility.

B. Reasonable costs will be determined from the filing of a uniform cost report by participating providers. The cost reports are due not later than ~~90~~ 150 days after the provider's fiscal year end. If a complete cost report is not received within ~~90~~ 150 days after the end of the provider's fiscal year, the Program shall take action in accordance with its policies to assure that an overpayment is not being made. The cost report will be judged complete when DMAS has all of the following:

1. Completed cost reporting form(s) provided by DMAS, with signed certification(s);
2. The provider's trial balance showing adjusting journal entries;
3. The provider's financial statements including, but not limited to, a balance sheet, a statement of income and

Regulations

expenses, a statement of retained earnings (or fund balance), and a statement of changes in financial position;

4. Schedules that reconcile financial statements and trial balance to expenses claimed in the cost report;

5. Depreciation schedule or summary;

6. Home office cost report, if applicable; and

7. Such other analytical information or supporting documents requested by DMAS when the cost reporting forms are sent to the provider.

C. Item 398 D of the 1987 Appropriation Act (as amended), effective April 8, 1987, eliminated reimbursement of return on equity capital to proprietary providers.

D. The services that are cost reimbursed are:

~~1. Inpatient hospital services to persons over 65 years of age in tuberculosis and mental disease hospitals.~~

~~2. 1. Outpatient hospital services including rehabilitation hospital outpatient services and excluding laboratory.~~

a. Definitions. The following words and terms when used in this regulation shall have the following meanings when applied to emergency services unless the context clearly indicates otherwise:

"All-inclusive" means all emergency department and ancillary service charges claimed in association with the emergency room visit, with the exception of laboratory services.

"DMAS" means the Department of Medical Assistance Services consistent with Chapter 10 (~~set seq.~~) (§ 32.1-323 et seq.) of Title 32.1 of the Code of Virginia.

"Emergency hospital services" means services that are necessary to prevent the death or serious impairment of the health of the recipient. The threat to the life or health of the recipient necessitates the use of the most accessible hospital available that is equipped to furnish the services.

"Recent injury" means an injury that has occurred less than 72 hours prior to the emergency department visit.

b. Scope. DMAS shall differentiate, as determined by the attending physician's diagnosis, the kinds of care routinely rendered in emergency departments and reimburse for nonemergency care rendered in emergency departments at a reduced rate.

(1) With the exception of laboratory services, DMAS shall reimburse at a reduced and all-inclusive reimbursement rate for all services, including those obstetric and pediatric procedures contained in 12VAC30-80-160, rendered in emergency departments that DMAS determines were nonemergency care.

(2) Services determined by the attending physician to be emergencies shall be reimbursed under the existing methodologies and at the existing rates.

(3) Services performed by the attending physician that may be emergencies shall be manually reviewed. If such services meet certain criteria, they shall be paid under the methodology for subdivision ~~2~~ 1 b (2) of this subsection. Services not meeting certain criteria shall be paid under the methodology of subdivision ~~2~~ 1 b (1) of this subsection. Such criteria shall include, but not be limited to:

(a) The initial treatment following a recent obvious injury.

(b) Treatment related to an injury sustained more than 72 hours prior to the visit with the deterioration of the symptoms to the point of requiring medical treatment for stabilization.

(c) The initial treatment for medical emergencies including indications of severe chest pain, dyspnea, gastrointestinal hemorrhage, spontaneous abortion, loss of consciousness, status epilepticus, or other conditions considered life threatening.

(d) A visit in which the recipient's condition requires immediate hospital admission or the transfer to another facility for further treatment or a visit in which the recipient dies.

(e) Services provided for acute vital sign changes as specified in the provider manual.

(f) Services provided for severe pain when combined with one or more of the other guidelines.

(4) Payment shall be determined based on ICD-9-CM diagnosis codes and necessary supporting documentation.

(5) DMAS shall review on an ongoing basis the effectiveness of this program in achieving its objectives and for its effect on recipients, physicians, and hospitals. Program components may be revised subject to achieving program intent, the accuracy and effectiveness of the ICD-9-CM code designations, and the impact on recipients and providers.

c. Limitation to 80% of allowable cost. Effective for services on and after July 1, 2003, reimbursement of Type Two hospitals for outpatient services shall be at 80% of allowable cost, with cost to be determined as provided in subsections A, B, and C of this section. For hospitals with fiscal years that do not begin on July 1, 2003, outpatient costs, both operating and capital, for the fiscal year in progress on that date shall be apportioned between the time period before and the time period after that date, based on the number of calendar months in the cost reporting period, falling before and after that date.

Operating costs apportioned before that date shall be settled according to the principles in effect before that date, and those after at 80% of allowable cost. Capital costs apportioned before that date shall be settled according to the principles in effect before that date, and those after at 80% of allowable cost. Operating and capital costs of Type One hospitals shall continue to be reimbursed at 94.2% and 90% of cost respectively.

d. Outpatient reimbursement methodology prior to July 1, 2003. DMAS shall continue to reimburse for outpatient hospital services, with the exception of direct graduate medical education for interns and residents, at 100% of reasonable costs less a 10% reduction for allowable capital costs and a 5.8% reduction for allowable operating costs. This methodology shall continue to be in effect after July 1, 2003, for Type One hospitals.

e. Payment for direct medical education costs of nursing schools, paramedical programs and graduate medical education for interns and residents.

(1) Direct medical education costs of nursing schools and paramedical programs shall continue to be paid on an allowable cost basis.

(2) Effective with cost reporting periods beginning on or after July 1, 2002, direct graduate medical education (GME) costs for interns and residents shall be reimbursed on a per-resident prospective basis. See 12VAC30-70-281 for prospective payment methodology for graduate medical education for interns and residents.

~~3.~~ 2. Rehabilitation agencies operated by community services boards. For reimbursement methodology applicable to other rehabilitation agencies, see 12VAC30-80-200. Reimbursement for physical therapy, occupational therapy, and speech-language therapy services shall not be provided for any sums that the rehabilitation provider collects, or is entitled to collect, from the NF or any other available source, and provided further, that this amendment shall in no way diminish any obligation of the NF to DMAS to provide its residents such services, as set forth in any applicable provider agreement.

~~4. Rehabilitation hospital outpatient services.~~

Part I

Methods and Standards for Establishing Payment Rates for Long-Term Care

12VAC30-90-10. Methods and standards for establishing payment rates for long-term care.

The policy and the method to be used in establishing payment rates for nursing facilities listed in § 1905(a) of the Social Security Act and included in this State Plan for Medical Assistance are described in the following paragraphs.

1. Reimbursement and payment criteria will be established which are designed to enlist participation of a sufficient number of providers of services in the Program so that eligible persons can receive the medical care and services included in the Plan to the extent these are available to the general population.

2. Participation in the Program will be limited to providers of services who accept, as payment in full, the amounts so paid.

3. Payment for care of service will not exceed the amounts indicated to be reimbursed in accord with the policy and the methods described in the Plan and payments will not be made in excess of the upper limits described in 42 CFR 447.253(b)(2). The state agency has continuing access to data identifying the maximum charges allowed. Such data will be made available to the Secretary of Health and Human Services upon request.

4. Payments for services to nursing facilities shall be on the basis of reasonable cost in accordance with the standards and principles set forth in 42 CFR 447.252 as follows:

a. A uniform annual cost report which itemizes allowable cost will be required to be filed within 150 days of each provider's fiscal year end.

b. The determination of allowable costs will be in accordance with Medicare principles as established in the Provider Reimbursement Manual (PRM-15) except where otherwise noted in this Plan.

c. Field audits will be conducted on the cost data submitted by the provider to verify the accuracy and reasonableness of such data. Audits will be conducted for each facility on a periodic basis as determined from internal desk audits and more often as required. Audit procedures are in conformance with SSA standards set forth in PRM-13-2. Internal desk audits are conducted annually within six months of receipt of a completed cost report from the provider.

d. Reports of field audits are retained by the state agency for at least three years following submission of the report.

e. Facilities are paid on a cost-related basis in accordance with the methodology described in the Plan.

f. Modifications to the Plan for reimbursement will be submitted as Plan amendments.

g. Covered cost will include such items as:

(1) Cost of meeting certification standards.

(2) Routine services, which include items expense providers normally incur in the provision of services.

Regulations

(3) The cost of such services provided by related organizations except as modified in the payment system at Part II (12VAC30-90-20 et seq.) of this chapter.

h. Bad debts, charity and courtesy allowances shall be excluded from allowable cost.

i. Effective for facility cost reporting periods beginning on or after October 1, 1978, the reimbursable amount will be determined prospectively on a facility by facility basis, except that ~~mental institutions and mental retardation facilities shall continue to be reimbursed retrospectively~~ operated by the Department of Behavioral Health and Developmental Services and effective July 1, 2002, the Virginia Veterans Care Center nursing facility by the Department of Veterans Services shall be reimbursed retrospectively. The prospective rate will be based on the prior period's actual cost (as determined by an annual cost report and verified by audit as set forth in subdivision 4 c of this section) plus an inflation factor. Payments will be made to facilities no less than monthly.

j. The payment level calculated by the prospective rate will be adequate to reimburse in full such actual allowable costs that an economically and efficiently operated facility must incur. In addition, an incentive plan will be established as described in the payment system at ~~12VAC30-90-20 et seq~~ 12VAC30-90.

k. Upper limits for payment within the prospective payment system shall be as follow:

(1) Allowable cost shall be determined in accordance with Medicare principles as defined in PRM-15, except as may be modified in this plan.

(2) Reimbursement for operating costs will be limited to regional ceilings.

(3) Reimbursement, in no instance, will exceed the charges for private patients receiving the same services. In accordance with § 1903(a)(2)(B) of the Social Security Act, nursing facility costs incurred in relation to training and competency evaluation of nurse aides will be considered as State administrative expenses and, as such, shall be exempted from this provision.

l. In accordance with 42 CFR 447.205, an opportunity for public comment was permitted before final implementation of rate setting processes.

m. A detailed description of the prospective reimbursement formula is attached for supporting detail.

n. Item 398D of the 1987 Appropriation Act (as amended), effective April 8, 1987, eliminated reimbursement of return on equity capital to proprietary providers.

5. Reimbursement of nonenrolled long term care facilities.

a. Nonenrolled providers of institutional long term care services shall be reimbursed based upon the average per diem cost, updated annually, reimbursed to enrolled nursing facility providers.

b. Prior approval must be received from the DMAS for recipients to receive institutional services from nonenrolled long-term care facilities. Prior approval can only be granted:

(1) When the nonenrolled long-term care facility with an available bed is closer to the recipient's Virginia residence than the closest facility located in Virginia with an available bed;

(2) When long-term care special services, such as intensive rehabilitation services, are not available in Virginia; or

(3) If there are no available beds in Virginia facilities.

6. Specialized care services. The payment methodology for specialized care services is contained in Part XVII (12VAC30-90-350 et seq.) of the Nursing Home Payment System.

12VAC30-90-20. Nursing home payment system; generally.

A. Effective July 1, 2001, the payment methodology for nursing facility (NF) reimbursement by the Virginia Department of Medical Assistance Services (DMAS) is set forth in this part.

B. Three separate cost components are used: plant or capital, as appropriate, cost; operating cost; and nurse aide training and competency evaluation program and competency evaluation program (NATCEPs) costs. The rates, which are determined on a facility-by-facility basis, shall be based on annual cost reports filed by each provider.

C. Effective July 1, 2001, in determining the ceiling limitations, there shall be direct patient care medians established for nursing facilities in the Virginia portion of the Washington DC-MD-VA Metropolitan Statistical Area (MSA), the Richmond-Petersburg Metropolitan Statistical Area (MSA), and in the rest of the state. There shall be indirect patient care medians established for nursing facilities in the Virginia portion of the Washington DC-MD-VA MSA, for NFs with less than 61 beds in the rest of the state, and for NFs with more than 60 beds in the rest of the state. The Washington DC-MD-VA MSA and the Richmond-Petersburg MSA shall include those cities and counties as listed and changed from time to time by the ~~Health Care Financing Administration (HCFA)~~ Centers for Medicare and Medicaid Services (CMS). A nursing facility located in a jurisdiction which ~~HCFA~~ CMS adds to or removes from the Washington DC-MD-VA MSA or the Richmond-Petersburg MSA shall be placed in its new peer group, for purposes of reimbursement,

at the beginning of its next fiscal year following the effective date of HCFA's final rule.

~~D. Institutions for mental diseases providing nursing services for individuals age 65 and older Nursing facilities operated by the Department of Behavioral Health and Developmental Services and the Department of Veterans Services shall be exempt from the prospective payment system as defined in Articles 1 (12VAC30-90-29), 3 (12VAC30-90-35 ~~et seq.~~) (12VAC30-90-35 et seq.), 4 (12VAC30-90-40 ~~et seq.~~) (12VAC30-90-40 et seq.), 6 (12VAC30-90-60 et seq.), and 8 (12VAC30-90-80 et seq.) of this subpart, ~~as are mental retardation facilities and effective July 1, 2002, as is the Virginia Veterans Care Center nursing facility.~~ All other sections of this payment system relating to reimbursable cost limitations shall apply. These facilities shall continue to be reimbursed retrospectively on the basis of reasonable costs in accordance with Medicare principles of reimbursement ~~and Medicaid principles of reimbursement in effect on June 30, 2000, except that those that are defined as skilled nursing facilities (SNFs) and are operated by the Department of Mental Health, Mental Retardation and Substance Abuse Services shall not be subject to the routine cost limits that are normally required and applicable under Medicare principles of reimbursement.~~ Reimbursement to Intermediate Care Facilities for the Mentally Retarded (ICF/MR) shall be reimbursed retrospectively on the basis of reasonable costs in accordance with Medicare principles of reimbursement but limited to the highest rate paid to a state ICF/MR institution, approved each July 1 by DMAS.~~

E. Except as specifically modified herein, Medicare principles of reimbursement, as amended from time to time, shall be used to establish the allowable costs in the rate calculations. Allowable costs must be classified in accordance with the DMAS uniform chart of accounts (see 12VAC30-90-270 through 12VAC30-90-276) and must be identifiable and verifiable by contemporaneous documentation.

All matters of reimbursement which are part of the DMAS reimbursement system shall supersede Medicare principles of reimbursement. Wherever the DMAS reimbursement system conflicts with Medicare principles of reimbursement, the DMAS reimbursement system shall take precedence. Appendices are a part of the DMAS reimbursement system.

Article 6
New Nursing Facilities

12VAC30-90-60. Interim rate.

A. A new facility shall be defined as follows:

1. A facility that is newly enrolled and new construction has taken place through the COPN process; or
2. A facility that is newly enrolled which was previously denied payments for new admissions and was subsequently terminated from the program.

B. Upon a showing of good cause, and approval of DMAS, an existing NF that expands its bed capacity by 50% or more shall have the option of retaining its prospective rate or being treated as a new NF.

C. A replacement facility or one that has changed location may not be considered a new facility if it serves the same inpatient population. An exception may be granted by DMAS if the provider can demonstrate that the occupancy substantially changed as a result of the facility being replaced or changing location. A decline in the replacement facility's total occupancy of 20 percentage points, in the replacement facility's first cost reporting period, shall be considered to indicate a substantial change when compared to the lower of the old facility's previous two prior cost reporting periods. The replacement facility shall receive the previous operator's operating rates if it does not qualify to be considered a new facility.

D. A change in either ownership or adverse financial conditions (e.g., bankruptcy), or both, of a provider does not change a nursing facility's status to be considered a new facility.

E. Effective July 1, 2001, for all new NFs the 90% occupancy requirement for indirect and capital costs shall be waived for establishing the first cost reporting period interim rate. This first cost reporting period shall not exceed 13 months from the date of the NFs certification.

F. The 90% occupancy requirement for indirect and capital costs shall be applied to the first and subsequent cost reporting periods' actual indirect and capital costs for establishing such NFs second and future cost reporting periods' prospective reimbursement rates. The 90% occupancy requirement shall be considered as having been satisfied if the new NF achieved a 90% occupancy at any point in time during the first cost reporting period.

1. The department may grant an exception to the minimum occupancy requirement for reimbursement purposes for beds taken out of service for the purpose of renovation. In this case, the occupancy requirement shall be calculated as 90% of available bed days for the period of the exception plus 90% of licensed bed days for the remainder of the cost report year.

2. The provider shall notify DMAS and the Virginia Department of Health (VDH), Division of Long Term Care Services, Office of Licensure and Certification in advance and present a renovation plan including a reasonable timetable for when the beds will be placed back into service.

3. The provider shall keep the appropriate documentation of available beds and days during the renovation period, which will provide the evidence of the beds and days taken out of service for renovation purposes. This supporting documentation, along with a copy of the

Regulations

provider's notification letter to the VDH Division of Long Term Care Services, Office of Licensure and Certification shall be submitted with the filing of the provider's cost report, as applicable. The provider's notification letter shall account for the number of beds not in use for the defined period of time.

G. A new NFs interim rate for the first cost reporting period shall be determined based upon the lower of its anticipated allowable cost determined from a detailed budget (or pro forma cost report) prepared by the provider and accepted by DMAS, or the appropriate operating ceilings or charges.

H. Effective July 1, 2001, on the first day of its second cost reporting period, a new nursing facility's interim plant or capital, as appropriate, rate shall be converted to a per diem amount by dividing its allowable plant/capital costs for its first cost reporting period by 90% of the potential number of patient days for all licensed beds during the first cost reporting period.

I. During its first semiannual period of operation, a newly constructed or newly enrolled NF shall have an assigned CMI based upon its peer group's normalized average Medicaid CMI for direct patient care. An expanded NF receiving new NF treatment shall receive the CMI calculated for its last semiannual period prior to obtaining new NF status.

VA.R. Doc. No. R11-2635; Filed February 24, 2011, 3:28 p.m.

TITLE 16. LABOR AND EMPLOYMENT

SAFETY AND HEALTH CODES BOARD

Final Regulation

EDITOR'S NOTE: For information on the implementation of the Tree Trimming Operations regulations, see page 1977 of the General Notices section of this issue of the Virginia Register of Regulations.

Title of Regulation: **16VAC25-73. Tree Trimming Operations (adding 16VAC25-73-10 through 16VAC25-73-150).**

Statutory Authority: § 40.1-22 of the Code of Virginia.

Effective Date: April 27, 2011.

Agency Contact: Regina P. Cobb, Agency Management Analyst Senior, Department of Labor and Industry, Powers-Taylor Bldg., 13 South 13th Street, Richmond, VA 23219, telephone (804) 786-0610, FAX (804) 786-8418, TTY (804) 786-2376, or email regina.cobb@doli.virginia.gov.

Summary:

The regulations apply to tree-trimming operations and are based on the American National Standards Institute (ANSI)

Z133.1-2006, Safety Requirements for Arboricultural Operations (With Modifications) for Application to Tree Trimming Operations. The regulation addresses nonlogging, tree-trimming, and cutting operations on residential and commercial work sites. The regulation, based on ANSI-Z133.1-2006, contains components such as general safety requirements (traffic control around the jobsite, emergency procedures and readiness, personal protective equipment, and fire protection); electrical hazards; safe use of vehicles and mobile equipment used in arboriculture; portable power hand tools; hand tools and ladders; work procedures (ropes and arborist climbing equipment, pruning and trimming, cabling, rigging, tree removal, bush removal and chipping, limbing and bucking, and pesticide application); and training for employees.

Changes since publication of the proposed regulation include adding and revising definitions; clarifying that line-clearance tree trimming activities are covered by 16VAC25-90-1910.269; clarifying that the regulation does not apply to nonarboricultural landscaping operations; clarifying employer requirements for certain tree trimming/removal operations such as rights-of-ways for new utility installations; removing the specifications for minimum approach distances from energized electrical conductors; removing the storm work and emergency conditions line clearance provisions; revising the first aid requirement; providing that nonline-clearance tree trimming work around overhead high voltage lines is covered by the Overhead High Voltage Line Safety Act (§ 59.1-406 et seq. of the Code of Virginia); and revising the vehicles and mobile equipment provisions and work procedures provisions.

Summary of Public Comments and Agency's Response: A summary of comments made by the public and the agency's response may be obtained from the promulgating agency or viewed at the office of the Registrar of Regulations.

CHAPTER 73

REGULATION APPLICABLE TO TREE TRIMMING OPERATIONS

16VAC25-73-10. Scope, purpose, and applicability.

A. This regulation contains arboriculture safety requirements for pruning, repairing, maintaining, and removing trees; cutting brush; and for using equipment in such operations. (Note: Terms specific to the safe practice of arboriculture are defined in 16VAC25-73-20.)

B. The purpose of this regulation is to provide safety criteria for arborists and other workers engaged in arboricultural operations.

C. This regulation is intended to apply to all employers engaged in the business, trade, or performance of arboriculture, including employers engaged in tree pruning, repairing, maintaining; removing trees; cutting brush; or

performing pest or soil management [during tree care operations] who hire one or more persons to perform such work. This regulation may require situational modifications in response to personnel emergencies and is not intended to limit the options available to emergency responders. [This regulation does not apply to nonarboricultural landscaping operations. This regulation does not apply to line-clearance tree trimming activities as defined in 16VAC25-73-20. Such activities are covered by 16VAC25-90-1910.269.] This regulation does not apply to logging operations covered by 16VAC25-90-1910.266. This regulation does not apply to tree removal activities where the primary objective is land clearing in preparation for construction, real estate development, [rights-of-way for new utility installations,] or other related activities, unless directly supervised by a qualified arborist [or qualified line-clearance arborist]. Such activities are covered by 16VAC25-90-1910.266.

16VAC25-73-20. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context indicates otherwise:

"Aerial device" means any one of the following types of vehicle-mounted apparatus used to elevate personnel to jobsites above ground:

1. Extensible boom platform.
2. Aerial ladder.
3. Articulating boom platform.
4. Vertical tower.
5. A combination of any of the above, as defined in ANSI A92.2.

"Anti-two block device" means a device consisting of a hollow weight suspended from the boom nose or jib of log loaders, cranes, or related hoists by a chain. The weight hangs with hoist cable running through its center. An electromechanical switch mounted on the boom nose or jib is connected to the chain via a retractable steel cable. When contact is made with the suspended weight by the hook block or any other lifting device nearing the nose or jib, the anti-two block switch circuit is deactivated, and hoist up or telescope out is prevented.

"Apex" means the point at which two saw cuts meet to form a notch.

"Applicator" means a qualified person engaged in the application of materials such as, but not limited to, pesticides, growth regulators, and fertilizers.

"Approved" means acceptable to the federal, state, or local jurisdiction having enforcement authority.

"Arboriculture" means the art, science, technology, and business of utility, commercial, and municipal tree care.

"Arborist" means an individual engaged in the profession of arboriculture.

"Arborist climbing line" means a line designated to support the climber while aloft in a tree or attached to a crane, constructed according to specifications outlined in 16VAC25-73-90 A 8.

"Arborist saddle" means an arrangement of straps, fittings, and buckles or other elements in the form of a waist belt with a low attachment element or elements and connecting support encircling the legs, suitably arranged to support the body in a sitting position.

"Ascender" means a mechanical device used for climbing rope.

"Authorized" means designated by the entity that has care, custody, and control of the unit.

"Back cut" means the cut made in a tree limb or trunk on the side opposite the intended direction of fall.

"Belay" means roping technique, managed by the ground person, to safeguard the arborist while climbing.

"Brush hog" means a heavy-duty rotary mower, normally pulled by a farm-type tractor, used for cutting and mulching brush.

"Bucket" means a basket-type platform approximately four feet (1.22 m) high, which is attached to the end of the upper boom on an aerial device, providing a work platform for working aloft.

"Bucking" means the act of sawing trees, limbs, or both, into smaller sections once they are on the ground.

"Cant hook" means a long-handled lever fixed with a blunt metal end to handle logs; includes a swinging, metal hook opposing the blunt end to create leverage.

"Carabiner" means a connector generally composed of a trapezoidal or oval-shaped body with a closed gate or similar arrangement that may be opened to receive an object and, when released, automatically closes to retain the object.

"Chopping tool" means a wooden, fiberglass, or steel-handled tool with a sharp, single- or double-edged steel head or blade mounted to it that is used to cut or split wood (for example, an ax or machete).

"Climbing/friction hitch" means a hitch used for securing a tree climber to the climbing line, permitting controlled ascent, descent, and work positioning. Examples of climbing hitches include, but are not limited to, the tautline hitch, Blake's hitch, and the Prusik hitch/knot.

["Climbing system" means the various pieces of gear, or components that the arborist relies upon to secure himself while aloft in the tree, such as, but not limited to: an arborist saddle, one or more arborist climbing lines, and one or more

Regulations

lanyards as well as carabiners and/or snap hooks approved by their manufacturer for climbing.]

"Conventional notch" means a directional felling cut into the side of a tree, facing the intended direction of fall and consisting of a horizontal face cut and an angle cut above it, creating a notch of approximately 45 degrees.

"Crew leader" means the qualified arborist designated as the individual in charge of a specific job or group of workers.

"Crotch" (n.) means branch union; the angle formed by two branches in the tree. "Crotch" (v.) means to place a line through a branch union.

"Damaged" means a defect, impairment or injury to machinery, vehicle, tool, material or equipment that would meet the manufacturer's criteria for removal from service, or in the absence of such criteria, would materially effect the safe operation or safe use of the item during tree trimming operations.

"DBH" means acronym for diameter at breast height; diameter of a tree measured at 4.5 feet (1.3 m) above ground.

"Deadman control" means a safety switch, electrical or mechanical, that deactivates the equipment's function when released by the operator.

"Dielectric" means nonconductive of electrical current.

"Direct contact" means a direct contact is made when any part of the body touches or contacts an energized electrical conductor.

"Direct supervision" means direct supervision occurs when a qualified arborist or a qualified arborist supervisor is physically present on the jobsite.

"Drop-starting" means the act of starting a chain saw by pushing the saw away from the body with one hand while simultaneously pulling on the starter cord handle with the other.

"Electrical conductor" means any overhead or underground electrical device capable of carrying an electric current, including communications wires and cables, power lines, and other such fixtures or apparatus.

"Electrical hazard" means an object or situation that poses risk of injury or death due to direct or indirect contact with an electrical conductor. Where unguarded, energized electrical conductors are present, specific minimum approach distances based on the arborist's or worker's level of training, as set forth in this regulation, shall be followed.

"Electrical system owner/operator" means an organization that operates or controls the transmission and/or distribution of electric power through electrical conductors.

"Electric supply" means conductors used to transmit electric energy and their necessary supporting or containing

structures. Signal lines of more than 400 volts are always supply lines, and those of less than 400 volts are considered as supply lines if so run and operated throughout.

"Energy (shock) absorber" means a component of a climbing system whose primary function is to dissipate energy and limit deceleration forces that the system imposes on the body during fall arrest.

"Fall-arrest lanyard" means a rope or strap designed to be used with a full-body harness to limit maximum arresting force on a climber to 1,800 pounds (8 kN) in a fall.

"False crotch" means a device installed in a tree to set ropes during climbing or rigging because there is not a suitable natural crotch available, or to protect an available crotch, and/or to reduce wear on ropes.

"False crotch for rigging" means a pulley, block, sling, lashing, or metal ring affixed to a tree's leader or limb, through which a load line is passed, to lower or raise limbs or equipment.

"False crotch redirect" means [~~consists of~~] the use of a false crotch in conjunction with either a natural crotch or a second false crotch in instances where the arborist is working away from the trunk of the tree and could otherwise be subject to an uncontrolled pendulum swing in the event of a slip.

"Footlock" means to climb up a suspended rope by pulling with the hands and arms and pushing upward with the feet. The loose end of the rope is wrapped under the middle and over the top of one foot and is locked in place with pressure from the other foot.

"Friction point" means the point at which the rope surface of the climber's hitch rubs against the climbing line.

"Good working condition" means a term describing a piece of equipment that has no mechanical defects, has all guards in place, and is operated as intended by the manufacturer.

"Ground fault" means any undesirable current path from a current-carrying conductor to ground.

"Guarded" means covered, fenced, enclosed, or otherwise protected by suitable covers or casings, barrier rails or screens, mats, or platforms that have been designed by the electrical system owner/operator to minimize the possibility of dangerous approach or accidental contact by persons or objects under normal conditions. Also see unguarded.

"Handline" means a length of rope designated as a tool to leverage, lift, and hold tools, equipment, wood, or other objects; the proper rope strength is specified for each particular use.

"High-pressure excavation" means the removal or displacement of soil using pressurized air or water.

"Humboldt notch" means a directional felling cut into the side of a tree, facing the intended direction of fall and consisting of a horizontal face cut and an angled cut below it, creating a notch of approximately 45 degrees. A Humboldt cut is usually reserved for larger trees on steep slopes.

"Indirect contact" means indirect contact is made when any part of the body touches any conductive object, including tools, tree branches, trucks, equipment, or other objects, that is in contact with an energized electrical conductor. Such contact can also be made as the result of communication wires and cables, fences, or guy wires being accidentally energized.

"Job briefing" means the communication [before work begins] of at least the following subjects for arboricultural operations: hazards associated with the job, work procedures involved, special precautions, electrical hazards, job assignments, and personal protective equipment.

"Kilovolt, kV ([Tables Table] 1 [and 2])" means the term for 1,000 volts, abbreviated as kV. Higher voltages are generally given as kilovolts. Example: 12.5 kV (12,500 volts) and 19.9 kV (19,900 volts).

"Kilonewton, kN" means the measurement of force, abbreviated as kN. Equal to 224.8 pounds. Example: 24.02 kilonewtons equals 5,400 pounds.

"Ladder" means a two-, three-, or four-legged structure that utilizes vertical side legs with cross sections uniformly placed between the side legs to be used as steps; available in wood, aluminum, or fiberglass; used to ascend to and descend from a height. Also see tripod/orchard ladder.

"Lanyard" means a component of a climbing system consisting of a flexible line of rope, wire rope, or a strap that generally has a connector at each end for connecting the body support to a fall arrester, energy absorber, anchorage connector, or anchorage.

"Leg protection" means personal protective equipment constructed with cut-resistant material, such as ballistic nylon, intended to reduce the risk of injury to the legs during chain-saw operations.

["~~Line clearance~~" "~~Line-clearance tree trimming~~"] means the pruning, trimming, repairing, maintaining, removing, [~~treating,~~] or clearing of trees or the cutting of brush (vegetation management) that is within 10 feet (3.05 m) of electric supply lines and equipment [~~and vegetation management work performed by qualified line clearance arborists or qualified line clearance arborist trainees for the construction or maintenance of electric supply lines and/or the electric utility right of way corridor~~]. [~~Line clearance~~ ~~Line-clearance tree trimming~~] activities are performed by the employees of the owner or operator of the electrical or communication systems, or independent contractors engaged

on behalf of the owner or operator of the system to perform the work.

"Load binder" means a synthetic strap with a ratchet mechanism or a properly secured rope or chain to encircle a tree trunk or limb as a means of preventing splitting.

"Manual land clearing" means the removal of trees, shrubs, and vines using chain saws or other cutting tools where there are no structures or objects that need to be avoided and pull lines are not used to pull or drop a tree and/or trunk to the ground.

"Maul" means a heavy-handled hammer, sometimes made with a single edge; used to drive wedges or split wood.

"Minimum approach distance" means safe working distances from overhead electrical conductors as defined in [~~Tables Table~~] 1 [~~and 2~~] of 16VAC25-73-50.

"Open-face notch" means a directional felling cut into the side of the tree, facing the intended direction of fall and consisting of two cuts creating a notch greater than 70 degrees.

"Outrigger" means built-in device used to stabilize cranes, aerial devices, and similar equipment.

"Phase" means any current-carrying conductor that has an electric potential other than ground (ground is assumed to be 0 volts).

"Phase to ground ([Tables Table] 1 [and 2])" means the electric potential (voltage) between a conductor and ground.

"Phase to phase" means the electrical potential (voltage) between two conductors, each having its own electric potential relative to ground.

"Primary conductor" means any conductor, including aluminum, copper, or aluminum conductor steel reinforced (ACSR), that is bare, covered, or insulated, with a nominal voltage above 750 volts.

"Proximity" means an area within 10 feet (3.05 m) of energized overhead electrical conductors rated 50 kV phase to phase or less. For overhead electrical conductors rated more than 50 kV phase to phase, the distance is increased 4/10 inch (10 mm) for each additional kV.

"Prusik knot" means a sliding friction knot, as in a work-positioning lanyard.

"Prusik loop" means an endless loop of rope used to fashion a Prusik knot. The endless loop may be spliced or knotted with, at minimum, a double fisherman's knot.

"Qualified arborist" means an individual who, [~~by possession of a recognized degree, certification, or professional standing, or~~] through related training and on-the-job experience, is familiar with the equipment and hazards involved in arboricultural operations and who has

Regulations

demonstrated ability in the performance of the special techniques involved.

"Qualified arborist trainee" means an individual undergoing on-the-job training under the direct supervision of a qualified arborist. In the course of such training, the trainee becomes familiar with the hazards and equipment involved in arboricultural operations and demonstrates ability in the performance of the special techniques involved.

"Qualified crane operator" means an individual who, by reason of a recognized credential or professional standing, or through related training and on-the-job experience, is familiar with the equipment and hazards involved with arboriculture crane operations and who has demonstrated competence in operating a crane and performing the special techniques involved.

"Qualified line-clearance arborist" means an individual who, through related training and on-the-job experience, is familiar with the equipment and hazards in line clearance and has demonstrated the ability to perform the special techniques involved. This individual may or may not currently be employed by a line-clearance contractor.

"Qualified line-clearance arborist trainee" means an individual undergoing line-clearance training under the direct supervision of a qualified line-clearance arborist. In the course of such training, the trainee becomes familiar with the equipment and hazards in line clearance and demonstrates ability in the performance of the special techniques involved.

"Qualified personnel" means an individual who, by reason of training and experience, has demonstrated the ability to safely perform assigned duties and, where required, is properly licensed in accordance with federal, state, or local laws and regulations.

"Quick-acting connector" means hose connectors in a hydraulic or pneumatic system designed to allow rapid connection or disconnection without leakage when the system is pressurized.

"Saddle, arborist": see arborist saddle.

"Secured (object)" means made firm or tight; fastened. Example: The load is secured to the truck.

"Secured (person)" means when an arborist is safeguarded from unintended movement by utilizing a climbing system that is attached to the arborist and connected to a tree or other stable support. Examples of being secured include, but are not limited to, (i) being tied in, (ii) using a work-positioning lanyard, (iii) being on belay, and (iv) ascending the arborist climbing line using the footlock technique while utilizing a Prusik loop or ascenders.

"Shall," as used in this regulation, denotes a mandatory requirement.

"Should," as used in this regulation, denotes an advisory recommendation.

"Snap hook" means [~~commonly called~~] a self-locking or double-locking rope snap. The locking type (required by this regulation for climbing) has a self-closing, self-locking gate that remains closed and locked until intentionally opened by the user for connection or disconnection. A captive eye is an integral part of a snap hook but is independent of the hook and gate portion.

"Split tail system and split tail" refers to a system in which the climbing line is tied to the saddle, preferably indirectly with an ANSI-compliant carabiner or locking rope snap, without leaving a tail beyond the termination. The climbing/friction hitch is then tied onto the climbing line with a separate short section of climbing line called a split tail. The split tail is separately connected to a designated anchor point on the saddle.

"Spotter" means a person within voice and visual communication of the driver and located in a position to view the area in which the vehicle (unit) is backing to help ensure that the backing operation is, and will remain, safe.

"Step potential" means the voltage between the feet of a person standing near an energized grounded object. It is equal to the difference in voltage, given by the voltage distribution curve, between two points at different distances from the electrode. A person could be at risk of injury during a fault simply by standing near the grounding point.

"Tackle blocks and pulleys" means equipment used in most tree situations to take a strain rather than move a load. Critical components of the system are the appropriate ropes, blocks, and, especially, the lock or connecting link.

"Termination knot" means any knot suitable for rope termination, including, but not limited to, double fisherman's loop (scaffold hitch), anchor hitch, and buntline hitch.

"Tied in" means the term that describes an arborist whose climbing line has been run through a natural or false crotch attached to an arborist's saddle and completed with a climbing hitch or mechanical device, permitting controlled movement and work positioning.

"Tool lanyard" means short line or strap used to secure a tool while working aloft.

"Tripod/orchard ladder" means a three-legged ladder that utilizes the third leg to form a tripod to stabilize itself among orchard trees and/or shrubs. It is recommended for use on turf for better stability and to avoid slippage of the legs. Not recommended for use on hard surfaces.

"Unguarded" means not guarded from approach or contact with electrical conductors.

"Volt" means a unit of electric potential difference between two points. Lower-voltage systems are generally expressed in terms of volts, for example, 120 volts or 240 volts.

"Wedge" means a piece of material with two sides meeting at an angle; used to raise or split objects by applying a driving force, such as with a hammer.

"Wheel chock" means wedge-shaped block manufactured or employer approved to prevent unintentional movement of vehicle. Wheel chocks are placed in front of or in back of a vehicle's tires or tracks. If necessary, the chocks can be placed both in front and in back of the tires or tracks.

"Worker" means an individual involved in an arboricultural operation, such as ground operations, equipment operations, and removal operations.

"Working load" means limiting load values derived from the minimum breaking strength of a cord or rope divided by the design factor. For example, given a minimum breaking strength of 10,000 pounds (44.48 kN) and a design factor of 10: $10,000/10 = 1,000$ (working load, in pounds) or given a minimum breaking strength of 10,000 pounds (44.48 kN) and a design factor of 5: $10,000/5 = 2,000$ (working load, in pounds).

"Working-load limit" means the working load that must not be exceeded for a particular application as established by a regulatory or standards-setting agency.

"Workline" means rope used for lifting, lowering, or guiding limbs or equipment, or both, into or out of the tree.

"Work-positioning system" means an arborist climbing system designed to be used under tension to support the arborist or other worker on an elevated vertical surface, such as a tree limb, and allow him to work with both hands free.

16VAC25-73-30. Orientation and training.

A. Prior to permitting an employee to engage in any arboricultural activity covered by this regulation, the employer shall ensure that each employee receives orientation and training on the requirements of this regulation.

B. Refresher training on applicable provisions of this regulation shall be provided by the employer for any employee who has:

1. Been observed to violate the requirements of this regulation;
2. Been involved in an accident or near miss accident; or
3. Received an evaluation that reveals the employee is not working in a safe manner in accordance with the requirements of this regulation.

16VAC25-73-40. General safety requirements.

A. General.

1. Machinery, vehicles, tools, materials and equipment shall conform to the requirements of this regulation. 16VAC25-60-120 is hereby incorporated by reference.

2. Employers shall instruct their employees in the proper use, inspection, and maintenance of tools and equipment, including ropes and lines, and shall require that appropriate working practices be followed.

3. A qualified arborist shall determine whether direct supervision is needed on a jobsite.

4. A job briefing shall be performed by the qualified arborist in charge before the start of each job. The briefing shall be communicated to all affected workers. An employee working alone need not conduct a job briefing. However, the employer shall ensure that the tasks are being performed as if a briefing were required.

B. Traffic control around the jobsite.

1. High-visibility safety apparel and headgear, when required, shall conform to the Virginia Department of Transportation's (VDOT) Virginia Work Area Protection Manual.

2. Effective means for controlling pedestrian and vehicular traffic shall be instituted on every jobsite where necessary, in accordance with the VDOT's Virginia Work Area Protection Manual and applicable state and local laws and regulations.

3. Temporary traffic-control devices used in arboricultural operations shall conform to the VDOT Virginia Work Area Protection Manual and applicable federal and state regulations.

C. Emergency procedures and readiness.

1. Emergency phone numbers shall be available when and where arboricultural operations are being carried out. Arborists and other workers shall be instructed as to the specific location of such information.

2. A first-aid kit, adequately stocked and maintained in accordance with [~~16VAC25-95~~ 16VAC25-90-1910.151], shall be provided by the employer, when and where arboricultural operations are being carried out. Arborists and other workers shall be instructed in its use and specific location.

3. Instruction shall be provided in the identification, preventive measures, and first-aid treatment of common poisonous plants (poison ivy, poison oak, and poison sumac), stinging and biting insects, and other pests indigenous to the area in which work is to be performed.

4. Employees who may be faced with a rescue decision shall receive training in emergency response and rescue procedures appropriate and applicable to the work to be performed, as well as training to recognize the hazards

Regulations

inherent in rescue efforts (see 16VAC25-73-140, Appendix E).

5. [~~Cardiopulmonary resuscitation (CPR) and first aid~~ First-aid] training shall be provided in accordance with [~~16VAC25-95~~ 16VAC25-90-1910.151].

D. Personal protective equipment (PPE).

1. Personal protective equipment (PPE), as outlined in this section, shall be required when there is a reasonable probability of injury or illness that can be prevented by such protection, and when required by 16VAC25-90-1910.132. Training shall be provided in the use, care, maintenance, fit, and life of personal protective equipment.

2. Workers engaged in arboricultural operations shall wear head protection (helmets) that conforms to ANSI Z89.1, and in accordance with 16VAC25-90-1910.135. Class E helmets shall be worn when working in proximity to electrical conductors, in accordance with ANSI Z89.1. Workers shall not place reliance on the dielectric capabilities of such helmets.

3. Face protection shall comply with 16VAC25-90-1910.133.

4. Clothing and footwear appropriate to the known job hazards shall be approved by the employer and worn by the employee in accordance with 16VAC25-90-1910.132.

5. Respiratory protection shall comply with 16VAC25-90-134.

6. Hearing protection provided by the employer shall be worn when it is not practical to decrease or isolate noise levels that exceed acceptable standards and in accordance with 16VAC25-90-1910.95.

7. Eye protection shall comply with 16VAC25-90-1910.133 and shall be worn when engaged in arboricultural operations.

8. Chain-saw resistant leg protection shall be worn while operating a chain saw during ground operations.

E. Fire protection.

1. Equipment shall be refueled only after the engine has stopped. Spilled fuel shall be removed from equipment before restarting.

2. Equipment shall not be operated within 10 feet (3.05 m) of refueling operations or areas in which refueling has recently taken place.

3. Flammable liquids shall be stored, handled, and dispensed from approved containers.

4. Smoking shall be prohibited when handling or working around flammable liquids.

5. Clothing contaminated by flammable liquid shall be changed as soon as possible.

6. Open flame and other sources of ignition shall be avoided.

16VAC25-73-50. Electrical hazards.

A. General.

1. All overhead and underground electrical conductors and all communication wires and cables shall be considered energized with potentially fatal voltages. [This section does not apply to line-clearance tree trimming, as defined in 16VAC25-73-20, that shall be conducted in accordance with 16VAC25-90-1910.269. Nonline-clearance tree trimming work around overhead high voltage lines covered by §§ 59.1-406 through 59.1-414 of the Code of Virginia, Overhead High Voltage Line Safety Act (Act) (voltage in excess of 600 volts as defined in the Act), shall be conducted in accordance with the Act. Nonline-clearance tree trimming work around overhead electrical lines of 600 volts or less not covered by the Act shall be conducted in accordance with 16VAC25-90-1910.333(c)(1).]

2. The employer shall certify in writing that each employee has been trained to recognize and is appropriately qualified to work within proximity to electrical hazards that are applicable to the employee's assignment.

3. Arborists and other workers shall be instructed that:

a. Electrical shock will occur when a person, by either direct contact or indirect contact with an energized electrical conductor, energized tree limb, tool, equipment, or other object, provides a path for the flow of electricity to a grounded object or to the ground itself. Simultaneous contact with two energized conductors phase to phase will also cause electric shock that may result in serious or fatal injury.

b. Electrical shock may occur as a result of ground fault when a person stands near a grounded object (for example, if an uninsulated aerial device comes into contact with a conductor with outriggers down).

c. In the event of a downed energized electrical conductor or energized grounded object, there exists the hazard of step potential.

[~~4. If the minimum approach distance for a qualified line-clearance arborist (shown in Table 1 of this section) or for a qualified arborist (shown in Table 2 of this section) cannot be maintained during arboricultural operations, the electrical system owner/operator shall be advised and an electrical hazard abatement plan implemented before any work is performed in proximity to energized electrical conductors.]~~

B. Working in proximity to electrical hazards.

1. The items contained in subsection A of this section shall always be included in the review of this section. Sections 59.1-406 through 59.1-414 of the Code of Virginia, Overhead High Voltage Line Safety Act (Act), are hereby incorporated by reference, and apply as specified in the Act anytime the voltage of overhead high voltage lines [~~as defined in the Act.~~] exceeds 600 volts [as defined in the Act.] The Act does not apply anytime [~~line clearance~~] activities are performed by the employees of the owner or operator of the electrical or communication systems, or independent contractors engaged on behalf of the owner or operator of the system to perform the work.

2. An inspection shall be made by a qualified arborist to determine whether an electrical hazard exists before climbing, otherwise entering, or performing work in or on a tree.

3. Only qualified line-clearance arborists or qualified line-clearance arborist trainees shall be assigned to work where an electrical hazard exists. Qualified line-clearance arborist trainees shall be under the direct supervision of qualified line-clearance arborists. A qualified line-clearance arborist

trainee shall not serve as a ground observer for another qualified line-clearance arborist trainee who is engaged in line clearing operations aloft, unless a qualified arborist is also present at the work site.

[~~4. A second qualified line-clearance arborist or line-clearance arborist trainee shall be within visual or normal (that is unassisted) voice communication during line-clearing operations aloft when an arborist must approach closer than 10 feet (3.05 m) to any energized electrical conductor in excess of 750 volts (primary conductor) or when:~~

a. Branches or limbs closer than 10 feet (3.05 m) to any energized electrical conductor in excess of 750 volts (primary conductor) are being removed, which cannot first be cut (with a nonconductive pole pruner/pole saw) to sufficiently clear electrical conductors, so as to avoid contact; or

b. Roping is required to remove branches or limbs from such electrical conductors.

Table 1.

Minimum approach distances from energized conductors for qualified line clearance arborists and qualified line clearance arborist trainees.

Nominal voltage in kilovolts (kV) phase to phase	Includes 1910.269 elevation factor, sea level to 5,000 ft*		Includes 1910.269 elevation factor, 5,000-10,000 ft*		Includes 1910.269 elevation factor, 10,001-14,000 ft*	
	ft in	m	ft in	m	ft in	m
0.051 to 0.3	Avoid contact		Avoid contact		Avoid contact	
0.301 to 0.75	1-01	0.33	1-03	0.38	1-04	0.41
0.751 to 15.0	2-05	0.7	2-09	0.81	3-00	0.88
15.1 to 36.0	3-00	0.91	3-05	1.04	3-09	1
36.1 to 46.0	3-04	1.01	3-10	1.16	4-02	1.09
46.1 to 72.5	4-02	1.26	4-09	1.44	5-02	1.3
72.6 to 121.0	4-06	1.36	5-02	1.55	5-07	1.68
138.0 to 145.0	5-02	1.58	5-11	1.8	6-05	1.96
161.0 to 169.0	6-00	1.8	6-10	2.06	7-05	2.23
230.0 to 242.0	7-11	2.39	9-00	2.73	9-09	2.95
345.0 to 362.0	13-02	3.99	15-00	4.56	16-03	4.94
500.0 to 550.0	19-00	5.78	21-09	6.6	23-07	7.16
765.0 to 800.0	27-04	8.31	31-03	9.5	33-10	10.29

*Exceeds phase to ground; elevation factor per 29 CFR 1910.269.

Note: At time of publication, the minimum approach distances in this table for voltages between 301 and 1,000 volts exceed those specified by 29 CFR 1910.269.]

Regulations

Table [~~2~~ 1].

Minimum approach distances to energized conductors for persons other than qualified line-clearance arborists and qualified line-clearance arborist trainees

Nominal voltage in kilovolts (kV) phase to phase*	Distance	
	ft-in	M
0.0 to 1.0	10-00	3.05
1.1 to 15.0	10-00	3.05
15.1 to 36.0	10-00	3.05
36.1 to 50.0	10-00	3.05
50.1 to 72.5	10-09	3.28
72.6 to 121.0	12-04	3.76
138.0 to 145.0	13-02	4
161.0 to 169.0	14-00	4.24
230.0 to 242.0	16-05	4.97
345.0 to 362.0	20-05	6.17
500.0 to 550.0	26-08	8.05
785.0 to 800.0	35-00	10.55

*Exceeds phase to ground per 29 CFR 1910.333.

~~[5. Qualified line clearance arborists and line clearance arborist trainees shall maintain minimum approach distances from energized electrical conductors in accordance with Table 1.~~

~~6. 4.] All other arborists and other workers shall maintain a minimum approach distance from energized electrical conductors in accordance with Table [~~2~~ 1].~~

~~[5. Branches hanging on an energized electrical conductor shall be removed using nonconductive equipment.~~

~~8. 6.] The tie-in position shall be above the work area and located in such a way that a slip would swing the arborist away from any energized electrical conductor or other identified hazard.~~

~~[9. 7.] While climbing, the arborist shall climb on the side of the tree that is away from energized electrical conductors while maintaining the required distances shown in Table 1 [~~or 2, as applicable~~].~~

~~[10. 8.] Footwear, including lineman's overshoes or those with electrical-resistant soles, shall not be considered as providing any measure of safety from electrical hazards.~~

~~[11. 9.] Rubber gloves, with or without leather or other protective covering, shall not be considered as providing any measure of safety from electrical hazards.~~

~~[12. 10.] A rope that is wet, that is contaminated to the extent that its insulating capacity is impaired, or that is otherwise not to be considered insulated for the voltage involved shall not be used near exposed energy lines.~~

~~[13. 11.] Ladders, platforms, and aerial devices, including insulated aerial devices, shall be subject to minimum approach distances in accordance with Table 1 [~~or 2, as applicable~~].~~

~~[14. 12.] Aerial devices with attached equipment (such as chippers) brought into contact with energized electrical conductors shall be considered energized. Contact by people and/or equipment shall be avoided.~~

~~[15. 13.] Emergency response to an electric contact shall be performed in accordance with 16VAC25-73-40 C.~~

~~[C. Storm work and emergency conditions: line clearance.~~

~~1. The items contained in subsection A of this section shall always be included in the review of this section.~~

~~2. Line clearance shall not be performed during adverse weather conditions such as thunderstorms, high winds, and snow and ice storms.~~

~~3. Qualified line clearance arborists and qualified line clearance arborist trainees performing line clearance after a storm or under similar conditions shall be trained in the special hazards associated with this type of work.~~

~~4. Line clearance operations shall be suspended when adverse weather conditions or emergency conditions develop involving energized electrical conductors. Electrical system owners/operators shall be notified immediately.]~~

16VAC25-73-60. Safe use of vehicles and mobile equipment used in arboriculture.

A. General.

1. Prior to daily use of any vehicles and mobile equipment (units), visual walk-around inspections and operational checks shall be made in accordance with manufacturers' and owners' instructions (see 16VAC25-60-120) and applicable federal, state, and local requirements.

2. Units shall be equipped and maintained with manufacturers' safety devices, instructions, warnings, and safeguards. Arborists and other workers shall follow instructions provided by manufacturers.

3. Manufacturers' preventive maintenance inspections and parts replacement procedures shall be followed.

4. Manufacturers' instructions shall be followed in detecting hydraulic leaks. No part of the body shall be used to locate or stop hydraulic leaks.

5. Units shall be operated or maintained only by authorized and qualified personnel in accordance with company policies and federal, state, or local laws.

6. Material and equipment carried on vehicles shall be properly stored and secured in compliance with the design of the unit in order to prevent the movement of material or equipment.

7. [~~Step~~ If previously installed by the manufacturer, step] surfaces and platforms on mobile equipment shall be [~~skid resistant~~ properly maintained].

8. Safety seat belts, when provided by the manufacturer, shall be worn while a unit is being operated.

9. Riding or working outside or on top of units shall not be permitted unless the units are designed for that purpose or the operator is performing maintenance or inspection. Fall protection shall be provided for employees performing maintenance or inspection on top of units six feet or more above a lower level. [Fall protection is not required when performing inspections on top of units six feet or more above a lower level.]

10. Hoisting or lifting equipment on vehicles shall be used within rated capacities as stated by the manufacturers' specifications.

11. Units with obscured rear vision, particularly those with towed equipment, shall be backed up in accordance with 16VAC25-97.

12. When units are left unattended, keys shall be removed from ignition, the wheels chocked, and, if applicable, the parking brake applied.

13. Units shall be turned off, keys removed from the ignition, and rotating parts at rest prior to making repairs or adjustments, except where manufacturers' procedures require otherwise. Defects or malfunctions affecting the safe operation of equipment shall be corrected before such units are placed into use.

14. Personal protective equipment (for example, eye, head, hand, and ear protection) shall be worn in accordance with 16VAC25-73-40 D.

15. When towing, safety chains shall be crossed under the tongue of the unit being towed and connected to the towing vehicle.

16. The unit's exhaust system shall not present a fire hazard.

17. Towed units that detach from another unit (for example, a motorized vehicle) shall be chocked or otherwise secured in place.

18. Units operated off-road shall be operated in the proper gear and at the proper speed relative to the operating environment and the manufacturers' instructions and guidelines.

B. Aerial devices.

1. The items contained in subsection A of this section shall always be included in the review of this section. 16VAC25-90-1910.67 is hereby incorporated by reference. Damaged aerial devices and vehicles shall be removed from service and tagged until repaired or discarded.

2. Aerial devices shall be provided with an approved point of attachment on which to secure a full-body harness with an energy-absorbing lanyard, which shall be worn when aloft.

3. Booms, buckets, or any other part of the aerial device shall not be allowed to make contact or violate minimum approach distances with energized electrical conductors, poles, or similar conductive objects. See Table [2.1] of 16VAC25-73-50 or §§ 59.1-406 through 59.1-414 of the Code of Virginia (Overhead High Voltage Line Safety Act), as applicable.

4. Aerial devices or aerial ladders shall not be used as cranes or hoists to lift or lower materials or tree parts,

Regulations

unless they were specifically designed by the manufacturer to do so (see 16VAC25-60-120).

5. Wheel chocks shall be set before using an aerial device unless the device has no wheels on the ground or is designed for use without chocks.

6. Units equipped with outriggers or a stabilizing system shall be operated in a manner consistent with manufacturers' requirements.

7. The operator shall ensure adequate clearance exists and give warning to all employees in the work area prior to lowering outriggers. Pads shall be placed under outrigger feet when they are needed to ensure stable footing.

8. When operating aerial devices, the operator shall look in the direction the bucket is traveling and be aware of the location of the booms in relation to all other objects and hazards.

9. Clearances from passing vehicles shall be maintained, or traffic control shall be provided when booms or buckets are operated over roads in accordance with VDOT's Virginia Work Area Protection Manual.

10. One-person buckets shall not have more than one person in them during operations.

11. Hydraulic/pneumatic tools shall be disconnected when they are being serviced or adjusted, except where manufacturers' procedures require otherwise.

12. To avoid flying particles or whipping hydraulic/pneumatic hoses, pressure shall be released before connections are broken, except where quick-acting connectors are used. Hydraulic/pneumatic hoses shall never be kinked in order to cut off pressure.

13. No part of the body shall be used to locate or stop hydraulic leaks.

14. Hoses affecting dielectric characteristics of equipment shall meet manufacturers' requirements.

15. The flash point of hydraulic fluid shall meet the minimum set by the manufacturer.

16. Combined loads shall not exceed rated lift capacities. Load ratings shall be conspicuously and permanently posted on aerial devices in accordance with ANSI A92.2.

17. Electric cables/cords used with electric saws or lights, or other conductive material shall not be run from the vehicle to the bucket when arborists are working in proximity to energized electrical conductors.

18. Aerial devices shall not be moved with an arborist on an elevated platform (for example, a bucket) except when equipment is specifically designed for such operation.

19. Holes shall not be drilled in buckets or liners.

20. During aerial device operations, arborists and other workers who are not qualified line-clearance arborists shall maintain a minimum approach distance from energized electrical conductors in accordance with Table [2 1] of 16VAC25-73-50. Only qualified line-clearance arborists or qualified line-clearance arborist trainees using an insulated aerial device may operate in accordance with minimum approach distances provided in Table 1.

21. Arborists and other workers shall be instructed that insulated aerial buckets do not protect them from other electric paths to the ground, such as paths through trees, guy wires, or from one phase wire to the second phase wire, any one of which can be fatal.

22. All underground hazards shall be located prior to operating aerial lift devices off-road. These hazards could include natural gas tanks, underground oil tanks, and septic systems.

C. Brush chippers.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged brush chippers shall be removed from service and tagged until repaired or discarded.

2. Access panels (for example, guards) for maintenance and adjustment, including discharge chute and cutter housing, shall be closed and secured prior to starting the engine of brush chippers. These access panels shall not be opened or unsecured until the engine and all moving parts have come to a complete stop (see 16VAC25-73-110, Appendix B, General Safety Procedures that Apply to All Tree Work).

3. Rotary drum or disc brush chippers not equipped with a mechanical infeed system shall be equipped with an infeed hopper not less than 85 inches (2.15 m) measured from the blades or knives to ground level over the center line of the hopper. Side members of the infeed hopper shall have sufficient height so as to prevent workers from contacting the blades or knives during operations.

4. Rotary drum or disc brush chippers not equipped with a mechanical infeed system shall have a flexible anti-kickback device installed in the infeed hopper to reduce the risk of injury from flying chips and debris.

5. Chippers equipped with a mechanical infeed system shall have a quick-stop and reversing device on the infeed system. The activating mechanism for the quick-stop and reversing device shall be located across the top, along each side, and close to the feed end of the infeed hopper within easy reach of the worker.

6. Vision, hearing, and other appropriate personal protective equipment shall be worn when in the immediate area of a brush chipper in accordance with 16VAC25-73-40 D.

7. Arborists, mechanics, and other workers shall not, under any circumstances, reach into the infeed hopper when the cutter disc, rotary drum, or feed rollers are moving.

8. When trailer chippers are detached from the vehicles, they shall be chocked or otherwise secured in place.

9. When in a towing position, chipper safety chains shall be crossed under the tongue of the chipper and properly affixed to the towing vehicle.

10. See 16VAC25-73-90 F [3] for additional requirements.

D. Sprayers and related equipment.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged sprayers and related equipment shall be removed from service and tagged until repaired or discarded.

2. Walking and working surfaces of all sprayers and related equipment shall be covered with skid-resistant material.

3. Equipment on which the applicator/operator stands while the vehicle is in motion shall be equipped with guardrails around the working area. Guardrails shall be constructed in accordance with 16VAC25-90-1910.23.

4. The applicator/operator shall make a visual inspection of hoses, fittings, exposed plumbing, tanks, covers, and related equipment prior to its use each workday.

5. The applicator/operator shall not allow hoses or other parts of the equipment to create a tripping hazard for coworkers or the public.

6. The applicator/operator shall have a firm grip on the spray gun/excavation tool when pulling the trigger.

7. The operator of high-pressure excavation equipment shall wear a face shield in addition to eye protection.

8. Related equipment:

a. The applicator/operator shall be aware of underground utility locations when drilling holes in the ground for fertilizer or pesticide applications.

b. The equipment shall have splash guards, and the applicator shall wear eye protection when injecting liquid fertilizer or pesticides into the ground.

c. The applicator shall wear eye protection and follow label instructions when injecting liquids into trees.

E. Stump cutters.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged stump cutters shall be removed from service and tagged until repaired or discarded.

2. Stump cutters shall be equipped with enclosures or guards that reduce the risk of injury during operation.

Enclosures or guards shall be kept in place when stump cutters are operative.

3. Arborists and other workers in the immediate stump-cutting work zone shall wear vision, hearing, and other personal protective equipment in accordance with 16VAC25-73-40 D.

4. When in a towing position, stump-cutter safety chains shall be crossed under the tongue of the stump cutter and properly affixed to the towing vehicle.

5. Towable stump cutters or stump-cutter trailers, when detached from the vehicle, shall be chocked or otherwise secured in place.

6. The operator shall be aware of underground utility locations prior to performing work.

F. Vehicles.

1. The items contained in subsection A of this section shall always be included in the review of this section. (See 16VAC25-60-120.) Damaged vehicles shall be removed from service and tagged until repaired or discarded.

2. A steel bulkhead or equivalent protective devices shall be provided to protect workers from load shifts in vehicles carrying logs or other material.

3. Load-securing procedures shall be followed to prevent accidental shifting or discharge of logs or other materials from the vehicle during transport.

4. Logs or other material shall not overhang the sides; obscure taillights, brake lights, or vision; or exceed height limits per state and local requirements for bridges, overpasses, utility lines, or other overhead hazards.

5. To avoid the hazard of spontaneous combustion or the generation of undesirable odors, wood chips shall not be left in vehicles for extended periods.

G. Log loaders, knucklebooms, cranes, and related hoists

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged log loaders, knuckle booms, cranes and related hoists shall be removed from service and tagged until repaired or discarded.

2. Log loaders, cranes, and related hoisting equipment shall be inspected in accordance with applicable regulations as well as manufacturers' instructions and guidelines. Chokers, slings, and other means of lifting, lowering, or rigging equipment shall be inspected before each use. An inspection procedure checklist shall be available to the crew.

3. Operators of hoisting equipment shall be trained and shall maintain a minimum approach distance from energized conductors in accordance with Table 1 [~~or 2~~] of

Regulations

16VAC25-73-50, or §§ 59.1-406 through 59.1-414, Overhead High Voltage Line Safety Act, as applicable. A spotter shall be used when work is being performed in proximity to electrical conductors. Personnel assigned to work in proximity to the tree removal shall be trained and follow guidelines for electrical hazards (see 16VAC25-73-50).

4. The crane operator shall be familiar with the potential hazards encountered and operational techniques used in tree work.

5. Cranes with telescoping booms shall be equipped with an anti-two block device. A boom angle indicator and a device to indicate the boom's extended length shall be clearly visible to the operator at all times. A load rating chart with clearly legible letters and figures shall be provided with each crane and securely fixed at a location easily visible to the operator.

6. Operators of hoisting equipment shall remain at the controls while a load is lifted, suspended, or lowered.

7. Tree sections shall be rigged to minimize load shifting. Controlled load lowering shall be employed. Shock-loading shall be avoided, and free fall is prohibited. A green log weight chart (see 16VAC25-73-130, Appendix D) [] shall be available to the crew. All workers shall be kept clear of loads about to be lifted and of suspended loads.

8. Riding the load line of a crane while it is under load tension shall be prohibited.

9. The use of a crane to hoist a qualified arborist into position is prohibited, except when the use of conventional means of reaching the work area, such as, but not limited to, an aerial lift, would be more hazardous or is not physically possible because of worksite conditions. If the above exception applies, a qualified arborist may be hoisted into position utilizing a crane if the crane manufacturer's specifications and limitations do not prohibit such use, and any fall protection requirements of the crane manufacturer are complied with, and the arborist is tied in with an arborist climbing line and arborist saddle and secured to a designated anchor point on the boom line or crane. The following procedures shall be followed when an arborist is to be lifted by a crane:

a. The qualified crane operator, the signal person, the person responsible for the work to be performed and the arborist to be lifted shall meet prior to the work to review the procedures to be followed. A job briefing shall be done before any work begins, in accordance with 16VAC25-73-40 A 4.

b. The arborist climbing line shall be secured to the crane in such a way that it does not interfere with the function of any damage-prevention or warning device on the crane

and so that no part of the crane compromises the climbing line or any component of the climbing system.

c. The crane operator shall test the adequacy of footing prior to any lifting, and shall conduct a trial lift immediately before lifting the arborist into position. The crane operator shall determine that all systems, controls and safety devices are activated and functioning properly; that no interferences exist; and that all configurations necessary to reach the intended work location will allow the operator to remain under the 50% limit of the hoist's rated capacity. The crane shall be uniformly level and located on firm footing. If necessary, blocking shall be used so that the support system does not exceed its load-bearing capabilities. Cranes equipped with outriggers shall have them all fully extended and properly set, as applicable, before lifting and lowering operations begin and/or before the qualified arborist is lifted.

d. Lifting and supporting shall be done under controlled conditions and under the direction of a qualified arborist or an appointed signal person. Lifting and supporting operations shall not be performed during adverse weather conditions such as thunderstorms, high winds, and snow and ice storms.

e. The load-line hoist drum shall have a system or other device on the power train, other than the load hoist brake, that regulates the lowering speed of the hoist mechanism. Load lines shall be capable of supporting, without failure, at least seven times the maximum intended load, except that where rotation resistant rope is used, the lines shall be capable of supporting without failure, at least 10 times the maximum intended load. The required design factor is achieved by taking the current safety factor of 3.5 and applying 50% de-rating of the crane capacity.

f. Communication between the crane operator and the arborist being lifted shall be maintained either directly or through the appointed signal person. This communication shall either be visual, using the accepted hand signals, or audible, using voice or radio. Radio communication shall be used to control blind picks. The crew members shall know and follow hand signals for standard crane operations (see 16VAC25-73-150, Appendix F).

g. The crane operator shall remain at the controls when the qualified arborist is attached to the crane and during lifting and lowering operations.

h. The crane boom and load line shall be moved in a slow, controlled, cautious manner when the arborist is attached. Lifting or lowering speed shall not exceed 100 feet/minute (0.5 m/sec), and any sudden movements shall be avoided. The crane shall be operated so that lowering is power controlled.

i. The crane carrier shall not travel at any time while the qualified arborist is attached. An accurate determination of the load radius to be used during lifting shall be made before the qualified arborist is hoisted.

j. The qualified arborist shall be detached from the crane any time it comes under load tension.

H. Specialized units.

1. The items contained in subsection A of this section shall always be included in the review of this section.

2. Off-road and tracked vehicles shall be operated at the proper speed and in the proper gear relative to the operating environment and the manufacturer's instructions and guidelines.

3. Deadman controls on towing equipment for brush hogs and similar implements shall be used and maintained in good working condition. If the deadman control is malfunctioning or not operational, the equipment shall be removed from service and tagged until it has been repaired or discarded. When deadman controls were not provided by the manufacturer, the worker shall disengage the power source to the rotary or cutter head before dismounting.

I. Equipment-mounted winches.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged equipment mounted winches shall be removed from service and tagged until repaired or discarded.

2. Operators shall wear the appropriate personal protective equipment during winch operations, including eye and head protection.

3. The winch cable/synthetic line shall be inspected daily for broken or worn strands, bird caging, major kinks, and other defects. Damaged cables shall be removed from service and tagged until repaired or discarded.

4. Cable hooks and attachment points shall be inspected for damage. Damaged hooks or attachment assemblies shall be removed from service and tagged until repaired or discarded.

5. All mounting bolts and hardware shall be inspected for loose or missing components. The winch shall not be used until complete repairs are made to damaged or missing bolts and hardware.

6. Operators shall be aware of the dangers of load or cable breakage and ensure that all personnel remain clear of the recoil area in the event of load or cable breakage.

7. All winch operators shall be properly trained and be aware of the inherent dangers associated with winch operations.

8. Operators shall be aware of the winch cable at all times during extension and ensure that it does not become a hazard to personnel or machinery.

9. Winch systems and cables shall be used only as intended and instructed by the manufacturer.

10. The winch shall never be used with personnel, including the operator, within the span of the winch cable and the winch.

11. Pinch point hazards develop during winching operations; therefore, all operators involved in the winching operation shall constantly be aware of such hazards and stand clear of these areas.

12. All loads shall be pulled in such a manner as to avoid angles that may result in tipping, cause the vehicle to become unstable, or result in unintended movement of the vehicle.

13. Pulling loads from the side requires special equipment and techniques. Therefore, loads shall be pulled in line with the winch unless the winch is properly equipped with a fair lead and the operator is trained to pull loads at an angle.

14. The operator shall ensure that the vehicle supporting the winch is secured to avoid unintended movement.

15. The operator shall ensure that all rigging points comply with 16VAC25-73-90 D.

16. To ensure precise communication, an effective means of communication shall be established and used with all workers involved in the winching operations (see 16VAC25-73-90 D 14).

16VAC25-73-70. Portable power hand tools.

A. General.

1. The purpose of this section is to provide guidelines for arborists and other workers pertaining to the safe use and care of portable power hand tools. Damaged portable power tools shall be removed from service and tagged until repaired or discarded.

2. Manufacturers' operating and safety instructions shall be followed (see 16VAC25-60-120).

3. Before starting or otherwise using any portable power tools, a communication system shall be established in accordance with the requirements of 16VAC25-73-90 B 1.

B. Portable electric power tools.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged portable electric power tools shall be removed from service and tagged until repaired or discarded.

Regulations

2. Corded electric power tools shall not be used in trees or aerial devices near energized electrical conductors where there is a possibility of power tools or supply cords contacting the conductor.

3. All corded portable electric power tools shall be:

a. Equipped with three-wire cords having the ground wire permanently connected to the tool frame and a means for grounding the other end;

b. Double insulated and permanently labeled as "double insulated"; or

c. Connected to power supplies by means of an isolating transformer or other isolated power supply.

4. Extension cords shall be maintained in safe condition. Exposed metal sockets shall not be used. Worn or frayed extension cords shall be removed from service and tagged until repaired or discarded.

5. Arborists and other workers shall:

a. Prevent cords from becoming entangled, damaged, or cut by blades and bits;

b. Not lay extension cords in water; and

c. Support electric power tools and supply cords by a tool lanyard or separate line, when used aloft.

C. Chain saws.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged chain saws shall be removed from service and tagged until repaired or discarded.

2. Chain saws shall not be operated unless the manufacturer's safety devices are in proper working order. Chain-saw safety devices shall not be removed or modified.

3. When an arborist or other worker is working in a tree other than from an aerial device, chain saws weighing more than 15 pounds (6.8 kg) service weight shall be made safe against falling (i.e., supported by a separate line or tool lanyard).

4. Secure footing shall be maintained when starting the chain saw.

5. When starting a chain saw, the operator shall hold the saw firmly in place on the ground or otherwise support the saw in a manner that minimizes movement of the saw when pulling the starter handle. The chain saw shall be started with the chain brake engaged, on saws so equipped. Drop-starting a chain saw is prohibited.

6. Chain-saw engines shall be started and operated only when other arborists and workers are clear of the swing radius of the chain saw.

7. When operating a chain saw, the arborist or other worker shall hold the saw firmly with both hands, keeping the thumb and fingers wrapped around the handle.

8. Arborists shall use a second point of attachment (for example, lanyard or doublecrotched climbing line) when operating a chain saw in a tree, unless the employer demonstrates that a greater hazard is posed by using a second point of attachment while operating a chain saw in that particular situation. Using both ends of a two-in-one lanyard shall not be considered two points of attachment when using a chain saw.

9. Chain-saw mufflers and spark arresters (if the latter are provided) shall be maintained in good condition.

10. The chain brake shall be engaged, or the engine shut off, before setting a chain saw down.

11. When a chain saw is being carried more than two steps, the chain brake shall be engaged or the engine shut off. The chain saw shall be carried in a manner that will prevent operator contact with the cutting chain and the muffler.

12. The chain-saw operator shall be certain of footing before starting to cut. The chain saw shall not be used in a position or at a distance that could cause the operator to become off-balance, have insecure footing, or relinquish a firm grip on the saw.

D. Powered pole tools and backpack power units.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged powered pole tools and backpack power units shall be removed from service and tagged until repaired or discarded.

2. Only workers operating the equipment shall be within 10 feet (3.05 m) of the cutting head of a brush saw during operations.

3. Power units shall be equipped with a readily accessible, quick shutoff switch.

4. Operators shall observe the position of all other workers in the vicinity while the equipment is running.

5. Engines shall be stopped for all cleaning, refueling, adjustments, and repairs to the saw or engine, except where manufacturers' procedures require otherwise.

6. Powered pole tools with poles made of metal or other conductive material shall not be used in operations where electrical hazards exist.

16VAC25-73-80. Hand tools and ladders.

A. General.

1. Correct hand tools and equipment shall be selected for the job.

2. Hand tools and equipment that have been made unsafe by damage or defect, including tools with loose or cracked heads or cracked, splintered, or weakened handles, shall be removed from service and tagged until repaired or discarded.

3. Workers shall maintain a safe working distance from other workers when using hand tools and equipment.

4. When climbing into a tree, arborists shall not carry hand tools and equipment in their hands unless the tools are used to assist them in climbing. Tools other than ropes or throwlines shall not be thrown into a tree or between workers aloft.

5. Arborist climbing lines or handlines shall be used for raising and lowering hand tools and equipment. Arborists shall raise or lower hand tools and equipment in a manner such that the cutting edge will not contact the arborist climbing line or handline.

6. Hand tools and equipment shall be properly stored or placed in plain sight out of the immediate work area when not in use.

B. Cant hooks, cant dogs, peaveys, and tongs.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged cant hooks, cant dogs, peaveys and tongs shall be removed from service and tagged until repaired or discarded.

2. Cant hooks shall be firmly set before applying force.

3. Points of hooks shall be at least two inches (5 cm) long and kept sharp.

4. Arborists and other workers shall always stand uphill from rolling logs, and all workers shall be warned and in the clear before logs are moved.

C. Wedges, chisels, and gouges.

1. The items contained in subsection A of this section shall always be included in the review of this section.

2. Wedges, chisels, and gouges shall be inspected for cracks and flaws before use. Tools with damaged heads shall be removed from service and tagged until repaired or discarded.

3. Wedges and chisels shall be properly pointed and tempered.

4. Eye protection shall be used during impact operations.

5. Only wood, plastic, or soft-metal wedges shall be used while operating chain saws.

6. Wood-handled chisels shall be protected with a ferrule on the striking end.

7. Wood, rubber, or high-impact plastic mauls, sledges, or hammers shall be used when striking wood-handled chisels or gouges.

D. Chopping tools.

1. The items contained in subsection A of this section shall always be included in the review of this section. Damaged chopping tools shall be removed from service and tagged until repaired or discarded.

2. Chopping tools shall not be used while working aloft.

3. Chopping tools shall not be used as wedges or used to drive metal wedges.

4. Chopping tools shall be swung away from the feet, legs, and body, using the minimum force practical for function and control.

5. When swinging tools such as grub hoes, mattocks, and axes, a secure grip, firm footing, and clearance of workers and overhead hazards shall be maintained.

E. Ladders.

1. The items contained in subsection A of this section shall always be included in the review of this section.

2. Ladders made of metal or other conductive material shall not be used where electrical hazards exist. Only wooden ladders or nonconductive ladders made of synthetic material equal to or exceeding the strength of wooden ladders shall be used. Portable wooden ladders shall be used in accordance with 16VAC25-90-1910.25.

3. Metal ladders used where no electrical hazard exists shall be used in accordance with 16VAC25-90-1910.26.

4. All ladders shall be inspected before use and removed from service if found defective, and tagged until repaired or discarded.

5. Cleats, metal points, skid-resistant feet, lashing, or other effective means of securing the ladder shall be used.

6. Ladders shall not be used as bridges or inclined planes to load or handle logs or other material.

7. Ladders shall be supported while in storage to prevent sagging. Except when on mobile equipment, ladders shall be stored under suitable cover, protected from the weather, and kept in a dry location away from excessive heat.

8. The third, or hinged, leg of a tripod/orchard ladder shall be braced or fastened when on hard or slick surfaces.

9. All ladders shall be used in accordance to the manufacturers' specifications and limitations and shall not be altered in a way that contradicts those specifications and limitations.

Regulations

16VAC25-73-90. Work procedures.

A. Ropes and arborist climbing equipment.

1. A visual hazard assessment, including a root collar inspection, shall be performed prior to climbing, entering, or performing any work in a tree, and an ongoing hazard assessment shall be conducted as operations progress while the arborist is in the tree. If the hazard assessment reveals a serious hazard to the climber or ground personnel, work shall immediately stop and personnel shall be removed from the hazardous area until a work plan is developed to safely remove the hazard/tree. The following items, at a minimum [,] shall be inspected:

a. Trunk and root hazards including, but not limited to, cracks, cavities, wood decay/rot, cut roots, mushrooms;

b. Lower stem hazards including, but not limited to, loose bark, open cavities, cracks, mushrooms, conks, and depressions or swelling in the stem;

c. Limb hazards including, but not limited to, watersprouts, hangers, cankers, dead branches, lightning damage, and weak crotches; and

d. Storm damage hazards including, but not limited to, cracked stems and crotches, broken limbs supported by cables, points of pressure, and tension on limbs or small trees underneath larger fallen trees.

2. A second arborist or other worker trained in emergency procedures shall be within visual or voice communication during arboricultural operations above 12 feet (3.65 m) that are not subject to the requirements of 16VAC25-73-50 B 4.

3. Climbing lines used in a split-tail system and split-tails shall be terminated with an eye splice or a knot that interfaces appropriately with the connecting link that it is attached to. The termination knot selected shall remain secure under normal loading and unloading. When using a carabiner without a captive eye, the knot or eye splice shall cinch in place to prevent accidental opening and/or side-loading of the carabiner.

4. Arborists shall inspect climbing lines, worklines, lanyards, and other climbing equipment for damage, cuts, abrasion, and/or deterioration before each use and shall remove them from service if signs of excessive wear or damage are found. The items removed from service shall be tagged until repaired or discarded.

5. Arborist saddles and lanyards used for work positioning shall be identified by the manufacturer as suitable for tree climbing.

6. Arborist saddles and lanyards used for work positioning shall not be altered in a manner that would compromise the integrity of the equipment.

7. Hardware used in the manufacture of arborist saddles shall meet the hardware material, strength, and testing requirements outlined in ANSI 359.1.

8. Arborist climbing lines shall have a minimum diameter of 7/16 (11 mm) and be constructed from a synthetic fiber, with a minimum breaking strength of 5,400 pounds (24.02 kilonewtons (kN)) when new. Maximum working elongation shall not exceed 7.0% at a load of 540 pounds (2.402 kN). Arborist climbing lines shall be identified by the manufacturer as suitable for tree climbing.

9. [~~All components of a climbing system (e.g., ropes, pulleys, etc.) shall meet the manufacturer's design, specifications, and limitations. Components from different climbing systems shall not be combined without prior approval of the manufacturers.~~ The qualified arborist shall assure that each component of the climbing system is approved by the manufacturer for its intended use as well as its compatibility with other components of the climbing system.]

10. Prusik loops, split-tails, and work-positioning lanyards used in a climbing system shall meet the minimum strength standards for arborist climbing lines.

11. Snap hooks (rope snaps) used in climbing shall be self-closing and self-locking, with a minimum tensile strength of 5,000 pounds (22.24 kN).

12. Carabiners used in climbing shall be self-closing and self-locking, with a minimum tensile strength of 5,000 pounds (22.24 kN). Carabiners shall be designed to release the load by requiring at least two consecutive, deliberate actions to prepare the gate for opening.

13. Splicing shall be done in accordance with cordage manufacturers' specifications.

14. All load-bearing components of the climbing system shall meet the minimum standards for arborist climbing equipment.

15. Equipment used to secure an arborist in the tree or from an aerial lift shall not be used for anything other than its intended purpose. The arborist climbing line may be used to raise and lower tools.

16. Rope ends shall be finished in a manner to prevent raveling.

17. Ropes and climbing equipment shall be stored and transported in such a manner to prevent damage through contact with sharp tools, cutting edges, gas, oil, or chemicals.

18. Arborist climbing lines shall never be left in trees unattended.

19. Arborists shall have available a climbing line and at least one other means of being secured while working

aloft; for example, an arborist climbing line and a work-positioning lanyard.

20. The arborist shall be secured while ascending the tree. The arborist shall be tied in once the work begins and shall be tied in until the work is completed and he has returned to the ground. The arborist shall be secured when repositioning the climbing line.

21. While ascending a ladder to gain access to a tree, the arborist shall not work from or leave the ladder until he is tied in or otherwise secured.

22. A false crotch and/or false crotch redirect may be used at the discretion of the arborist in lieu of a natural crotch.

23. The tie-in position shall be such that the arborist will not be subjected to an uncontrolled pendulum swing in the event of a slip.

24. When a climber is working at heights greater than one-half the length of the arborist climbing line, a figure-8 knot shall be tied in the end of the arborist climbing line to prevent pulling the rope through the climbing hitch.

B. Pruning and trimming.

1. Voice communications among arborists aloft and among arborists and other workers on the ground shall be established before cutting and dropping limbs. The communication method shall be clearly understood and used by all workers during all operations. The command "stand clear" from aloft and the response "all clear," "Underneath," or "No" from the ground are terms that may be used for this purpose. Prearranged, two-way hand signals may also be used when verbal communication is not possible because of distance or surrounding noise levels. Arborists and other workers returning to the work area shall be acknowledged by arborists aloft.

2. Pole pruners and pole saws, when hung, shall be securely positioned to prevent dislodgment. Pole pruners or pole saws shall not be hung on electrical conductors or left in a tree unattended. Pole saws and pole pruners shall be hung so that sharp edges are away from the arborist and shall be removed when the arborist leaves the tree.

3. Scabbards or sheaths shall be used to carry handsaws when not in use. Folding saws, when not in use, shall be closed and hooked to the arborist saddle.

4. Pole tools used in line-clearance operations shall be constructed with fiberglass reinforced plastic (FRP) or wooden poles meeting the requirements of 16VAC25-90-1910.269.

5. A separate workline shall be attached to limbs that cannot be dropped safely or controlled by hand. Arborist climbing lines and worklines shall not be secured to the same crotch.

6. Dry conditions and dead palm fronds present an extreme fire hazard. When dry conditions exist, arborists and other workers shall not smoke while working in or near dead palm fronds. All chain saws used under such conditions shall have mufflers and spark arresters in good working condition.

7. Palm frond skirts that have three years or more of growth shall be removed from the top down. Arborists performing this work shall be supported by an arborist climbing line and a false crotch. Arborists shall never attempt to remove skirts of three years or more by positioning themselves below work areas while being supported by a lanyard.

8. Cut branches shall not be left in trees upon completion of work.

C. Cabling.

1. Arborists and other workers on the ground shall not stand under the work area of a tree when a cabling system is being installed.

2. Tools used for cabling, bark tracing, and cavity work shall be carried in a bag, on a belt designed to hold such tools, or attached to a tool lanyard.

3. Arborists installing cabling systems in trees shall be positioned off to one side in order to avoid injury in case of cable system failure that could occur when a block and tackle or a hand winch is released.

4. When removing a cable from a tree, a block and tackle or come-along system shall be installed before removing the existing cable.

5. When installing a replacement cable, the replacement cable shall be fully installed before removing the outdated cable.

D. Rigging.

1. Arborists performing rigging operations shall inspect trees for their integrity to determine whether the trees have any visible defect that could affect the operation. If it is determined that the tree poses a risk of failure due to the forces and strains that will be created by the design of the rigging operation, an alternate plan shall be used that does not expose workers to the hazards of a failure.

2. The number of connecting links used for connecting components of a rigging system shall be minimized when possible. Connecting links shall interface properly and be in compliance with manufacturers' specifications and limitations (reference 16VAC26-60-120).

3. The qualified arborist shall ensure that load ratings shown on the rigging equipment or provided by the manufacturer for all ropes, connecting links, and rigging equipment are observed in all rigging operations. Rigging

Regulations

equipment shall be chosen for the specific task based on working-load limits and design specifications.

4. All equipment used for rigging operations shall be in good working condition. Equipment that has been damaged or overloaded shall be removed from service. Items removed from service shall be tagged until repaired or discarded.

5. To avoid confusion between rigging equipment and climbing equipment, the equipment shall be clearly marked to indicate their different purposes.

6. Rigging points shall be assessed for their structural integrity by a qualified arborist. The rigging plan and the tree shall be considered relative to the forces being applied to any part of the tree, including branch attachments and anchoring roots, before a rigging point is chosen and established.

7. Climbers shall choose tie-in points that will provide proper protection while allowing for a separation between the rigging system and the climbing system. Running rigging lines shall not be allowed to come into contact with any part of the climbing system.

8. Arborists performing rigging operations shall be educated to understand and trained to estimate the potential forces at any point in the rigging system being used. The system components shall comply with working-load limits relative to the operation and the maximum potential forces.

9. Careful consideration shall be given to the potential forces resulting from the specific influences of rope angles as well as the number of lines and/or line parts that will act on any rigging point.

10. Prior to the start of removal/rigging operations, a communication system shall be established in accordance with the requirements in subdivision B 1 of this section.

11. A work zone shall be established prior to the start of rigging operations. Workers not directly involved in the rigging operation shall stay out of the pre-established work zone until it has been communicated by a qualified arborist or qualified arborist trainee directly involved in the rigging operation that it is safe to enter the work zone. Workers shall be positioned and their duties organized so that the actions of one worker will not create a hazard for any other worker.

12. Only qualified arborists or qualified arborist trainees directly involved in the operation shall be permitted in the work zone when a load is being suspended by the rigging system. All workers shall be kept clear of suspended loads.

13. Taglines or other means may be used to help control and handle suspended loads.

14. Arborists working aloft shall position themselves so as to be above or to the side of the piece being rigged and out

of the path of movement of the piece when it has been cut. Climbers and their climbing systems shall be positioned outside of the rigging system itself when a cut is being made or a load is being moved or lowered. Climbers shall have an escape plan prepared.

15. The spars, limbs, or leaders being worked on and the spars being used for tie-in and/or rigging points shall be assessed for structural integrity and potential reaction forces that could cause a spar to split when it is cut.

16. Steps shall be taken to prevent spars from splitting or tearing during the rigging operation, and climbers shall take steps to avoid trapping, pinning, or entangling themselves in the system should the tree split or the rigging fail. Load binders are one possible means of preventing splitting.

E. Tree removal.

1. Before beginning any tree removal operation, the chain-saw operator and/or crew leader shall carefully consider all relevant factors pertaining to the tree and site and shall take appropriate actions to ensure a safe removal operation. The following factors shall be considered:

a. The area surrounding the tree to be removed, including nearby trees;

b. Species and shape of the tree;

c. Lean of the tree;

d. Loose limbs, chunks, or other overhead material;

e. Wind force and direction;

f. Decayed or weak spots throughout the tree (be aware of additional hazards if these conditions exist in the hinge area);

g. Location and means to protect other persons, property, and electrical conductors;

h. Size and terrain characteristics or limitations of the work area; and

i. Evidence of bees or wildlife habitation in the tree.

2. Work plans for removal operations shall be communicated to all workers in a job briefing before commencing work.

3. Workers not directly involved in the removal operation shall be clear of the work area, beyond the length of the tree, unless a team of workers is necessary to remove a particular tree.

4. A planned escape route for all workers shall be prepared before cutting any standing tree or trunk. The preferred escape route is 45 degrees on either side of a line drawn opposite the intended direction of the fall. Obstructions shall be cleared along the escape path. The chain-saw

operator shall use this path for egress once the cut has been completed.

5. When it is necessary to shorten or remove branches before removing the tree, the arborist shall determine whether the tree can withstand the strain of the lowering procedures. If not, other means of removing the tree shall be considered and used.

6. The crew leader shall determine the number of workers necessary for tree removal operations.

7. The crew leader shall develop a work plan so that operations do not conflict with each other, thereby creating a hazard.

8. Climbing spurs shall have gaffs of a type and length compatible for the tree being climbed.

9. Wedges, block and tackle, rope, wire cable (except where an electrical hazard exists), or other appropriate devices shall be used when there is a danger that the tree or trees being removed may fall in the wrong direction or damage property. All limbs shall be removed to a height and width sufficient to allow the tree to fall clear of any wires and other objects in the vicinity.

10. Tackle blocks and pulleys and their connecting links shall be inspected immediately before use and removed from service if they are found to be defective.

11. Workers returning to the work area shall not enter until the chain-saw operator has acknowledged that it is safe to do so.

12. When a pull line is being used, workers involved in removing a tree or trunk shall be clear by a minimum of one tree length.

13. All workers other than the individual engaged in manual land-clearing operations shall be at least two tree lengths away from the tree or trunk being removed. This requirement does not apply in the presence of site restrictions, such as waterways or cliffs. Other arborists and workers shall be beyond the trees' striking range and at a distance as close to twice the tree's height as possible.

NOTE: This regulation does not apply to tree removal activities where the primary objective is land clearing in preparation for construction, real estate development, or other related activities, unless directly supervised by a certified arborist. Such activities are covered by 16VAC25-90-1910.266.

14. Notches shall be used on all trees and trunks greater than five inches (12.7 cm) in diameter at breast height.

15. Notches and back cuts shall be made at a height that enables the chain-saw operator to safely begin the cut, control the tree or trunk, and have freedom of movement for escape:

a. The notch cut used shall be a conventional notch, an open-face notch, or a Humboldt notch.

b. Notches shall be 45 degrees or greater and large enough to guide the fall of the tree or trunk to prevent splitting.

c. Notch depth shall not exceed one-third the diameter of the tree.

d. The back cut shall not penetrate into the predetermined hinge area.

16. With a conventional notch or Humboldt notch, the back cut shall be one to two inches (2.5 to 5 cm) above the apex of the notch to provide an adequate platform to prevent kickback of the tree or trunk. With an open-face notch (greater than 70 degrees), the back cut shall be at the same level as the apex of the notch.

17. The two cuts that form the notch shall not cross at the point where they meet.

18. Before making the back cut, there shall be a command such as "stand clear" from the arborist operating the chain saw and a response such as "all clear" from the workers supporting the removal operation. Pre-arranged, two-way hand signals may also be used in accordance with subdivision B 1 of this section. Only designated persons shall give such signals. All workers in the vicinity shall be out of range when the tree or trunk falls. Visual contact shall be maintained with the tree or trunk until it is on the ground.

19. When the back cut has been completed, the chain-saw operator shall immediately move a safe distance away from the tree or trunk using the planned escape route.

20. Workers shall not approach mechanical tree removal or mechanical re-clearing operations, such as with a rotary or flail mower, until the operator has acknowledged that it is safe to do so.

F. Brush removal and chipping.

1. Traffic control around the jobsite shall be established prior to the start of chipping operations along roads and highways (see 16VAC25-73-40 B).

2. Brush and logs shall not be allowed to create hazards in the work areas.

3. To prevent an entanglement hazard, loose clothing, climbing equipment, body belts, harnesses, lanyards, or gauntlet-type gloves (for example, long-cuffed lineman's or welder's gloves) shall not be worn while operating chippers.

4. Personal protective equipment shall be worn when in the immediate area of chipping operations in accordance with 16VAC25-73-40 D.

Regulations

5. Training shall be provided in the proper operation, feeding, starting, and shutdown procedures for the chipper being used.

6. Maintenance shall be performed only by those persons authorized by the employer and trained to perform such operations.

7. Brush and logs shall be fed into chippers, butt or cut end first, from the side of the feed table center line, and the operator shall immediately turn away from the feed table when the brush is taken into the rotor or feed rollers. Chippers shall be fed in accordance with the manufacturer's instructions.

8. The brush chipper discharge chute or cutter housing cover shall not be raised or removed while any part of the chipper is turning or moving. Chippers shall not be used unless a discharge chute of sufficient length or design is provided that prevents personal contact with the blades (see 16VAC25-73-110, Appendix B, General Safety Procedures that Apply to All Tree Work).

9. Foreign material, such as stones, nails, sweepings, and rakings, shall not be fed into chippers.

10. Small branches shall be fed into chippers with longer branches or by being pushed with a long stick.

11. Hands or other parts of the body shall not be placed into the infeed hopper. Leaning into or pushing material into infeed hoppers with feet is prohibited.

12. While material is being fed into the chipper infeed hopper chute, pinch points continually develop within the material being chipped and between the material and machine. The operator shall be aware of this situation and respond accordingly.

13. When feeding a chipper during roadside operations, the operator shall do so in a manner that prevents him from stepping into traffic or being pushed into traffic by the material that is being fed into the chipper.

14. When using a winch in chipper operations, the operator shall ensure that the winch cable is properly stored before initiating chipper operations.

15. Refer to 16VAC25-73-60 C, for additional information.

G. Limbing and bucking.

1. Work plans for limbing and bucking operations shall be communicated to all workers in a job briefing before work begins.

2. When more than one worker is limbing or bucking a tree, each shall be positioned and their duties organized so that the actions of one worker will not create a hazard for any other worker.

3. Chain saws shall be operated away from the vicinity of the legs and feet. Natural barriers, such as limbs between the saw and the body, shall be employed where possible, while ensuring proper balance. While operating a chain saw, the preferred working position is on the uphill side of the work.

4. The worker shall make sure of firm footing before and during limbing and bucking. The worker shall not stand on loose chunks or logs that will roll when the log being bucked is sawed off.

5. Trees, limbs, or saplings under tension shall be considered hazardous. Appropriate cutting techniques and precautions shall be followed.

6. Wedges shall be used as necessary to prevent binding of the guide bar or chain when bucking trunks of trees.

7. Cant hooks or peaveys shall be used as an aid in rolling large or irregular logs to complete bucking.

8. If mechanized equipment is to be used, the equipment operator shall establish an effective means of communication with other workers (see subdivisions B 1 and D 10 of this section).

9. Workers shall not approach mechanized equipment operations until the equipment operator has acknowledged that it is safe to do so.

H. Pesticide application.

1. The applicator shall follow label instructions in regard to pesticide applications.

2. The applicator shall follow pesticide label instructions in regard to laundering his clothing.

3. The applicator shall comply with the manufacturer's instructions with regard to showering or bathing at the end of each workday.

4. The employer shall provide a clean water source at the worksite, which can be used for emergency personal decontamination. Precautions shall be taken to prevent contamination of the clean water source. Drinking water and decontamination water shall be kept in separate containers.

5. The applicator shall not direct a solid spray column into contact with electrical conductors.

16VAC25-73-100. Appendix A (Informative): Recommended Guidelines for Standard Performance and Safety Training for Qualified Line-Clearance Arborists/Qualified Line-Clearance Arborist Trainees and Qualified Arborists/Qualified Arborist Trainees.

NOTE: The content of this training outline is generic and may be customized to achieve equivalent levels of safe practice by substituting or, where deemed appropriate to the

circumstances, omitting portions of this outline. Use or nonuse of training aids that may be available shall not be evidence of noncompliance with this regulation.

A. General requirements. Specific training in the area of individual expertise and work required of a qualified line-clearance arborist or qualified arborist shall be provided by the employer and documentation of training retained on file for the duration of employment.

1. Introduction and employer/employee responsibilities.

2. Employee orientation, to include:

a. Job description appropriate to job assignment (qualified line-clearance arborist or qualified arborist).

b. Introduction to immediate supervisor and crew members.

c. Familiarization with appropriate personal protective clothing and equipment and its proper use and maintenance.

d. Familiarization with equipment.

e. Introduction to company policies, procedures, and safe work practices.

f. Safe work practices as related to job assignments.

g. Written acknowledgment by employee that he has participated in such training.

3. Line-clearance or tree care pruning techniques appropriate to job assignments, as follows:

a. Provide education and training in accordance with prevailing national standards for utility pruning. Refer to recommended resources in 16VAC25-73-120 (Appendix C) for further information.

b. Provide education and training in accordance with prevailing local, state, or regional standards for utility pruning, as well as those specified by utility contracts.

c. Provide tree knowledge for line-clearance or tree care techniques appropriate to job assignments.

d. Provide education and training relative to predominant tree species within geographic area, such as identification, growth habits, structure, and wood strength.

e. Provide education and training for recognition and evaluation of potentially hazardous conditions related to tree structure. Refer to recommended resources in 16VAC25-73-120 (Appendix C).

B. General safety.

1. VOSH regulations. Familiarize employees with the requirements of VOSH regulations as applicable to

employee job assignments. Refer to recommended resources in 16VAC25-73-120 (Appendix C).

2. American national standards. Familiarize employees with the requirements in ANSI A300 as applicable to employee job assignments. Refer to additional recommended standards in 16VAC25-73-120 (Appendix C).

3. Public safety and traffic control. Provide education and training in the use of public safety and traffic control devices as applicable under federal, state, or local regulations.

4. Electrical hazards. Provide education and training in the recognition and avoidance of electrical hazards applicable to employee job assignments (line clearance or tree care).

5. Emergency conditions. Provide education and training in the proper procedures for safely performing work in emergency conditions applicable to employee job assignments.

6. Jobsite briefings. Provide education and training in jobsite-specific hazards associated with the job, work procedures, and practices involved. Instruct employees about special precautions, personal protective clothing, and equipment requirements as applicable to employee job assignments.

C. Personal safety.

1. Personal protective equipment. Provide personal protective equipment as required for applicable job assignments, and instruct employees in its proper use, fit, life, and maintenance.

2. Emergency response procedures. Furnish employees with appropriate information and training necessary to expedite a response to a worksite emergency, such as first aid, CPR, and aerial rescue (see 16VAC25-73-150, Appendix E, Aerial Rescue Flowchart).

3. Prevention of back and other injuries. Provide education and training in the techniques required to avoid back and other injuries applicable to job assignments.

4. Identification and avoidance of animals and poison plants. Provide education and training in the identification of and the need to avoid contact with poison plants and instructions for treating insect stings/bites and snake bites.

D. Equipment safety.

1. Mobile equipment and aerial lifts. Provide education and training in the inspection, operation, and maintenance of all vehicles and equipment, such as aerial lifts, brush chippers, stump grinders, log loaders, tree cranes, mowing equipment, and pesticide application equipment. All equipment shall comply with applicable federal and state regulations, local ordinances, and manufacturers' operating

Regulations

instructions (see 16VAC25-60-120). Such training shall be appropriate to employee job assignments.

2. Aerial equipment and electrical hazards. Provide education and training so that affected employees understand the required and recommended procedures for operating aerial devices in proximity to electrical hazards. Such training shall be appropriate to employee job assignments.

3. Chain saw, power tool, and hand tool use and safety. Provide education and training in the safe use of chain saws, power tools, and hand tools in accordance with manufacturers' instructions. Such training shall be appropriate to employee job assignments.

4. Climbing equipment use and safety. Provide education and training in the inspection, maintenance, and storage of climbing equipment such as ropes, saddles, personal lanyards, rope snaps, carabiners, and related equipment. Such training shall be appropriate to employee job assignments.

E. Operational safety.

1. Climbing techniques. Provide education and training in climbing techniques as appropriate to employee job assignments.

2. Rigging and tree removal:

a. Provide education and training appropriate to employee job assignments, such as knots and ropes, rigging techniques, tree strength and weight characteristics, and potential electrical hazards.

b. Provide education and training in the identification and removal of hazard trees. Such training shall be appropriate to employee job assignments.

3. Hazard communications. Provide education and training necessary to comply with federal and state regulations appropriate to employee job assignments.

4. Pesticide use. Provide education and training necessary to comply with federal and state regulations appropriate to employee job assignments.

16VAC25-73-110. Appendix B (Informative): General Safety Procedures that Apply to All Tree Work.

A. Lifting. Before lifting any weight, workers shall:

1. Be sure there is a clear path available if the weight is to be carried from one place to another;

2. Decide exactly how the object should be grasped to avoid sharp edges, splinters, splinters, or other factors that might cause injury;

3. Make a preliminary lift to be sure the load can be safely handled;

4. Place feet solidly on the walking surface;

5. Crouch as close to the load as possible, with legs bent at an angle of about 90 degrees;

6. Lift with the legs, not the back, keeping the weight as close to the body as possible; and

7. Use additional workers or material-handling equipment when necessary.

B. Control of hazardous energy. When a worker, hereafter referred to as the "authorized person," is doing mechanical work, precautions must be taken to prevent injury caused by moving or elevated parts, or the release of stored energy, such as hydraulic pressure. Failure to do so could result in a serious, potentially maiming, or fatal injury. The authorized person performing maintenance/repair shall comply with the employer's procedures. The specific Control of Hazardous Energy requirements established by VOSH may be obtained by consulting 16VAC25-90-1910.147.

1. The following is a sample procedure.

Sequence for Securing Equipment (Sample):

a. The authorized person shall notify the crew and/or affected employees that maintenance or repair is to be done and that such equipment must be shut down and secured.

b. The authorized person shall refer to the manufacturer's manual for proper procedures (as needed).

c. If equipment is in an operational mode, it shall be shut down by normal procedures.

d. Rotating parts, such as chipper blades, shall be stopped before maintenance or repair. Keyed ignition systems must be in working order.

e. Keys shall be removed and pocketed by the foreman or mechanic. When there is no keyed ignition system, the battery cables or spark plug wires shall be disconnected.

f. The power takeoff shall be disengaged before beginning service or repair tasks, such as hose replacement. All hydraulic tools shall be disconnected before equipment is adjusted or serviced.

g. An employee shall never attempt to stop a hydraulic leak with his body.

h. Materials or parts that must be raised or disconnected and suspended shall be properly secured, such as with an appropriate sling or jackstand. Flywheels, such as chipper cutter heads, are to be blocked to prevent pinch points.

i. Before proceeding with maintenance or repair, the authorized person shall ensure that equipment is isolated and will not operate.

j. Any piece of equipment being serviced or repaired shall not be started, energized, or used by any other worker not under the direction of the authorized person.

k. When the engine must be running for tuning or adjustment, special care must be given to moving parts.

2. Restoring equipment to service (sample). When maintenance or repair is complete and equipment is ready to return to normal operation, the following steps shall be taken by the authorized person to restore the equipment to service:

a. To prevent accidental contact with moving or electrical components when the equipment is engaged, check for loose parts or tools that may have been left in the immediate area.

b. Ensure that all guards are in place and employees are in the clear.

c. Confirm that controls are in neutral.

d. Reconnect key, cable, or plug wires.

e. Notify affected employees that equipment is ready to return to service.

16VAC25-73-120. Appendix C (Informative): Additional Resources.

A. Applicable American National Standards:

Fall protection systems for construction and demolition operations (A10.32-2004)

Personal fall arrest systems, subsystems, and components (Z359.1-1992 [R1999])

Protective headgear for industrial workers (Z89.1-2003)

Tree care operations—tree, shrub, and other woody plant maintenance (A300, Parts 1 through 7)

Vehicle-mounted elevating and rotating aerial devices (A92.2-2001)

B. Cordage Institute Rope Standards

The Cordage Institute, www.ropecord.com

C. Applicable VOSH and U.S. Department of Labor/Federal Labor/Federal Motor Carrier Safety Administration Regulations

Electric Power Generation, Transmission, and Distribution, 16VAC25-90-1910.269

General Industry, 16VAC25-90-1910

Hazard Communication, 16VAC25-90-1910.1200

[~~Medical Services and First Aid, 16VAC25-95~~ ~~[PROPOSED REGULATION]~~]

Occupational Noise Exposure, 16VAC25-90-1910.95

Personal Protective Equipment, 16VAC25-90-1910.132 to 16VAC25-90-1910.136

Electrical - Safety-Related Work Practices, 16VAC25-90-1910.331 to 16VAC25-90-1910.335

Telecommunication, 16VAC25-90-1910.268

Transportation (49 CFR, Subchapter B, Federal Motor Carrier Safety Regulations)

16VAC25-73-130. Appendix D (Informative): Weight of Green Logs.

Species	Weight, lb per ft	<u>Weight of 1-ft section, based on average diameter</u>							
		<u>10"</u>	<u>12"</u>	<u>14"</u>	<u>16"</u>	<u>18"</u>	<u>20"</u>	<u>22"</u>	<u>24"</u>
<u>Alder, red</u>	<u>46</u>	<u>25</u>	<u>36</u>	<u>49</u>	<u>64</u>	<u>81</u>	<u>100</u>	<u>121</u>	<u>144</u>
<u>Ash, green</u>	<u>47</u>	<u>25</u>	<u>37</u>	<u>50</u>	<u>66</u>	<u>83</u>	<u>102</u>	<u>124</u>	<u>148</u>
<u>Ash, Oregon</u>	<u>48</u>	<u>26</u>	<u>38</u>	<u>51</u>	<u>67</u>	<u>85</u>	<u>104</u>	<u>126</u>	<u>150</u>
<u>Ash, white</u>	<u>48</u>	<u>26</u>	<u>38</u>	<u>51</u>	<u>67</u>	<u>85</u>	<u>104</u>	<u>126</u>	<u>150</u>
<u>Aspen, quaking</u>	<u>43</u>	<u>23</u>	<u>34</u>	<u>46</u>	<u>60</u>	<u>76</u>	<u>94</u>	<u>114</u>	<u>135</u>
<u>Baldcypress</u>	<u>51</u>	<u>28</u>	<u>40</u>	<u>54</u>	<u>71</u>	<u>90</u>	<u>111</u>	<u>135</u>	<u>160</u>
<u>Basswood</u>	<u>42</u>	<u>23</u>	<u>33</u>	<u>45</u>	<u>59</u>	<u>74</u>	<u>92</u>	<u>111</u>	<u>132</u>
<u>Beech</u>	<u>54</u>	<u>29</u>	<u>42</u>	<u>58</u>	<u>75</u>	<u>95</u>	<u>118</u>	<u>142</u>	<u>169</u>
<u>Birch, paper</u>	<u>50</u>	<u>27</u>	<u>39</u>	<u>53</u>	<u>70</u>	<u>88</u>	<u>109</u>	<u>132</u>	<u>157</u>

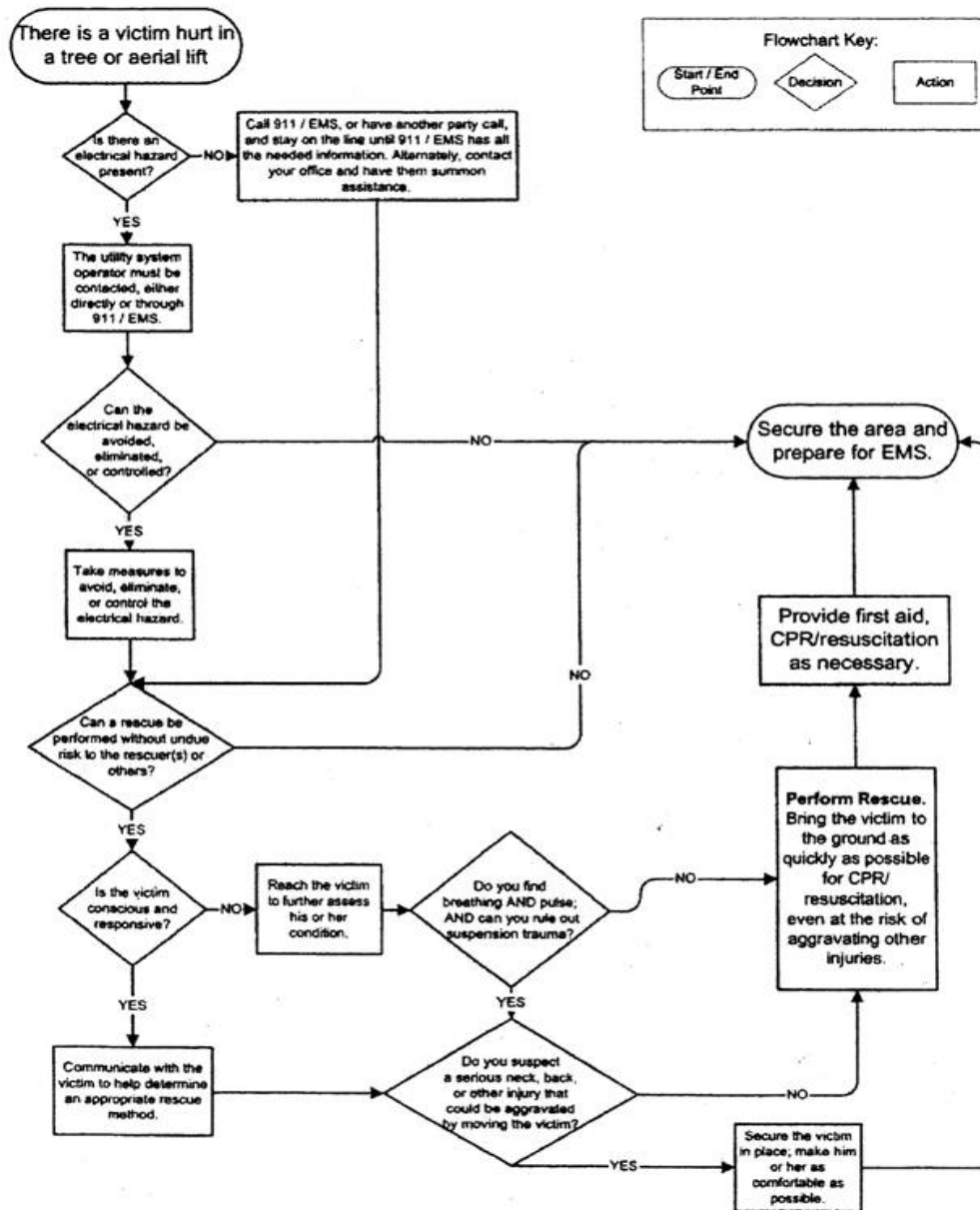
Regulations

<u>Cedar, incense</u>	<u>45</u>	<u>25</u>	<u>35</u>	<u>48</u>	<u>63</u>	<u>79</u>	<u>98</u>	<u>119</u>	<u>141</u>
<u>Cedar, western red</u>	<u>28</u>	<u>15</u>	<u>22</u>	<u>30</u>	<u>39</u>	<u>49</u>	<u>61</u>	<u>74</u>	<u>88</u>
<u>Cherry, black</u>	<u>45</u>	<u>25</u>	<u>35</u>	<u>48</u>	<u>63</u>	<u>79</u>	<u>98</u>	<u>119</u>	<u>141</u>
<u>Chinaberry</u>	<u>50</u>	<u>27</u>	<u>39</u>	<u>53</u>	<u>70</u>	<u>88</u>	<u>109</u>	<u>132</u>	<u>157</u>
<u>Cottonwood</u>	<u>49</u>	<u>27</u>	<u>38</u>	<u>52</u>	<u>68</u>	<u>86</u>	<u>107</u>	<u>129</u>	<u>154</u>
<u>Elm, American</u>	<u>54</u>	<u>29</u>	<u>42</u>	<u>58</u>	<u>75</u>	<u>95</u>	<u>118</u>	<u>142</u>	<u>169</u>
<u>Fir, Douglas</u>	<u>39</u>	<u>21</u>	<u>30</u>	<u>41</u>	<u>55</u>	<u>69</u>	<u>85</u>	<u>103</u>	<u>122</u>
<u>Fir, noble</u>	<u>29</u>	<u>16</u>	<u>23</u>	<u>31</u>	<u>41</u>	<u>51</u>	<u>63</u>	<u>77</u>	<u>91</u>
<u>Fir, white</u>	<u>47</u>	<u>25</u>	<u>37</u>	<u>50</u>	<u>66</u>	<u>83</u>	<u>102</u>	<u>124</u>	<u>148</u>
<u>Gum, black</u>	<u>45</u>	<u>25</u>	<u>35</u>	<u>48</u>	<u>63</u>	<u>79</u>	<u>98</u>	<u>119</u>	<u>141</u>
<u>Gum, red (Eucalyptus)</u>	<u>50</u>	<u>27</u>	<u>39</u>	<u>53</u>	<u>70</u>	<u>88</u>	<u>109</u>	<u>132</u>	<u>157</u>
<u>Hackberry</u>	<u>50</u>	<u>27</u>	<u>39</u>	<u>53</u>	<u>70</u>	<u>88</u>	<u>109</u>	<u>132</u>	<u>157</u>
<u>Hemlock, eastern</u>	<u>49</u>	<u>27</u>	<u>38</u>	<u>52</u>	<u>68</u>	<u>86</u>	<u>107</u>	<u>129</u>	<u>154</u>
<u>Hemlock, western</u>	<u>41</u>	<u>22</u>	<u>32</u>	<u>43</u>	<u>57</u>	<u>72</u>	<u>89</u>	<u>108</u>	<u>129</u>
<u>Hickory, shagbark</u>	<u>64</u>	<u>35</u>	<u>50</u>	<u>68</u>	<u>89</u>	<u>113</u>	<u>140</u>	<u>169</u>	<u>201</u>
<u>Horsechestnut</u>	<u>41</u>	<u>22</u>	<u>32</u>	<u>43</u>	<u>57</u>	<u>72</u>	<u>89</u>	<u>108</u>	<u>129</u>
<u>Larch</u>	<u>51</u>	<u>28</u>	<u>40</u>	<u>54</u>	<u>71</u>	<u>90</u>	<u>111</u>	<u>135</u>	<u>160</u>
<u>Locust, black</u>	<u>58</u>	<u>32</u>	<u>45</u>	<u>62</u>	<u>81</u>	<u>102</u>	<u>126</u>	<u>153</u>	<u>182</u>
<u>Locust, honey</u>	<u>61</u>	<u>33</u>	<u>48</u>	<u>65</u>	<u>85</u>	<u>108</u>	<u>133</u>	<u>161</u>	<u>192</u>
<u>Maple, red</u>	<u>50</u>	<u>27</u>	<u>39</u>	<u>53</u>	<u>70</u>	<u>88</u>	<u>109</u>	<u>132</u>	<u>157</u>
<u>Maple, silver</u>	<u>45</u>	<u>25</u>	<u>35</u>	<u>48</u>	<u>63</u>	<u>79</u>	<u>98</u>	<u>119</u>	<u>141</u>
<u>Maple, sugar</u>	<u>56</u>	<u>31</u>	<u>44</u>	<u>60</u>	<u>78</u>	<u>99</u>	<u>122</u>	<u>148</u>	<u>176</u>
<u>Oak, California black</u>	<u>66</u>	<u>36</u>	<u>51</u>	<u>70</u>	<u>92</u>	<u>116</u>	<u>144</u>	<u>174</u>	<u>207</u>
<u>Oak, English</u>	<u>52</u>	<u>28</u>	<u>41</u>	<u>55</u>	<u>72</u>	<u>92</u>	<u>113</u>	<u>137</u>	<u>163</u>
<u>Oak, live</u>	<u>76</u>	<u>41</u>	<u>60</u>	<u>81</u>	<u>106</u>	<u>134</u>	<u>166</u>	<u>200</u>	<u>238</u>
<u>Oak, pin</u>	<u>64</u>	<u>35</u>	<u>50</u>	<u>68</u>	<u>89</u>	<u>113</u>	<u>140</u>	<u>169</u>	<u>201</u>
<u>Oak, post</u>	<u>63</u>	<u>34</u>	<u>49</u>	<u>67</u>	<u>88</u>	<u>111</u>	<u>137</u>	<u>166</u>	<u>198</u>
<u>Oak, red</u>	<u>63</u>	<u>34</u>	<u>49</u>	<u>67</u>	<u>88</u>	<u>111</u>	<u>137</u>	<u>166</u>	<u>198</u>
<u>Oak, scarlet</u>	<u>64</u>	<u>35</u>	<u>50</u>	<u>68</u>	<u>89</u>	<u>113</u>	<u>140</u>	<u>169</u>	<u>201</u>
<u>Oak, white</u>	<u>62</u>	<u>34</u>	<u>48</u>	<u>66</u>	<u>86</u>	<u>109</u>	<u>135</u>	<u>163</u>	<u>194</u>
<u>Pecan</u>	<u>61</u>	<u>33</u>	<u>48</u>	<u>65</u>	<u>85</u>	<u>108</u>	<u>133</u>	<u>161</u>	<u>192</u>
<u>Persimmon</u>	<u>63</u>	<u>34</u>	<u>49</u>	<u>67</u>	<u>88</u>	<u>111</u>	<u>137</u>	<u>166</u>	<u>198</u>
<u>Pine, eastern white</u>	<u>36</u>	<u>20</u>	<u>28</u>	<u>38</u>	<u>50</u>	<u>64</u>	<u>78</u>	<u>95</u>	<u>113</u>
<u>Pine, loblolly</u>	<u>53</u>	<u>29</u>	<u>41</u>	<u>56</u>	<u>74</u>	<u>93</u>	<u>116</u>	<u>140</u>	<u>166</u>






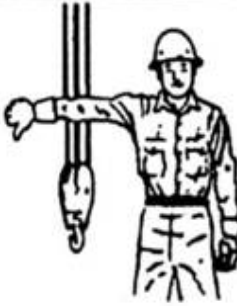
<u>Pine, lodgepole</u>	<u>39</u>	<u>21</u>	<u>30</u>	<u>41</u>	<u>55</u>	<u>69</u>	<u>85</u>	<u>103</u>	<u>122</u>
<u>Pine, longleaf</u>	<u>55</u>	<u>30</u>	<u>43</u>	<u>58</u>	<u>77</u>	<u>97</u>	<u>120</u>	<u>145</u>	<u>173</u>
<u>Pine, ponderosa</u>	<u>46</u>	<u>25</u>	<u>36</u>	<u>49</u>	<u>64</u>	<u>81</u>	<u>100</u>	<u>121</u>	<u>144</u>
<u>Pine, slash</u>	<u>58</u>	<u>32</u>	<u>45</u>	<u>62</u>	<u>81</u>	<u>102</u>	<u>126</u>	<u>153</u>	<u>182</u>
<u>Pine, sugar</u>	<u>52</u>	<u>28</u>	<u>41</u>	<u>55</u>	<u>72</u>	<u>92</u>	<u>113</u>	<u>137</u>	<u>163</u>
<u>Pine, western white</u>	<u>36</u>	<u>20</u>	<u>28</u>	<u>38</u>	<u>50</u>	<u>64</u>	<u>78</u>	<u>95</u>	<u>113</u>
<u>Poplar, yellow</u>	<u>38</u>	<u>21</u>	<u>30</u>	<u>40</u>	<u>53</u>	<u>67</u>	<u>83</u>	<u>99</u>	<u>119</u>
<u>Redwood, coast</u>	<u>50</u>	<u>27</u>	<u>39</u>	<u>53</u>	<u>70</u>	<u>88</u>	<u>109</u>	<u>132</u>	<u>157</u>
<u>Spruce, red</u>	<u>34</u>	<u>19</u>	<u>27</u>	<u>36</u>	<u>47</u>	<u>60</u>	<u>74</u>	<u>90</u>	<u>106</u>
<u>Spruce, Sitka</u>	<u>32</u>	<u>17</u>	<u>25</u>	<u>34</u>	<u>45</u>	<u>56</u>	<u>70</u>	<u>84</u>	<u>100</u>
<u>Sweetgum</u>	<u>55</u>	<u>30</u>	<u>43</u>	<u>58</u>	<u>77</u>	<u>97</u>	<u>120</u>	<u>145</u>	<u>173</u>
<u>Sycamore</u>	<u>52</u>	<u>28</u>	<u>41</u>	<u>55</u>	<u>72</u>	<u>92</u>	<u>113</u>	<u>137</u>	<u>163</u>
<u>Walnut, black</u>	<u>58</u>	<u>32</u>	<u>45</u>	<u>62</u>	<u>81</u>	<u>102</u>	<u>126</u>	<u>153</u>	<u>182</u>
<u>Willow</u>	<u>32</u>	<u>17</u>	<u>25</u>	<u>34</u>	<u>45</u>	<u>56</u>	<u>70</u>	<u>84</u>	<u>100</u>






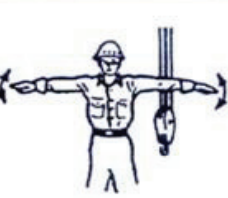



Regulations

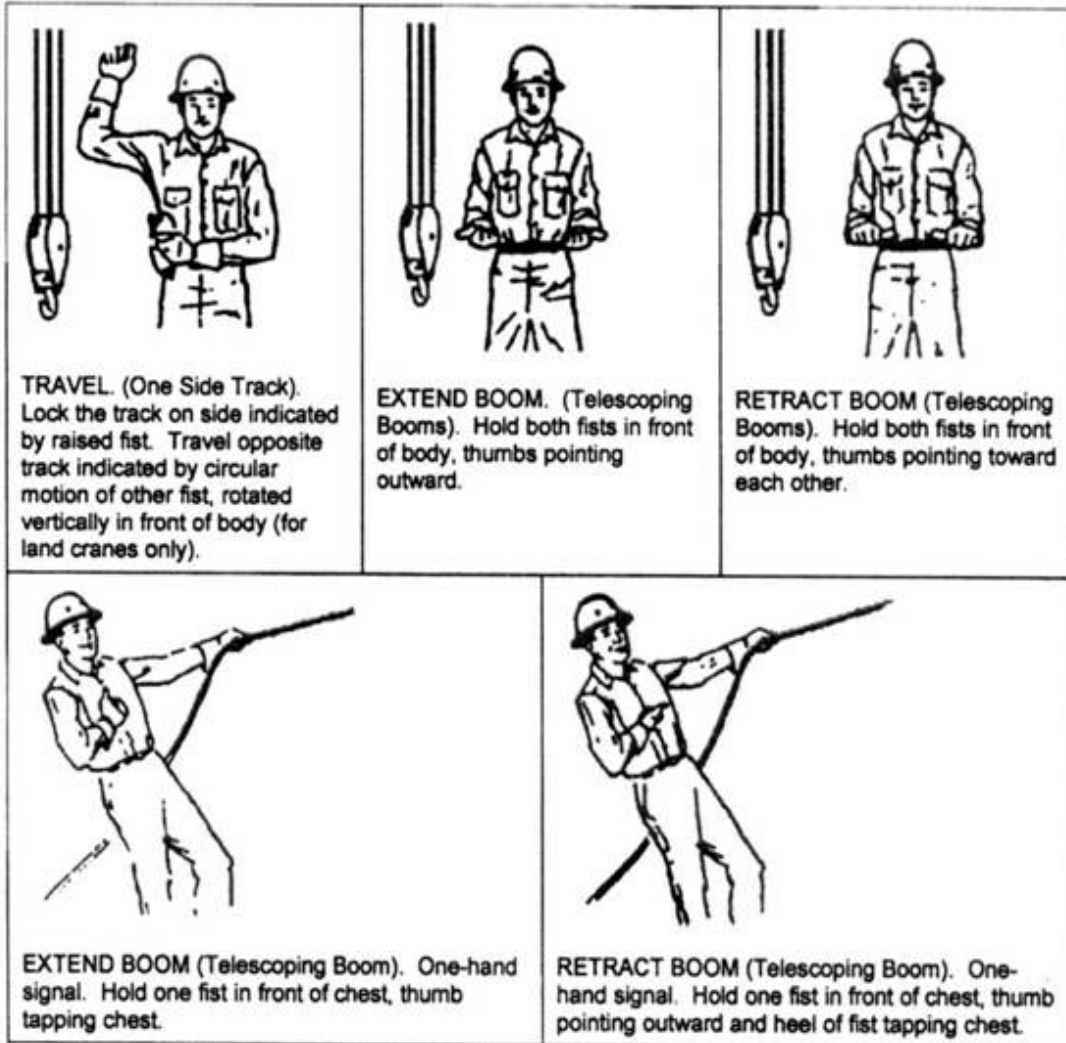
16VAC25-73-140. Appendix E (Informative): Aerial Rescue Flowchart.



16VAC25-73-150. Appendix F (Informative): Hand Signal Chart for Crane Operations.

 <p>HOIST. With forearm vertical, forefinger pointing up, move hand in small horizontal circles.</p>	 <p>LOWER. With arm extended downward, forefinger pointing down, move hand in small horizontal circles.</p>	 <p>USE MAIN HOIST. Tap fist on head, then use regular signals.</p>
 <p>USE WHIPLINE. (Auxiliary Hoist) Tap elbow with one hand, then use regular signals.</p>	 <p>RAISE BOOM. Extend arm, fingers closed, thumb pointing upward.</p>	 <p>LOWER BOOM. Extend arm, fingers closed, thumb pointing downward.</p>

 <p>MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless above the hand giving the motion signal. (Hoist slowly shown as example.)</p>	 <p>RAISE THE BOOM AND LOWER THE LOAD. With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired.</p>	 <p>LOWER THE BOOM AND RAISE THE LOAD. With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.</p>
 <p>SWING. Extend arm, point with finger in direction of swing of boom.</p>	 <p>STOP. Extend arm, palm down; move arm back and forth horizontally.</p>	 <p>EMERGENCY STOP. Both arms extended, palms down, move arms back and forth horizontally.</p>
 <p>TRAVEL. Extend arm forward, hand open and slightly raised; make pushing motion in direction of travel.</p>	 <p>DOG EVERYTHING. Clasp hands in front of body.</p>	 <p>TRAVEL (Both Tracks). Use both fists in front of body, making a circular motion about each other, indicating direction of travel, forward or backward (for land cranes only).</p>



Regulations

DOCUMENTS INCORPORATED BY REFERENCE
(16VAC25-73)

American National Standards Institute (ANSI), 11 West 42nd Street, New York, NY 10036:

ANSI/ASSE A10.32-2004, Fall Protection Systems for Construction and Demolition Operations.

ANSI Z359.1-1992 (R-1999), Personal Fall Arrest Systems, Subsystems, and Components.

ANSI Z89.1-2003, Protective Headgear for Industrial Workers.

ANSI A300, Tree Care Operations—Tree, Shrub, and Other Woody Plant Maintenance—Standard Practices:

Part 1-2001, Pruning, revised 2008.

Part 2-1998, Fertilization, revised 2004.

Part 3-2000, Supplemental Support Systems, revised 2006.

Part 4-2002, Lightning Protection Systems.

Part 5-2005, Management of Trees and Shrubs During Site Planning, Site Development, and Construction.

Part 6-2005, Transplanting.

Part 7-2006, Integrated Vegetation Management, Electric Utility Rights-of-Way.

ANSI/SIA A92.2-2001, Vehicle-Mounted Elevating and Rotating Aerial Devices.

Virginia Work Area Protection Manual, Standards and Guidelines for Temporary Traffic Control, Virginia Department of Transportation, May 2005.

VA.R. Doc. No. R08-1044; Filed March 2, 2011, 10:03 a.m.

Final Regulation

REGISTRAR'S NOTICE: The following regulatory action is exempt from the Administrative Process Act in accordance with § 2.2-4006 A 4 c of the Code of Virginia, which excludes regulations that are necessary to meet the requirements of federal law or regulations provided such regulations do not differ materially from those required by federal law or regulation. The Safety and Health Codes Board will receive, consider, and respond to petitions by any interested person at any time with respect to reconsideration or revision.

Title of Regulation: 16VAC25-175. Federal Identical Construction Industry Standards (amending 16VAC25-175-1926.31, 16VAC25-175-1926.450, 16VAC25-175-1926.500, 16VAC25-175-1926.550, 16VAC25-175-1926.553, 16VAC25-175-1926.600, 16VAC25-175-1926.753, 16VAC25-175-1926.800, 16VAC25-175-1926.856, 16VAC25-175-1926.858, 16VAC25-175-

1926.952, 16VAC25-175-1926.1050, Appendix A to Part 1926; adding 16VAC25-175-1926.6, Subpart AA, Subpart BB, 16VAC25-175-1926.1400 through 16VAC25-175-1442, Appendix A to Subpart CC of Part 1926, Appendix B to Subpart CC of Part 1926, Appendix C to Subpart CC of Part 1926, 16VAC25-175-1926.1500, 16VAC25-175-1926.1501.

Statutory Authority: § 40.1-22 of the Code of Virginia.

Effective Date: April 15, 2011.

Agency Contact: John J. Crisanti, Planning and Evaluation Manager, Department of Labor and Industry, Powers-Taylor Building, 13 South 13th Street, Richmond, VA 23219, telephone (804) 786-4300, FAX (804) 786-8418, TTY (804) 786-2376, or email john.crisanti@doli.virginia.gov.

Summary:

Federal OSHA has revised the Cranes and Derricks Standard and other related sections of the Construction Industry Standards to update and specify industry work practices necessary to protect employees during the use of cranes and derricks in construction. The revised standard requires employers to (i) perform crane inspections, (ii) utilize qualified or certified crane operators, (iii) address ground conditions, (iv) maintain safe distances from power lines using the encroachment prevention precautions, (v) keep specified records associated with inspections and operator certification or qualification, and (vi) fulfill other obligations under the standards. The revised standard clarifies the scope of the regulation by providing both a functional description and a list of examples for covered equipment.

Note on Incorporation by Reference: Pursuant to § 2.2-4103 of the Code of Virginia, 29 CFR Part 1926, Construction Industry Standards, is declared a document generally available to the public and appropriate for incorporation by reference. For this reason the document will not be printed in the Virginia Register of Regulations. A copy of the document is available for inspection at the Department of Labor and Industry, 13 South 13th Street, Richmond, Virginia 23219, and in the office of the Registrar of Regulations, General Assembly Building, 9th and Broad Streets, Richmond, Virginia 23219.

Statement of Final Agency Action: On January 20, 2011, the Safety and Health Codes Board adopted federal OSHA's revised final rule for Cranes and Derricks in Construction, §§ 1926.1400 through 1926.1442, and other related Construction Industry Standards as published in 75 FR 47906 on August 9, 2010, with an effective date of April 15, 2011.

Federal Terms and State Equivalents: When the regulations, as set forth in the revised final rule for Cranes and Derricks in Construction and other related sections of the Construction Industry Standards are applied to the Commissioner of the

Department of Labor and Industry or to Virginia employers, the following federal terms shall be considered to read as follows:

<u>Federal Terms</u>	<u>VOSH Equivalent</u>
29 CFR	VOSH Standard
Assistant Secretary	Commissioner of Labor and Industry
Agency	Department
November 8, 2010	April 15, 2011

VA.R. Doc. No. R11-2737; Filed March 2, 2011, 10:01 a.m.

GUIDANCE DOCUMENTS

Sections 2.2-4008 and 2.2-4103 of the Code of Virginia require annual publication in the *Virginia Register* of guidance document lists from state agencies covered by the Administrative Process Act and the Virginia Register Act. A guidance document is defined as "...any document developed by a state agency or staff that provides information or guidance of general applicability to the staff or public to interpret or implement statutes or the agency's rules or regulations..." Agencies are required to maintain a complete, current list of all guidance documents and make the full text of such documents available to the public.

Generally, the format for the guidance document list is: document number (if any), title of document, date issued or last revised, and citation of Virginia Administrative Code regulatory authority or Code of Virginia statutory authority. Questions concerning documents or requests for copies of documents should be directed to the contact person listed by the agency.

OLD DOMINION UNIVERSITY

Copies of the following documents may be viewed during regular work days from 8 a.m. until 5 p.m. in the office of the Assistant to the Vice President for Administration and Finance, Koch Hall, Room 225 A, 49th Street and Hampton Boulevard, Norfolk, VA 23529. Copies may be obtained, free of charge, by contacting Donna Meeks at the same address, telephone (757) 683-3072, FAX (757) 683-5679 or email dmeeks@odu.edu. The documents may be downloaded from the Old Dominion University website (<http://www.odu.edu>).

Questions regarding interpretation or implementation of these guidance documents may be directed to Ms. Donna Meeks, Assistant to the Vice President for Administration and Finance, Old Dominion University, Norfolk, VA 23529, telephone (757) 683-3073, FAX (757) 683-5679, or email dmeeks@odu.edu.

Guidance Documents:

[Faculty Handbook](#), January 2011

[Student Handbook](#) (part of Undergraduate Catalog), 2010-2011

[Board of Visitors Policies and Procedures](#)

[Parking Regulations](#)

VIRGINIA COMMUNITY COLLEGE SYSTEM

Copies of the following document may be viewed during regular work days from 8 a.m. until 4:30 p.m. in the office of the Virginia Community College System, James Monroe Building, 101 N. 14th Street, 15th Floor, Richmond, VA 23219. Copies may be obtained by contacting Ms. Donna Swiney at the same address, telephone (804) 819-4910, FAX (804) 819-4761, or email dswiney@vccs.edu. The document may be downloaded from the Virginia Community College System (VCCS) homepage at <http://www.vccs.edu>.

Questions regarding interpretation or implementation of this document may be directed to Dr. Glenn DuBois, Chancellor, Virginia Community College System, 101 N. 14th St., 15th Floor, Richmond, VA 23219, telephone (804) 819-4903, FAX (804) 819-4760, or email gdubois@vccs.edu.

Guidance Document:

Virginia Community College System Policy Manual, (approximately 319 pages), revised July 17, 2008, §§ 23-214 through 23-231.1, \$25.

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Copies of Workforce Investment Act (WIA) guidance documents are available on the VCCS's website at <http://myfuture.vccs.edu/WorkforceServices/VirginiaWorkforceNetwork/tabid/693/Default.aspx> or by contacting Elizabeth Creamer, Post Secondary Perkins Tech Prep Director, 101 N. 14th St., 17th Floor, Richmond, VA 23219, telephone (804) 819-4691, FAX (804) 819-4772, or email ecreamer@vccs.edu. Unless otherwise indicated, there is a \$1.00 per document copying charge.

Questions regarding interpretation or implementation of WIA guidance documents may be directed to the above named individual. All WIA guidance documents provide interpretive guidance for P.L. 105-220 and 20 CFR Part 652.

Workforce Investment Act Guidance Documents:

Virginia WIA Policy Statements

[99-1 Designation of Local Workforce Investment Areas](#)

[99-2 Establishment of Local Workforce Investment Board](#)

[00-1 Local Workforce Investment Board Focus, Staffing and Service Restrictions](#)

[00-2 Youth Councils under Title I of the Workforce Investment Act](#)

[00-3 Public Participation and Collaboration in the Development and Implementation of the Commonwealth's Workforce Investment System](#)

[00-5 Youth Programs under Title I of the Workforce Investment Act](#)

[00-6 Universal Access, Adult Eligibility and Priority of Services](#)

[00-7 Certification Process for WIA Training Providers](#)

[00-8 Virginia's Training Voucher System under WIA - Revised October 3, 2005](#)

[00-10 Equal Opportunity Policy](#)

[00-12 Assessment Services for Adult, Dislocated Workers and Youth Programs](#)

[00-14 WIA Policy on Corrective Action or Sanctions for Discrimination](#)

[01-01 WIA Methods Of Administration, 29 CFR Part 37](#)

[Methods of Administration Elements](#)

[01-02 Discrimination Policy](#)

[01-03 National Emergency Grant](#)

[01-04 Process for Additional Funding of Dislocated Worker Activities](#)

[02-01 Processing Grievances and Complaints](#)

[02-02 Recaptured Workforce Investment Act Title I Local Formula Funds](#)

[02-04 Existing Worker Strategy, Virginia Workforce Council \(VWC\) Policy](#)

[03-01 Work First](#)

[03-02 Core Services - Revised January 3, 2005](#)

[03-03 Priority of Service](#)

[05-01 Continuous Improvement](#)

[05-02 WIA Incentives](#)

[05-03 Sanctions](#)

[05-04 Use of WIA Local Formula Funds for Economic Development](#)

[07-01 WIA and Trade Co-Enrollment](#)

[10-01 One Stop Service Delivery System](#)

Virginia WIA Eligibility Guidelines

The guidelines for determining WIA eligibility for adults, dislocated workers, and youth.

[Preface](#)

[Introduction](#)

[WIA Adult Eligibility](#)

[WIA Dislocated Worker Eligibility](#)

[WIA Youth Eligibility](#)

[Verification and Documentation for WIA Eligibility](#)

[Selective Service Requirements](#)

[Family Size/Family Income](#)

[Self-Certification and Telephone/Document Inspection Verification Requirements](#)

[WIA Definitions for Title I Eligibility](#)

Virginia Guidance to Local Areas

[Virginia Local Oversight/Monitoring Guide](#)

[Self-Sufficiency Standard - Resource](#)

[State Checklist for One Stop Review and Certification](#)

Virginia Workforce Letters

As the state WIA administrative entity, the VCCS issues Virginia Workforce Letters to provide administrative guidance deemed necessary to implement the WIA in Virginia.

[VWL #00-01 Consumer Reports System](#)

[VWL #00-02 Implementation of Interim Data Collection and Reporting System](#)

[VWL #01-01 Follow-Up Services - \(Revised 8-28-03\)](#)

[VWL #01-02 Employed Worker Response](#)

[VWL #01-03 Memoranda of Understanding Guidelines](#)

[VWL #01-04 Local WIA Program Policy Implementation](#)

[VWL #02-01 Board Staff Costs](#)

[VWL #02-02 Clarification of the Term "School Dropout"](#)

[VWL #02-03 Carrying Over WIA Funds](#)

[VWL #02-04 Local Area WIA Funds Transfer Procedures](#)

[VWL #02-05 Sanctions for Unacceptable Performance](#)

[VWL #02-07 Definition of Family](#)

[VWL #02-08 Definition of Family Income](#)

[VWL #02-09 Local Workforce Investment Board \(LWIB\) Recertification](#)

[VWL #03-02 Training Special Populations](#)

[VWL #03-04 Supplemental Data](#)

[VWL #05-01 Compliance Review CAP Guidance](#)

[VWL #05-02 Corrective Action Plans](#)

[VWL #05-03 Youth Work Experience](#)

[VWL #05-04 Timely Data Entry](#)

[VWL #05-05 Expenses Prohibited Under WIA](#)

[VWL #05-06 Program Income](#)

[VWL #05-08 Individual Training Accounts For Out-of-School and/or Older Youth](#)

Guidance Documents

[VWL #05-09 Local Area Incumbent Worker Training Service Provisions](#)

[VWL #05-11 Credentials and Certifications](#)

[VWL #05-12 WIA Program Participation and Performance Measures](#)

[VWL #05-13 Program Exit](#)

[VWL #07-01 Mandatory Co-Enrollment for WIA and Trade](#)

[VWL #08-01 The State Partner Memorandum of Understanding for Comprehensive One Stop Workforce Centers](#)

[VWL #08-04 Clarification on Services Allowed under Funds Received for Additional Dislocated Worker Activities](#)

[VWL #08-05 Needs-Related Payments and Supportive Services Guidance](#)

[VWL #08-06 2009 Poverty and 70% LLSIL Levels w/100% LLSIL](#)

[VWL #08-07 Timely Data Entry](#)

[VWL #08-08 Out-of-School Youth Definition and 30% Expenditure Level](#)

[VWL #08-09 Priority of Service for Veterans](#)

[VWL #08-10 Work Readiness Skills Goal under ARRA Summer Youth Employment Program](#)

[VWL #08-11 Adult and Dislocated Worker Work Experience Guidance](#)

GENERAL NOTICES/ERRATA

DEPARTMENT OF ENVIRONMENTAL QUALITY

State Implementation Plan Proposed Revision and State Operating Permit Mead/Westvaco Corp.

Purpose of notice: The Department of Environmental Quality (DEQ) is announcing an opportunity for public comment on a permit to limit air pollution emitted by a facility in Alleghany County, Virginia. The Commonwealth intends to submit the permit as a revision to its State Implementation Plan (SIP) in accordance with the requirements of § 110(a) of the federal Clean Air Act. The SIP is the plan developed by the Commonwealth in order to fulfill its responsibilities under the federal Clean Air Act to attain and maintain the ambient air quality standards promulgated by the U.S. Environmental Protection Agency (EPA) under the Act.

Public comment period: March 28, 2011, to April 28, 2011.

State public hearing procedure: Interested persons may request a public hearing. The request must be made in writing to the contact listed below and be received by DEQ by the last day of the comment period. In order to be considered, the request must include the full name, address, and telephone number of the person requesting the hearing and of all people represented by the requester. The request must also include: (i) the reason why a public hearing is requested; (ii) a brief statement setting forth the factual nature and extent of interest in the proposed permit, including how the operation of the facility affects the requester; and (iii) specific references to applicable terms and conditions of concern as well as suggested revisions. A public hearing may be held as required by § 10.1-1322.01 of the Code of Virginia if at least 25 requests are received in accordance with these procedures. Notice of the date, time, and location of any requested public hearing will be announced in a separate notice and another 30-day comment period will be conducted.

Federal public hearing procedure: Interested persons may request a public hearing. The request must be made in writing to the contact listed below and be received by DEQ by the last day of the comment period. In order to be considered, the request must include the full name, address, and telephone number of the person requesting the hearing and of all people represented by the requester. A public hearing will be held as required by 40 CFR 51.102(a) if a request is received in accordance with these procedures. Notice of the date, time, and location of any requested public hearing will be announced in a separate notice and another 30-day comment period will be conducted.

Permit name: State operating permit issued by DEQ under the authority of the State Air Pollution Control Board.

Name, address, and registration number: MeadWestvaco Corporation Packaging Resources Group, 104 East Riverside Street, Covington, VA 24426, Registration No. 20328.

Description of proposal: The proposed revision consists of a permit to control emissions of sulfur dioxide (SO₂) to the atmosphere from the above-listed facility.

In essence, the proposed revision will consist of a determination of reasonable progress for the control of emissions of SO₂ to the atmosphere from the tall stack located at the MeadWestvaco mill. The reasonable progress determination is being made pursuant to 40 CFR 51.208(d) and to Article 5 (9VAC5-80-800 et seq.) of 9VAC5-80, Permits for Stationary Sources. Reasonable progress for SO₂ emissions from the tall stack have been determined to be an additional 15% reduction in hourly and annual emissions.

A state operating permit is to be issued as the administrative mechanism to ensure compliance with reasonable progress requirements. The permit is being issued pursuant to Article 5 (9VAC5-80-800 et seq.) of 9VAC5-80 (Permits for Stationary Sources) of state regulations and is federally enforceable upon issuance. The permit will establish emission limits for control of SO₂.

Federal information: This notice is also being given to satisfy the public participation requirements of federal regulations (40 CFR 51.102). The permit will be submitted as a revision to the Commonwealth of Virginia SIP under § 110(a) of the federal Clean Air Act in accordance with 40 CFR 51.104.

Consultation with federal land managers (FLMs): As provided in 40 CFR 51.302(b)(2), the FLMs were given the opportunity to comment on this permit August 20, 2010. Comments were received on September 21, 2010. DEQ responded to the comments in a letter dated February 14, 2011.

How to comment: DEQ accepts written comments by email, fax, and postal mail. In order to be considered, written comments must include the full name, address, and telephone number of the person commenting and be received by DEQ by the last day of the comment period. Due to problems with the quality of faxes, commenters are encouraged to provide the signed original by postal mail within one week. All testimony, exhibits, and documents received are part of the public record. Please note this permit is being concurrently reviewed by EPA.

To review proposal: The proposal and any supporting documents are available on the DEQ Public Notices for Air Plans and Programs website (<http://www.deq.virginia.gov/air/permitting/planotes.html>). The documents may also be obtained by contacting the DEQ representative named below. The public may review the documents between 8:30 a.m. and 4:30 p.m. of each business day until the close of the public comment period at the following DEQ locations:

- 1) Main Street Office, 8th Floor, 629 E. Main St., Richmond, VA, telephone (804) 698-4070 and

General Notices/Errata

2) Blue Ridge Regional Office, 3019 Peters Creek Rd., Roanoke, VA, telephone (540) 562-6700.

Contact Information: Lillian Alexander, 3019 Peters Creek Road, Roanoke, VA 24019, telephone (540) 562-6783, FAX (540) 562-6725, or email lillian.alexander@deq.virginia.gov.

Total Maximum Daily Load for Fecal Coliform Bacteria in Moore's Creek, in Albemarle County, Virginia

Purpose of notice: To seek public comment on a modification for the total maximum daily load (TMDL) for fecal coliform bacteria in Moore's Creek, in Albemarle County, Virginia.

First public notice issue date: March 28, 2011.

Public comment period: 30 days following first public notice issue date.

Modification to Moore's Creek TMDL: TMDLs have been developed for bacteria to address recreational uses in Moore's Creek. This TMDL was approved by the Environmental Protection Agency on May 24, 2002, and can be found at the following website:

<http://www.deq.virginia.gov/tmdl/apptmdls/fcadden.pdf>.

DEQ proposes to revise the TMDL to accommodate an error that was found in the original TMDL accounting used to calculate the Moore's Creek water quality TMDL allocations. The revised TMDL will be changed to accommodate a flow discharge rate of 15 million gallons per day for the previously permitted facility, Moore's Creek Regional STP (VA0025518), which as a higher number reflects the correct permitted inputs into the stream. Updating the allocations and stated sections in the Moore's Creek bacteria TMDL in accordance with this memo will protect and preserve water quality because they will replace the original and incorrect

TMDL. Downstream TMDLs will not be affected because they were calculated with correct discharge rates for this facility.

How to comment or request a public meeting: DEQ accepts comments and requests for public meeting by email, fax, or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses, and telephone numbers of the commenter or requester and of all persons represented by the commenter or requester. If there is a request for public meeting, it must also include:

1. The reason why a public meeting is requested.
2. A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit.
3. Specific references, where possible, to terms and conditions of the permit with suggested revisions.

DEQ may hold a public meeting, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the TMDL. This public comment period will conclude 30 days following the first public notice issue date, on April 29, 2011.

Contact for public comments, document requests and additional information: Don Kain, Department of Environmental Quality, Valley Regional Office, 4411 Early Road, Harrisonburg, VA 22801, telephone (540) 574-7815, or email donald.kain@deq.virginia.gov.

DEPARTMENT OF FORENSIC SCIENCE

Approval of Field Tests for Detection of Drugs

In accordance with 6VAC40-30, the Regulations for the Approval of Field Tests for Detection of Drugs, and under the authority of the Code of Virginia, the following field tests for detection of drugs are approved field tests:

ODV INCORPORATED
13386 INTERNATIONAL PARKWAY
JACKSONVILLE, FLORIDA 32218-2383

ODV NarcoPouch

Drug or Drug Type:

Heroin

Amphetamine

Methamphetamine

3,4-Methylenedioxymethamphetamine (MDMA)

Cocaine Hydrochloride

Manufacturer's Field Test:

902 – Marquis Reagent

902 – Marquis Reagent

902 – Marquis Reagent

902 – Marquis Reagent

904 or 904B – Cocaine HCl and Base Reagent

<u>Cocaine Base</u>	<u>904 or 904B – Cocaine HCl and Base Reagent</u>
<u>Barbiturates</u>	<u>905 – Dille-Koppanyi Reagent</u>
<u>Lysergic Acid Diethylamide (LSD)</u>	<u>907 – Ehrlich's (Modified) Reagent</u>
<u>Marijuana</u>	<u>908 – Duquenois – Levine Reagent</u>
<u>Hashish Oil</u>	<u>908 – Duquenois – Levine Reagent</u>
<u>Marijuana</u>	<u>909 – K N Reagent</u>
<u>Hashish Oil</u>	<u>909 – K N Reagent</u>
<u>Phencyclidine (PCP)</u>	<u>914 – PCP Methaqualone Reagent</u>
<u>Heroin</u>	<u>922 – Opiates Reagent</u>
<u>Methamphetamine</u>	<u>923 – Methamphetamine/Ecstasy Reagent</u>
<u>3,4–Methylenedioxyamphetamine (MDMA)</u>	<u>923 – Methamphetamine/Ecstasy Reagent</u>
<u>Heroin</u>	<u>924 – Mecke's (Modified) Reagent</u>
<u>Diazepam</u>	<u>925 – Valium/Ketamine Reagent</u>
<u>Ketamine</u>	<u>925 – Valium/Ketamine Reagent</u>
<u>Ephedrine</u>	<u>927 – Ephedrine Reagent</u>
<u>gamma – Hydroxybutyrate (GHB)</u>	<u>928 – GHB Reagent</u>
<u>ODV NarcoTest</u>	
<u>Drug or Drug Type:</u>	<u>Manufacturer's Field Test:</u>
<u>Heroin</u>	<u>7602 – Marquis Reagent</u>
<u>Amphetamine</u>	<u>7602 – Marquis Reagent</u>
<u>Methamphetamine</u>	<u>7602 – Marquis Reagent</u>
<u>3,4–Methylenedioxyamphetamine (MDMA)</u>	<u>7602 – Marquis Reagent</u>
<u>Barbiturates</u>	<u>7605 – Dille-Koppanyi Reagent</u>
<u>Lysergic Acid Diethylamide (LSD)</u>	<u>7607 – Ehrlich's (Modified) Reagent</u>
<u>Marijuana</u>	<u>7608 – Duquenois Reagent</u>
<u>Hashish Oil</u>	<u>7608 – Duquenois Reagent</u>
<u>Marijuana</u>	<u>7609 – K N Reagent</u>
<u>Hashish Oil</u>	<u>7609 – K N Reagent</u>
<u>Cocaine Hydrochloride</u>	<u>7613 – Scott (Modified) Reagent</u>
<u>Cocaine Base</u>	<u>7613 – Scott (Modified) Reagent</u>
<u>Phencyclidine (PCP)</u>	<u>7614 – PCP Methaqualone Reagent</u>
<u>Heroin</u>	<u>7622 – Opiates Reagent</u>
<u>Methamphetamine</u>	<u>7623– Methamphetamine/Ecstasy Reagent</u>
<u>3,4–Methylenedioxyamphetamine (MDMA)</u>	<u>7623– Methamphetamine/Ecstasy Reagent</u>
<u>Heroin</u>	<u>7624 – Mecke's Reagent</u>
<u>Diazepam</u>	<u>7625 – Valium/Ketamine Reagent</u>

General Notices/Errata

Ketamine

7625 – Valium/Ketamine Reagent

Ephedrine

7627 – Chen's Reagent - Ephedrine

gamma – Hydroxybutyrate (GHB)

7628 – GHB Reagent

SIRCHIE FINGERPRINT LABORATORIES

100 HUNTER PLACE

YOUNGSVILLE, NORTH CAROLINA 27596

NARK

Drug or Drug Type:

Manufacturer's Field Test:

Narcotic Alkaloids

1 – Mayer's Reagent

Heroin

1 – Mayer's Reagent

Morphine

1 – Mayer's Reagent

Amphetamine

1 – Mayer's Reagent

Methamphetamine

1 – Mayer's Reagent

Opium Alkaloids

2 – Marquis Reagent

Heroin

2 – Marquis Reagent

Morphine

2 – Marquis Reagent

Amphetamine

2 – Marquis Reagent

Methamphetamine

2 – Marquis Reagent

3,4-Methylenedioxyamphetamine (MDMA)

2 – Marquis Reagent

Meperidine (Demerol) (Pethidine)

2 – Marquis Reagent

Heroin

3 – Nitric Acid

Morphine

3 – Nitric Acid

Cocaine Hydrochloride

4 – Cobalt Thiocyanate Reagent

Cocaine Base

4 – Cobalt Thiocyanate Reagent

Procaine

4 – Cobalt Thiocyanate Reagent

Tetracaine

4 – Cobalt Thiocyanate Reagent

Barbiturates

5 – Dille-Koppanyi Reagent

Heroin

6 – Mandelin Reagent

Morphine

6 – Mandelin Reagent

Amphetamine

6 – Mandelin Reagent

Methamphetamine

6 – Mandelin Reagent

Lysergic Acid Diethylamide (LSD)

7 – Ehrlich's Reagent

Marijuana

8 – Duquenois Reagent

Hashish

8 – Duquenois Reagent

Hashish Oil

8 – Duquenois Reagent

Tetrahydrocannabinol (THC)

8 – Duquenois Reagent

Marijuana

9 – NDB (Fast Blue B Salt) Reagent

<u>Hashish</u>	<u>9 – NDB (Fast Blue B Salt) Reagent</u>
<u>Hashish Oil</u>	<u>9 – NDB (Fast Blue B Salt) Reagent</u>
<u>Tetrahydrocannabinol (THC)</u>	<u>9 – NDB (Fast Blue B Salt) Reagent</u>
<u>Cocaine Base</u>	<u>13 – Cobalt Thiocyanate/Crack Test</u>
<u>NARK II</u>	
<u>Drug or Drug Type:</u>	<u>Manufacturer's Field Test:</u>
<u>Narcotic Alkaloids</u>	<u>01 – Marquis Reagent</u>
<u>Heroin</u>	<u>01 – Marquis Reagent</u>
<u>Morphine</u>	<u>01 – Marquis Reagent</u>
<u>Amphetamine</u>	<u>01 – Marquis Reagent</u>
<u>Methamphetamine</u>	<u>01 – Marquis Reagent</u>
<u>3,4–Methylenedioxymethamphetamine (MDMA)</u>	<u>01 – Marquis Reagent</u>
<u>Morphine</u>	<u>02 – Nitric Acid</u>
<u>Heroin</u>	<u>02 – Nitric Acid</u>
<u>Barbiturates</u>	<u>03 – Dille-Koppanyi Reagent</u>
<u>Lysergic Acid Diethylamide (LSD)</u>	<u>04 – Ehrlich's Reagent</u>
<u>Marijuana</u>	<u>05 – Duquenois – Levine Reagent</u>
<u>Hashish</u>	<u>05 – Duquenois – Levine Reagent</u>
<u>Hashish Oil</u>	<u>05 – Duquenois – Levine Reagent</u>
<u>Tetrahydrocannabinol (THC)</u>	<u>05 – Duquenois – Levine Reagent</u>
<u>Cocaine Hydrochloride</u>	<u>07 – Scott's (Modified) Reagent</u>
<u>Cocaine Base</u>	<u>07 – Scott's (Modified) Reagent</u>
<u>Phencyclidine (PCP)</u>	<u>09 – Phencyclidine Reagent</u>
<u>Opiates</u>	<u>10 – Opiates Reagent</u>
<u>Heroin</u>	<u>10 – Opiates Reagent</u>
<u>Morphine</u>	<u>10 – Opiates Reagent</u>
<u>Heroin</u>	<u>11 – Mecke's Reagent</u>
<u>3,4–Methylenedioxymethamphetamine (MDMA)</u>	<u>11 – Mecke's Reagent</u>
<u>Pentazocine</u>	<u>12 – Talwin/ Pentazocine Reagent</u>
<u>Ephedrine</u>	<u>13 – Ephedrine Reagent</u>
<u>Diazepam</u>	<u>14 – Valium Reagent</u>
<u>Methamphetamine</u>	<u>15 – Methamphetamine (Secondary Amines Reagent)</u>
<u>Narcotic Alkaloids</u>	<u>19 – Mayer's Reagent</u>
<u>Heroin</u>	<u>19 – Mayer's Reagent</u>
<u>Morphine</u>	<u>19 – Mayer's Reagent</u>
<u>Amphetamine</u>	<u>19 – Mayer's Reagent</u>

General Notices/Errata

Methamphetamine

ARMOR HOLDINGS, INCORPORATED
13386 INTERNATIONAL PARKWAY
JACKSONVILLE, FLORIDA 32218-2383

NIK

Drug or Drug Type:

Heroin

Amphetamine

Methamphetamine

3,4-Methylenedioxymethamphetamine (MDMA)

Morphine

Barbiturates

Lysergic Acid Diethylamide (LSD)

Marijuana

Hashish Oil

Tetrahydrocannabinol

Cocaine Hydrochloride

Cocaine Base

Cocaine Hydrochloride

Cocaine Base

Phencyclidine (PCP)

Heroin

Heroin

gamma – Hydroxybutyrate (GHB)

Ephedrine

Pseudoephedrine

Diazepam

Methamphetamine

3,4-Methylenedioxymethamphetamine (MDMA)

Methadone

MISTRAL SECURITY INCORPORATED
7910 WOODMONT AVENUE SUITE 820
BETHESDA, MARYLAND 20814

Drug or Drug Type:

Heroin

Amphetamine

Methamphetamine

19 – Mayer's Reagent

Manufacturer's Field Test:

Test A 6071 – Marquis Reagent

Test A 6071 – Marquis Reagent

Test A 6071 – Marquis Reagent

Test A 6071 – Marquis Reagent

Test B 6072 – Nitric Acid Reagent

Test C 6073 – Dille-Koppanyi Reagent

Test D 6074 – LSD Reagent System

Test E 6075 – Duquenois – Levine Reagent

Test E 6075 – Duquenois – Levine Reagent

Test E 6075 – Duquenois – Levine Reagent

Test G 6077 – Scott (Modified) Reagent

Test G 6077 – Scott (Modified) Reagent

6500 or 6501 – Cocaine ID Swab

6500 or 6501 – Cocaine ID Swab

Test J 6079 – PCP Reagent System

Test K 6080 – Opiates Reagent

Test L 6081 – Brown Heroin Reagent System

Test O 6090 – GHB Reagent

Test Q 6085 – Ephedrine Reagent

Test Q 6085 – Ephedrine Reagent

Test R 6085 – Valium Reagent

Test U 6087 – Methamphetamine Reagent

Test U 6087 – Methamphetamine Reagent

Test W 6088 – Mandelin Reagent System

Manufacturer's Field Test:

Detect 4 Drugs Aerosol

Detect 4 Drugs Aerosol

Detect 4 Drugs Aerosol

<u>Marijuana</u>	<u>Detect 4 Drugs Aerosol</u>
<u>Hashish Oil</u>	<u>Detect 4 Drugs Aerosol</u>
<u>Methamphetamine</u>	<u>Meth 1 and 2 Aerosol</u>
<u>Heroin</u>	<u>Herosol Aerosol</u>
<u>Marijuana</u>	<u>Cannabispray 1 and 2 Aerosol</u>
<u>Hashish Oil</u>	<u>Cannabispray 1 and 2 Aerosol</u>
<u>Cocaine Hydrochloride</u>	<u>Coca-Test Aerosol</u>
<u>Cocaine Base</u>	<u>Coca-Test Aerosol</u>
<u>Marijuana</u>	<u>Pen Test – D4D</u>
<u>Phencyclidine</u>	<u>Pen Test – D4D</u>
<u>Amphetamine</u>	<u>Pen Test – D4D</u>
<u>Ketamine</u>	<u>Pen Test – D4D</u>
<u>Methamphetamine</u>	<u>Pen Test – D4D</u>
<u>Ephedrine</u>	<u>Pen Test – D4D</u>
<u>Heroin</u>	<u>Pen Test – D4D</u>
<u>Methadone</u>	<u>Pen Test – D4D</u>
<u>Buprenorphine</u>	<u>Pen Test – D4D</u>
<u>Opium</u>	<u>Pen Test – D4D</u>
<u>Phenobarbital</u>	<u>Pen Test – Barbitusol</u>
<u>Marijuana</u>	<u>Pen Test – Cannabis Test</u>
<u>Phencyclidine</u>	<u>Pen Test – Coca Test</u>
<u>Cocaine Hydrochloride</u>	<u>Pen Test – Coca Test</u>
<u>Cocaine base</u>	<u>Pen Test – Coca Test</u>
<u>Buprenorphine</u>	<u>Pen Test – C&H Test</u>
<u>Cocaine Hydrochloride</u>	<u>Pen Test – C&H Test</u>
<u>Cocaine base</u>	<u>Pen Test – C&H Test</u>
<u>Ephedrine</u>	<u>Pen Test – C&H Test</u>
<u>Ketamine</u>	<u>Pen Test – C&H Test</u>
<u>Heroin</u>	<u>Pen Test – C&H Test</u>
<u>Lysergic Acid Diethylamide (LSD)</u>	<u>Pen Test – C&H Test</u>
<u>Methadone</u>	<u>Pen Test – C&H Test</u>
<u>Methamphetamine</u>	<u>Pen Test – C&H Test</u>
<u>Heroin</u>	<u>Pen Test – Herosol</u>
<u>Methadone</u>	<u>Pen Test – Herosol</u>
<u>Lysergic Acid Diethylamide</u>	<u>Pen Test – LSD Test</u>
<u>Methamphetamine</u>	<u>Pen Test – Meth/X Test</u>

General Notices/Errata

3,4-Methylenedioxyamphetamine (MDMA)

Morphine

Opium

Diazepam

JANT PHARMACAL CORPORATION

16255 VENTURA BLVD., #505

ENCINO, CA 91436

Formerly available through:

MILLENNIUM SECURITY GROUP

Accutest IDenta

Drug or Drug Type:

Marijuana

Hashish Oil

Heroin

Cocaine Hydrochloride

Cocaine Base

3,4-Methylenedioxyamphetamine (MDMA)

Methamphetamine

COZART PLC

92 MILTON PARK

ABINGDON, OXFORDSHIRE ENGLAND OX14 4RY

Drug or Drug Type:

Cocaine

LYNN PEAVEY COMPANY

10749 WEST 84TH TERRACE

LEXEXA, KS 66214

QuickCheck

Drug or Drug Type:

Marijuana

Marijuana

Hashish Oil

Hashish Oil

Heroin

Heroin

Cocaine Hydrochloride

Cocaine Base

Methamphetamine

Methamphetamine

Pen Test – Meth/X Test

Pen Test – Opiatest

Pen Test – Opiatest

Pen Test – BZO

Manufacturer's Field Test:

Marijuana/Hashish (Duquenois-Levine Reagent)

Marijuana/Hashish (Duquenois-Levine Reagent)

Heroin Step 1 and Step 2

Cocaine/Crack Step 1 and Step 2

Cocaine/Crack Step 1 and Step 2

MDMA Step 1 and Step 2

Methamphetamine Step 1 and Step 2

Manufacturer's Field Test:

Cocaine Solid Field Test

Manufacturer's Field Test:

Marijuana – 10120

Marijuana – 10121

Marijuana – 10120

Marijuana – 10121

Marquis – 10123

Heroin - 10125

Cocaine – 10124

Cocaine – 10124

Meth/Ecstasy – 10122

Marquis – 10123

MDMA

MDMA

DEPARTMENT OF LABOR AND INDUSTRY

**Regulation Applicable to Tree Trimming Operations
(16VAC25-73)**

The Department of Labor and Industry's Virginia Occupational Safety and Health (VOSH) Program and the Virginia Safety and Health Codes Board have adopted a final regulation for Tree Trimming Operations, 16VAC25-73.

Effective Date and Training Materials:

The final regulation will take effect April 27, 2011. The text of the final regulation, along with free downloadable training and information materials can be found on the department's website (<http://www.doli.virginia.gov>). The final regulation is also being published in the Virginia Register of Regulations on March 28, 2011 (<http://register.dls.virginia.gov/vol27/Welcome.htm>).

Outreach and Phased Enforcement Approach

To provide employers and employees with sufficient time to familiarize themselves with the requirements of the comprehensive new Tree Trimming Operations regulation, the VOSH Program will use a phased enforcement approach:

1. VOSH Inspectors/Consultants will be provided with handouts on the new regulation that can be distributed to employers and employees in the weeks leading up to the effective date of April 27, 2011. A training program will be posted on the department's website. Articles on the new regulation will be sent out for publication to organizations with newsletters. "Quick cards" will be available for

download from the department's website to briefly explain requirements of the regulation and will be translated into Spanish as well. A VOSH directive with enforcement procedures and interpretations will be posted on the department's website.

2. For the first month after the effective date of the regulation, April 27, 2011, to May 26, 2011, VOSH will primarily operate in a nonenforcement mode with regard to the new regulation, performing outreach activities with employers and employees. However, current protections for employees will remain in place during the outreach period – see number 3 below.

If, during an onsite inspection, violations of the new regulation are noted, VOSH inspectors will give one "warning" to the employer for any noted violations at the specific worksite, but not cite the violation. The VOSH inspector will verify that the violation is corrected and note the violation and corrective action taken in field notes. The

Meth/Ecstasy – 10122

Marquis - 10123

warning and handout materials need to be provided to an on-site supervisor, foreman, or lead person. If the VOSH inspector returns the next day and finds the same violation recurring, or if the employer refuses to correct the violation, the employer can be cited.

3. During the first month after the effective date of the regulation, April 27, 2011, to May 26, 2011, employers shall at a minimum protect employees' safety and health by continuing to comply with existing federal identical VOSH regulations and 16VAC25-60-120 of the VOSH Administrative Regulations Manual.

4. For the second month after the effective date of the regulation, May 27, 2011, to June 26, 2011, VOSH will discontinue enforcement of existing federal identical regulations that are superseded by the new regulation and fully enforce the following sections of the Tree Trimming Operations regulation:

16VAC25-73-10 Scope, purpose, and applicability;

16VAC25-73-20 Definitions;

16VAC25-73-40 General safety requirements;

16VAC25-73-50 Electrical hazards;

16VAC25-73-60 Safe use of vehicles equipment and mobile in arboriculture;

16VAC25-73-70 Portable power hand tools;

16VAC25-73-80 Hand tools and ladders; and

16VAC25-73-90 Work procedures

5. 16VAC25-73-30, which contains the training requirements, will not be cited during the second month after the effective date, May 27, 2011, to June 26, 2011. This extra time period will give employers and employees time to access the training materials that are being provided.

6. All sections of the regulation will be fully enforced starting June 27, 2011.

**VIRGINIA SOIL AND WATER CONSERVATION
BOARD**

Notice of Public Comment Period

Title of Regulations: **4VAC50-60. Virginia Stormwater Management Program (VSMP) Permit Regulations (Parts I, II, and III).**

Notice is hereby given that the Department of Conservation and Recreation is receiving public comments on the Virginia Stormwater Management Program (VSMP) Permit

General Notices/Errata

Regulations (Parts I, II, and III). On December 9, 2009, the Virginia Soil and Water Conservation Board (board) adopted revisions to the regulations and suspended the effective date of these regulatory actions, in response to 25 petitions received during the 30-day final adoption period, in accordance with § 2.2-4007.06 of the Administrative Process Act. In response to legislative action taken during the 2010 Session of the General Assembly (Chapters 137 and 370), the department convened a Regulatory Advisory Panel (RAP) to review the regulations and to make recommendations to the board. Prior to presentation of the RAP's recommendations to the board, the department wishes to solicit public comment on the proposed revisions to the regulations. A copy of the regulations and associated documents may be found at <http://www.dcr.virginia.gov/lr2d.shtml>.

The comment period will begin on March 28, 2011, and will end on April 27, 2011. Anyone wishing to submit comments may do so by mail, facsimile, or email. Comments may be mailed to the Regulatory Coordinator at: Virginia Department of Conservation and Recreation, 203 Governor Street, Suite 302, Richmond, VA 23219. Comments may also be faxed to (804) 786-6141 or emailed to the coordinator at regcord@dcr.virginia.gov. Public comments will be accepted until 5 p.m. on April 27, 2011.

VIRGINIA CODE COMMISSION

Notice to State Agencies

Contact Information: *Mailing Address:* Virginia Code Commission, 910 Capitol Street, General Assembly Building, 2nd Floor, Richmond, VA 23219; *Telephone:* Voice (804) 786-3591; FAX (804) 692-0625; *Email:* varegs@dls.virginia.gov.

Meeting Notices: Section 2.2-3707 C of the Code of Virginia requires state agencies to post meeting notices on their websites and on the Commonwealth Calendar at <http://www.virginia.gov/cmsportal3/cgi-bin/calendar.cgi>.

Cumulative Table of Virginia Administrative Code Sections Adopted, Amended, or Repealed: A table listing regulation sections that have been amended, added, or repealed in the *Virginia Register of Regulations* since the regulations were originally published or last supplemented in the print version of the Virginia Administrative Code is available at <http://register.dls.virginia.gov/cumultab.htm>.

Filing Material for Publication in the Virginia Register of Regulations: Agencies are required to use the Regulation Information System (RIS) when filing regulations for publication in the *Virginia Register of Regulations*. The Office of the Virginia Register of Regulations implemented a web-based application called RIS for filing regulations and related items for publication in the Virginia Register. The Registrar's office has worked closely with the Department of

Planning and Budget (DPB) to coordinate the system with the Virginia Regulatory Town Hall. RIS and Town Hall complement and enhance one another by sharing pertinent regulatory information.

The Office of the Virginia Register is working toward the eventual elimination of the requirement that agencies file print copies of regulatory packages. Until that time, agencies may file petitions for rulemaking, notices of intended regulatory actions, and general notices in electronic form only; however, until further notice, agencies must continue to file print copies of proposed, final, fast-track, and emergency regulatory packages.

ERRATA

STATE AIR POLLUTION CONTROL BOARD

Title of Regulation: 9VAC5-60. Hazardous Air Pollutant Sources (Rev. G10).

Publication: 27:11 VA.R. 1009-1026 January 31, 2011.

Correction to Final Regulation:

Page 1025, 9VAC5-60-100, column 2, Subpart VVVVVV, after "~~Reserved~~," underline "Chemical Manufacturing Area Source"

VA.R. Doc. No. R11-2537; Filed March 8, 2011, 2:49 p.m.

Title of Regulation: 9VAC5-160. Regulation for General Conformity (Rev. F10).

Publication: 27:11 VA.R. 1058-1075 January 31, 2011.

Correction to Final Regulation:

Page 1062, 9VAC5-160-30 B, line 3, after "nitrogen dioxide," strike "and"

VA.R. Doc. No. R11-2518; Filed March 8, 2011, 2:49 p.m.