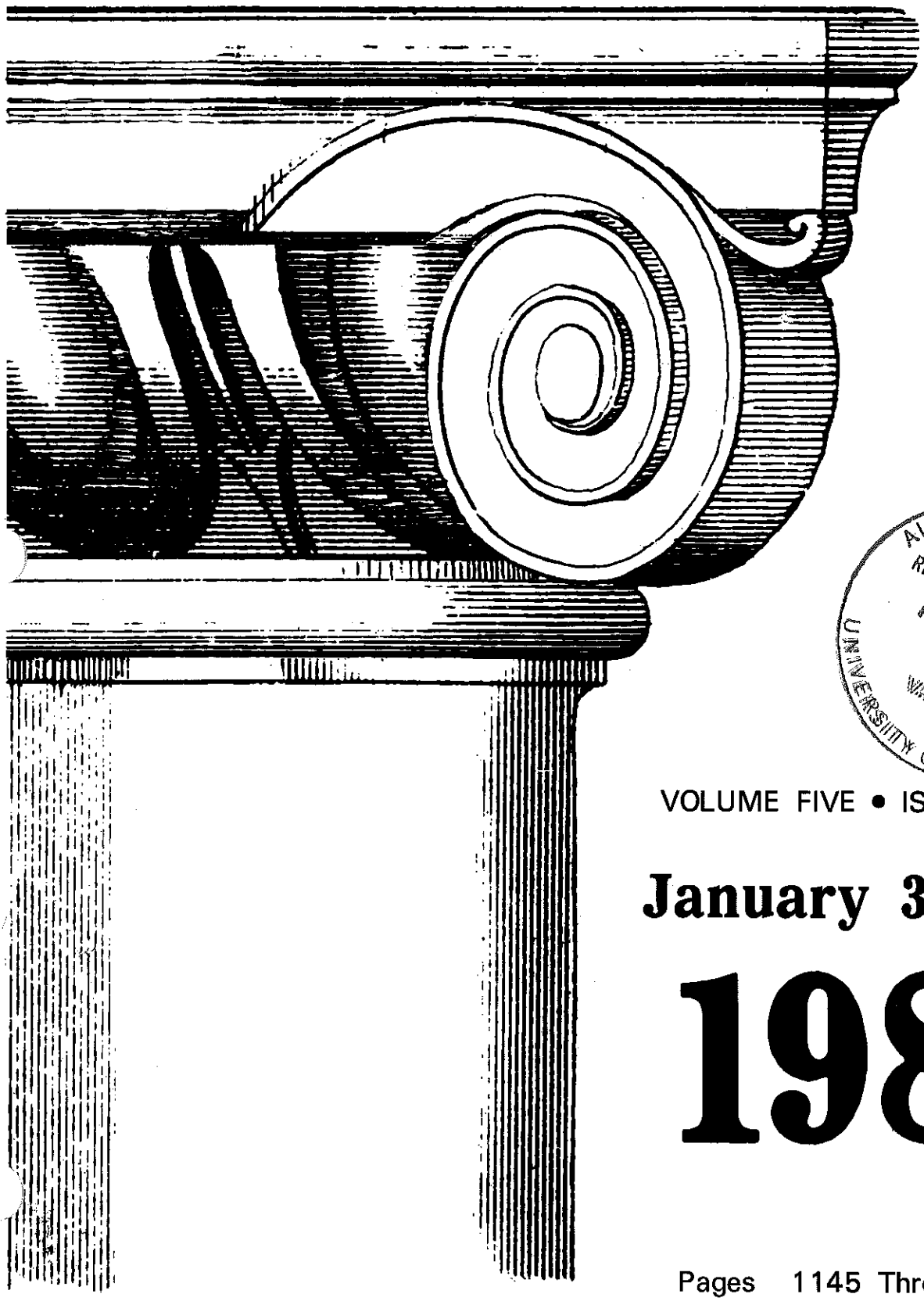
THE VIRGINIA REGISTER

OF REGULATIONS



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INFORMATION ABOUT THE VIRGINIA REGISTER OF REGULATIONS

VIRGINIA REGISTER

The *Virginia Register* is an official state publication issued every other week throughout the year. Indexes are published quarterly, and the last index of the year is cumulative.

The *Virginia Register* has several functions. The full text of all regulations, both as proposed and as finally adopted or changed by amendment are required by law to be published in the *Virginia Register of Regulations.*

In addition, the *Virginia Register* is a source of other information about state government, including all Emergency Regulations issued by the Governor, and Executive Orders, the Virginia Tax Bulletin issued periodically by the Department of Taxation, and notices of all public hearings and open meetings of state agencies.

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 proposed action; a basis, purpose, impact and summary statement; a notice giving the public an opportunity to comment on the proposal, and the text of the proposed regulations.

Under the provisions of the Administrative Process Act, the Registrar has the right to publish a summary, rather than the full text, of a regulation which is considered to be too lengthy. In such case, the full text of the regulation will be available for public inspection at the office of the Registrar and at the office of the promulgating agency.

Following publication of the proposal in the *Virginia Register,* sixty days must elapse before the agency may take action on the proposal.

During this time, the Governor and the General Assembly will review the proposed regulations. The Governor will transmit his comments on the regulations to the Registrar and the agency and such comments will be published in the *Virginia Register.*

Upon receipt of the Governor's comment on a proposed regulation, the agency (i) may adopt the proposed regulation, if the Governor has no objection to the regulation; (ii) may modify and adopt the proposed regulation after considering and incorporating the Governor's suggestions, or (iii) may adopt the regulation without changes despite the Governor's recommendations for change.

The appropriate standing committee of each branch of the General Assembly may meet during the promulgation or final adoption process and file an objection with the *Virginia Registrar* and the promulgating agency. The objection will be published in the *Virginia Register.* Within twenty-one days after receipt by the agency of a legislative objection, the agency shall file a response with the Registrar, the objecting legislative Committee, and the Governor

When final action is taken, the promulgating agency must again publish the text of the regulation, as adopted, highlighting and explaining any substantial changes in the final regulation. A thirty-day final adoption period will commence upon publication in the *Virginia Register.*

The Governor will review the final regulation during this time and if he objects, forward his objection to the Registrar and the agency. His objection will be published in the *Virginia Register.* If the Governor finds that changes made to the proposed regulation are substantial, he may suspend the regulatory process for thirty days and require the agency to solicit additional public comment on the substantial changes.

A regulation becomes effective at the conclusion of this thirty-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 twenty-one day extension period; or (ii) the Governor exercises his authority to suspend the regulatory process for solicitation of additional public comment, in which event the regulation, unless withdrawn, becomes effective on the date specified which date shall be after the expiration of the period for which the Governor has suspended the regulatory process.

Proposed action on regulations may be withdrawn by the promulgating agency at any time before final action is taken.

EMERGENCY REGULATIONS

If an agency determines that an emergency situation exists, it then requests the Governor to issue an emergency regulation. 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 in time and cannot exceed a twelve-months duration. The emergency regulations will be published as quickly as possible in the *Virginia Register.*

During the time the emergency status is in effect, the agency may proceed with the adoption of permanent regulations through the usual procedures (See "Adoption, Amendment, and Repeal of Regulations," above). If the agency does not choose 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 of Chapter 1.1:1 (§§ 9-6.14:6 through 9-6.14:9) 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. **1:3 VA.R. 75-77 November 12, 1984** refers to Volume 1, Issue 3, pages 75 through 77 of the Virginia Register issued on November 12, 1984.

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VIRGINIA REGISTER OF REGULATIONS

PUBLICATION DEADLINES AND SCHEDULES

February 1989 through March 1990

MATERIAL SUBMITTED BY Noon Wednesday	PUBLICATION DATE
Jan. 25	Feb. 13
Feb. 8	Feb. 27
Feb. 22	Mar. 13
Mar. 8	Mar. 27
Index 2 - Volume 5	
Mar. 22	Apr. 10
Apr. 5	Apr. 24
Apr. 19	May 8
May 3	May 22
May 17	June 5
May 31	June 19
Index 3 - Volume 5	
June 14	July 3
June 28	July 17
July 12	July 31
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Aug. 9	Aug. 28
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Oct. 4	Oct. 23
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FINAL REGULATIONS

For information concerning Final Regulations, see information page.

Symbol Key

Roman type indicates existing text of regulations. *Italic type* indicates new text. Language which has been stricken indicates text to be deleted. [Bracketed language] indicates a substantial change from the proposed text of the regulations.

DEPARTMENT OF CORRECTIONS (STATE BOARD OF)

Title of Regulation: **VR 230-40-005. Minimum Standards for Virginia Delinquency Prevention and Youth Development Act Grant Programs.**

NOTICE: The Department and the State Board of Corrections are **withdrawing** this regulation effective January 18, 1989. This regulation was published as a final in 5:6 VA.R. 759-766 December 19, 1988.

BOARD FOR COSMETOLOGY

Title of Regulation: **VR 235-01-02. Board for Cosmetology Regulations.**

Statutory Authority: § 54.1-201 5 and Chapter 12 (§ 54.1-1200 et seq.) of Title 54.1 of the Code of Virginia.

Effective Date: March 1, 1989

Summary:

Changes made to the regulation after the proposed regulations were published include the following:

1. The proposed $20 application fee for a cosmetology licence was deleted from § 1.1 as a result of comments received at the public hearing.

2. Upon advice from the Office of the Attorney General, language was rewritten in § 1.4 stating specifice examination fees.

3. Section 1.7 C was reworded and additional language was added for clarification.

4. Language was included in § 2.1 regarding the implementation of the renewal process of certified cosmetology instructors.

5. The fee for renewing a cosmetology license was increased and the fee for renewing a salon license was decreased in § 2.1.D.

6. The additional fee for failing to renew within 30 days following the expiration of a cosmetology license was increased and the additional fee for failing to renew within 30 days following the expiration of a salon license was decreased in § 2.3 A.

7. In § 3.2 language was deleted eliminating the application fee for a cosmetology instructor certificate.

8. Section 3.5 was amended as a result of comments received at the public hearing to allow schools to withhold the hours of students who have not met their contractual financial obligations with the school.

9. Section 4.3 3 was amended as a result written and oral comments received requesting the exception allowing individuals who hold associate degrees or higher to teach theory in the cosmetology schools.

In addition to these substantive changes, other modifications were made for clarity and consistency.

VR 235-01-02. Board for Cosmetology Regulations.

PART I.
ENTRY.

~~1.1. Application Forms. All applications for licensure or certification as a cosmetologist shall be completed in accordance with the accompanying instructions consistent with these regulations and submitted to the Virginia Board of Cosmetology. Each application shall be subscribed and sworn to before a notary public. (54-1.28)~~

§ ~~2.1.~~ *§ 1.1.* ~~General Requirements~~ *Individual license .*

Upon filing *an* application with the [~~Virginia~~] Board [~~of~~ *for*] Cosmetology on forms approved by the board, and paying the license fee, any person meeting the qualifications set by the board shall be granted a license if the applicant ~~submits with the application evidence satisfactory to the Board that~~ *has amply demonstrated that* : ~~(54-1.28)~~

~~2.1.1.~~ *1.* The applicant has received training as defined in ~~Section Four~~ *Part III* of these regulations. ~~(54-1.28)~~

~~2.1.2.~~ *2.* The applicant has qualified for licensure either by passing the required examination or by endorsement. ~~(54-1.28)~~

3. The applicant's license as a cosmetologist has not been previously revoked or suspended.

[~~*The application fee for a cosmetology license and license by endorsement shall be $20.*~~]

[*The fee for license by endorsement shall be $20.*]

~~1.2. Application Deadlines. Applications for an examination must be filed with the Virginia Board of Cosmetology thirty days prior to the announced date of the~~

examination. (54-1.28)

1.3 Review of Applications. All application shall be reviewed by the Board's designee to determine eligibility for examination. An applicant found not eligible for examination may appeal the review, in writing, to the Board within 60 days of the notification. No applicant shall be approved for licensing unless the applicant meets the requirements as set forth in these regulations. (54-1.28)

1.4 Applications Property of the Board. All applications, accompanying material, and references are considered part of the examination and become the property of the Board. (54-1.28)

1.5 Application Fees for Licensure or Certification. Application fees for licensing by examination or by endorsement shall be $35.00. (54-1.28)

1.6 Shop License. The application fee for a Cosmetology shop license shall be $35.00. The license shall expire as provided for in 1.3 of these regulations. (54-1.28)

1.7 School License. The initial application fee and renewal fee for a cosmetology school license shall be $65.00. The license shall expire on December 31 of each even numbered year. (54-1.28, 54-112.2(6), 54-112.26:1)

§ 2.2. *§ 1.2.* Acceptable training.

2.2.1. *A.* Schools.

Any person graduating from *completing a training program in* a licensed cosmetology school or a Virginia public school program in *school's* cosmetology *program* shall be eligible for examination. (54-112.2(6), 54-1.28)

2.2.2. *B.* Apprenticeship training.

Any person completing an *the Virginia* apprenticeship program in cosmetology shall be eligible for examination. (54-112.2(6))

2.2.2.1. *1.* Cosmetology salons training apprentices shall comply with the standards established by the Division of Apprenticeship Training of the Virginia Department of Labor and Industry for Apprenticeship Training. (54.1-28)

§ 2.3. *§ 1.3.* Exceptions to training requirements shown in § 1.4 *§ 1.2.*

2.3.1 *A.* A licensed barber wishing to enroll for *enrolling in a* cosmetology training cosmetology school shall be give *given* credit for 50% of the training required of any licensed barber *for a barber's license* . (54-112.2(6), 54-1.28)

2.3.2. *B.* A student shall be given educational credit for 50% of the training received in a barber school when transferring to a cosmetology school. (54-112.2(6), 54-1.28)

2.3.3. *C.* Persons with two years of cosmetology training or experience outside the territorial limits of the United States shall be eligible for examination upon submission of satisfactory documentary evidence *of the training or experience* . (54-112.2(6), 54-1.28)

§ 2.4. *§ 1.4.* Examinations required.

2.4.1. *A.* Examinations generally.

Applicants for licensure shall pass a practical and written examination *provided by the board or by a testing service acting on behalf of the board* . (54-1.28)

[*B. Fees to cover expenses incurred by a vendor in the administration of the examination will be established in any contract between the vendor and the Department of Commerce. The examination fee will be stated on the application.*]

2.4.2. [*C. B.*] Any applicant passing one part of the examination shall not be required to take that part again provided both parts are passed within one year. (54-1.28)

[*C. The fee for taking the entire examination shall be $60.*

D. The fee for retaking the written portion of the examination shall be $40.

E. The fee for retaking the practical portion of the examination shall be $20.]

2.4.3. The fee for retaking one portion of the examination shall be $20.00. (54-1.28)

2.4.4. The fee for retaking the entire examination shall be $35.00. (54-1.28)

2.5. [*D. F.*] Eligibility *Failure to appear* .

Any candidate failing to appear for an *as scheduled for* examination during the two year period following the first notification of eligibility shall be eligible to sit for the examination by paying $35.00. (54-1.28) *shall forfeit the fee, and shall be required to pay a rescheduling fee equal to the original examination fee.*

§ 2.6. *§ 1.5.* Conduct *Administration* of examination. (54-1.28)

2.6.1. *A.* The examination shall be administered by independent examiners *independent from the board* and *shall be* supervised by the *a* chief examiner. (54-1.28)

2.6.2. *B.* Every examiner shall have at least three years of active experience as a licensed cosmetologist, complete training prescribed by the Board, be currently licensed, and currently practicing cosmetology. (54-1.28) *Every examiner shall be a practicing cosmetologist who has completed the prescribed cosmetology training and who*

has three or more years of active experience as a cosmetologist, and who holds a current cosmetology license.

C. No certified instructor who is currently teaching or [*who is a*] *school owner shall be an examiner.*

~~2.6.3.~~ *D.* ~~The Chief Examiner shall have at least five years of active experience as a licensed cosmetologist and be currently licensed. (54-1.28)~~ *A chief examiner shall be a practicing cosmetologist who has completed the prescribed cosmetology training and who has five or more years of active experience as a licensed cosmetologist,* [~~*and who holds a current cosmetology license*~~] *and* [*who has*] *three years* [*of active*] *experience as an examiner* [*, and who holds a cosmetology license*].

~~2.6.3.1. The Chief Examiner shall report the results of the examination to the Board's office. (54-1.28)~~

~~2.6.3.2. At no time shall the Chief Examiner grade the applicants.~~

§ ~~2.8.~~ *§ 1.6.* License/certification by endorsement.

Upon ~~properly applying~~ *proper application* to the board, *on prescribed forms,* any person currently licensed to practice as a cosmetologist ~~or hairdresser,~~ in any other state or jurisdiction of the United States may be issued a ~~certificate of registration authorizing practice as a cosmetologist in this state,~~ *cosmetology license* without an examination. ~~(54-1.28)~~

§ ~~2.9.~~ *§ 1.7.* Temporary permit.

~~2.9.1.~~ *A.* A temporary permit to work as a cosmetologist under the supervision of a currently licensed cosmetologist may be issued to any person found eligible by the board for examination. ~~The temporary permit fee shall be $5.00. (54-112.3)~~

~~2.9.2.~~ *B.* The temporary permit shall remain in force ~~until thirty~~ *for 30* days following the next scheduled examination for which the applicant would be eligible *to sit* . ~~(54-112.3)~~

~~2.9.3.~~ *C.* ~~The temporary permit is non-renewable. (54-112.3)~~ *A* [~~*person qualified for licensure as a*~~ *licensed*] *cosmetologist* [*or person holding a temporary permit*] *may be granted a student instructor permit to function under the direct supervision of a certified instructor. The student* [*instructor*] *permit shall remain in force for no more than 12 months after the date of issuance and shall be nonrenewable.* [*Failure to maintain a cosmetology license or a temporary permit pending examination shall disqualify an individual from holding a student instructor permit.*]

D. All temporary permits are nonrenewable.

§ 1.8. Salon license.

A. Any individual wishing to operate a cosmetology salon shall obtain a license in compliance with [*§* ~~*54-112.26*~~ *§ 54.1-1205*] *of the Code of Virginia.*

B. A cosmetology salon license shall not be transferable and shall bear the same name and address as the business. Any changes in the name of the salon, address, or owners shall be reported to the board in writing within 30 days of such changes.

C. The application fee for a salon shall be $75.

PART II.
RENEWAL OF LICENSE/CERTIFICATE.

§ ~~1.8.~~ *§ 2.1.* ~~Cosmetologist/Salon/License~~ Renewal required.

~~1.8.1. Licenses that expire on December 31, 1984 for individuals to work as a licensed Cosmetologist and for the operation of Beauty Salons will be renewed in a manner to implement a staggered renewal system whereby approximately an equal number of licenses will be renewed each month during a biennium. (54-1.28)~~

A. All ~~cosmetologist~~ *cosmetology licenses,* [~~*teacher*~~ *instructor*] *certificates,* and salon licenses shall expire ~~2~~ *two* years from the last day of the month in which *they were* issued.

~~1.8.1.1. Licenses expiring on December 31, 1984 will be renewed for a period of time ranging from 7 to 30 months determined by a random selection. (54-1.28)~~

~~1.8.1.2. Renewal notices mailed in the fall of 1984 will indicate the amount of fee due and the next expiration date. The amount of fees charged to each licensee will be determined based on the following schedule. (This fee schedule is to be used on a one time basis only).~~

[*B. All certified cosmetology instructors shall have until September 1, 1989, to renew their instructor certificate. The instructor certificate will expire two years from the last day of the month in which issued. Individuals failing to renew the certificate by September 1, 1989, shall apply for reinstatement of the certificate in accordance with § 2.3.*]

[~~*B.*~~ *C.*] *Cosmetology school licenses shall expire on December 31 of each even numbered year.*

[~~*C.*~~ *D.*] *The renewal fee for a cosmetology license shall be* [~~*$30*~~ *$35*] *, for* [*a* ~~*teacher's*~~ *an instructor*] *certificate shall be $40, for a salon license shall be* [*$60, and for a school license shall be*] *$100.*

~~Expiration Date~~	~~Fee Amount~~	
	~~Cosmetology~~	~~Beauty Shops~~
~~July 31, 1985~~	~~$ 7~~	~~$10~~
~~August 31, 1985~~	~~8~~	~~11~~
~~September 30, 1985~~	~~9~~	~~13~~
~~October 31, 1985~~	~~10~~	~~14~~

November 30, 1985	11		15
December 31, 1985	12		17
January 31, 1986	13		18
February 28, 1986	14		20
March 31, 1986	15		21
April 30, 1986	16		23
May 31, 1986	17		24
June 30, 1986	18		26
July 31, 1986	19		27
August 31, 1986	20		29
September 30, 1986	21		30
October 31, 1986	22		31
November 30, 1986	23		33
December 31, 1986	24		35
January 31, 1987	25		36
February 28, 1987	26		37
March 31, 1987	27		39
April 30, 1987	28		40
May 31, 1987	39		42
June 30, 1987	30		43

(54-1.28)

1.8.1.3. Thereafter, all licenses expiring on or after July 31, 1985, will be renewed for a two year period. The amount of renewal fee will be $25 for a Cosmetologist and $35 for a Beauty Salon.

1.8.1.4. Beginning on July 1, 1984, all new licenses will expire two years from the last day of the month in which issued.

§ 1.8.2. *§ 2.2. Notice of renewal.*

The Department of Commerce will mail a renewal notice to the licensee outlining the procedures for renewal. Failure to receive this notice, however, shall not relieve the licensee of the obligation to renew. If the licensee fails to receive the renewal notice, a copy of the old license may be submitted as evidence *of intent to renew, along* with the required fee.

§ 1.8.3. *§ 2.3. Failure to renew.*

A. If *When* a licensee *licensed/certified individual* [*or entity*]fails to renew their *the* license within one month *30 days* following the date it expires, *its expiration date,* [a] penalty [*late renewal an additional*] fee of $25 for Cosmetologists and $35 for Beauty Salons *of* [*$30 $35*] *for a cosmetology license, of $40 for a teachers certificate, of* [*$75 $60*] *for the salon license, and of $100 for the school* license will be required in addition to the regular renewal fee *in order to renew his license* . (54-1.28)

1.8.4. *B.* If *When* a licensee *licensed/certified individual* [*or entity*] fails to renew their *his* license within six months following its expiration date, the licensee must apply for reinstatement of the license by submitting to the Department of Commerce a renewal *reinstatement* application and *reinstatement fee of $160 for a cosmetology license, of $180 for* [*a teachers an instructor*] *certificate, of $250 for a salon license, and $300 for a school license* of $50 for Cosmetologists and $70 for Beauty salons, with a statement of the reasons for failing to renew prior to the expiration date. (54-1.28)

1.8.5. *C.* Upon receipt of the renewal *reinstatement* application , *and* fee , and statement, the board may reinstate the license [*/certificate*] or require requalification , reexamination, or both. (54-1.28)

D. When an individual licensee fails to renew his license after a two-year period of time the licensee must pass both a practical and a written examination [*in order*] *to be reinstated.*

1.8.6. *E.* The date a *renewal* fee is received by the Department of Commerce, or its agent, will be used to determine whether a penalty fee or the requirement for reinstatement of a license is applicable for each fee received .

1.9. *F.* Fees.

All fees are nonrefundable. (54-1.28)

§ 2.4. Board discretion to deny renewal.

The board [,] *in its discretion* [,] *may deny renewal of a license upon such denial, the application for renewal may request that a hearing be held.*

PART III.
COSMETOLOGY SCHOOLS.

§ 4.1. *§ 3.1.* General requirements. (54-112.2(6), 54-112,26:1)

A cosmetology school shall be an entity that :

4.1.1. *1.* Hold a school license *for each and every location* ; (54-112.2(6), 54-26.1)

4.1.2. *2.* Hold a salon license if the school receives compensation for services provided in its clinic; (54-112.2(4), 54-112.26)

4.1.3. *3.* Employ a staff of certified cosmetology instructors; and (54-112.2(8))

4.1.4. *4.* Develop individuals for entry level of competency in cosmetology. (54-1.28)

The application fee for a cosmetology school license shall be $100.

§ 2.7. *§ 3.2.* To obtain a certificate as a cosmetology instructor, a person shall: (54c-112.2(8))

2.7.1. *1.* Be the holder of *Hold* a current *Virginia* cosmetology license; and (54c-112.2(3))

2.7.2. *2.* Pass a course in teaching techniques approved by the State Board of Education; or

Complete an instructor training course approved by the [Virginia] Board [of *for*] Cosmetology [supervised by *under the supervision of*] a certified

cosmetology instructor in a beauty school and a seminar approved by the [~~Virginia~~] Board [~~of~~ *for*] Cosmetology; or

Pass an examination in cosmetology instruction administered by the board.

[~~*The application for a cosmetology instructor certificate shall be $30.*~~]

§ ~~4.2.~~ *§ 3.3.* Curriculum requirements.

Each school shall submit with its application a detailed course outline, *to be taught, which shall* ~~to~~ include the following: ~~(54-1.28, 54-112.26.1, 54-112.2(6))~~

~~4.2.1.~~ *A.* Orientation:

~~4.2.1.1.~~ School policies

~~4.2.1.2.~~ State law, regulations, and professional ethics

~~4.2.1.3.~~ Personal hygiene

~~4.2.1.4.~~ Bacteriology, sterilization, and sanitation

~~4.2.2.~~ *B.* Manicuring and pedicuring: ~~(54-1.28, 54-112,26:1, 54-112.2(6))~~

~~4.2.2.1.~~ Anatomy and physiology

~~4.2.2.2.~~ Diseases and disorders

~~4.2.2.3.~~ Procedures *to include both natural and artificial*

~~4.2.2.4.~~ Sterilization

~~4.2.3.~~ *C.* Shampooing and rinsing: ~~(54-1.28, 54-112.26:1, 54-112(6))~~

~~4.2.3.1.~~ Fundamentals

~~4.2.3.2.~~ Safety rules

~~4.2.3.3.~~ Procedures

~~4.2.3.4.~~ Chemistry, anatomy, and physiology

~~4.2.4.~~ *D.* Scalp treatments: ~~(54-1.28, 54-112.26.1, 54-112.2(6))~~

~~4.2.4.1.~~ Analysis

~~4.2.4.2.~~ Disorders and diseases

~~4.2.4.3.~~ Manipulations

~~4.2.4.4.~~ Treatments

~~4.2.5.~~ *E.* Hair styling: ~~(54-1.28, 54-112,26:1, 54-112.2(6))~~

~~4.2.5.1.~~ Anatomy and facial shapes

~~4.2.5.2.~~ Finger waving, molding, and pin curling

~~4.2.5.3.~~ Roller curling, combing, and brushing

~~4.2.5.4.~~ Heat curling, waving, and pressing

~~4.2.6.~~ *F.* Hair cutting: ~~(54-1.28, 54-112.26:1, 54-112.2(6))~~

~~4.2.6.1.~~ Anatomy and physiology

~~4.2.6.2.~~ Fundamentals, materials, and equipment

~~4.2.6.3.~~ Procedures

~~4.2.6.4.~~ Safety practices

~~4.2.7.~~ *G.* Permanent waving-chemical relaxing: ~~(54-1.28, 54-112.26:1, 54-112.2(6))~~

~~4.2.7.1.~~ Analysis

~~4.2.7.2.~~ Supplies and equipment

~~4.2.7.3.~~ Procedures and practical application

~~4.2.7.4.~~ Chemistry

~~4.2.7.5.~~ Record keeping

~~4.2.7.6.~~ Safety

~~4.2.8.~~ *H.* Hair coloring and bleaching: ~~(54-1.28, 54-112.26.1, 54-112.2(6))~~

~~4.2.8.1.~~ Analysis and basic color theory

~~4.2.8.2.~~ Supplies and equipment

~~4.2.8.3.~~ Procedures and practical application

~~4.2.8.4.~~ Chemistry and classifications

~~4.2.8.5.~~ Record keeping

~~4.2.8.6.~~ Safety

~~4.2.9.~~ *I.* Skin care and make up: ~~(45-1.28, 54-112.26:1, 54-112.2(6))~~

~~4.2.9.1.~~ Analysis

~~4.2.9.2.~~ Anatomy

~~4.2.9.3.~~ Health, safety, and sanitary rules

~~4.2.9.4.~~ Procedures

~~4.2.9.5.~~ Chemistry and light therapy

ulations

ated theory: ~~(54-1.28,~~

zation

management: ~~(54-1.28, 54-112.26:1,~~

usiness ethics

~~.2.~~ Care of equipment

~~.3.~~ *§ 3.4.* Performance completions.

Each approved school or approved apprenticeship sponsor shall certify, on a form provided by the board, that the student or apprentice has satisfactorily completed the following minimum ~~performance completions on a live model~~ *performances* . ~~(54-112.2(6))~~

~~4.3.1.~~ Hair and scalp treatments 10

~~4.3.2.~~ Shampooing and hair styling 320

~~4.3.3.~~ Tinting 15

~~4.3.4.~~ Bleaching and frosting 10

~~4.3.5.~~ Temporary rinses 10

~~4.3.6.~~ Semi-permanent color 10

~~4.3.7.~~ Cold permanent waving or chemical relaxing 25

~~4.3.8.~~ Hair shaping 50

~~4.3.9.~~ Wig care, styling, placing on model 5

~~4.3.10.~~ Finger waving and thermal waving 30

~~4.3.11.~~ Manicuring 10

~~4.3.12.~~ Facials 5

..... 500

§ ~~4.4.~~ *§ 3.5.* Performances *and hours* reported.

Upon completion of 25%, 50%, and 75% of performances *or hours* completed by a student in a licensed school, the school shall provide ~~a personalized~~ *an individualized* written report to the student of performances and hours completed. ~~(54-112.2(6)), 54-112.26:1)~~ *Upon termination of a student from a licensed school, for any reason, the school shall provide a written report to the student on performances and hours completed* [*except that, where in the case of a written contract between an individual and a school, the individual has not met contractual financial obligations*].

§ ~~4.5. Performances and hours Reported Upon Termination.~~

~~Upon termination of a student from a licensed school, for any reason, the school shall provide a written report to the Board of Cosmetology on performances and hours completed. (54-112.2(6), 54-112.26:1)~~

§ 3.6. Each cosmetology school shall maintain written records of hours and performances completed for each student for a period of five years after the student terminates or completes the curriculum.

§ ~~4.6.~~ *§ 3.7.* Hours and performances required, exception:

Curriculum and completion requirements shall be offered over a minimum of 1500 clock hours unless the school presents evidence satisfactory to the board that the school:

~~4.6.1.~~ *1.* Will measure for competency, for each student enrolled, tasks specified in § ~~4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.2.8, 4.2.9, and 4.2.10~~ *subsections C through J of § 3.3 of these regulations* ; ~~and~~

~~4.6.2.~~ *2.* Inform each student of progress in achieving competency of tasks taught; and

~~4.6.3.~~ *3.* Record the number of clock hours of instructions *and performances of* ~~for~~ each student.

§ ~~4.7. Hours to be Reported.~~

~~Upon completion of a required course by a student, the school shall report accurately the number of clock hours credited to a student, including transfer hours accepted by the Board for other instruction, to the Board.~~

PART IV.
STANDARDS OF PRACTICE.

§ ~~3.1.~~ *§ 4.1.* Display of license , *permit, and certificate* .

~~The license to practice as a cosmetologist~~ *All current licenses, permits, and certificates* issued by the board shall be ~~prominently~~ *visibly* displayed in the school or establishment where ~~the cosmetologist is employed~~ *business is conducted* . ~~(54-1.28)~~

§ ~~3.2.~~ *§ 4.2.* Sanitation.

Licensees of schools and salons shall comply with the following sanitation standards [*and shall ensure that all*

employees likewise comply]: ~~(54-112.26:2, 54-1.28)~~

~~3.2.1.~~ *1.* Premises and equipment. ~~(54-112.26:2, 54-1.28)~~

~~3.2.1.1.~~ *a.* Cleanliness. Wash basins and sinks shall be clean. Floors shall be kept free of hair and other waste materials. ~~Instruments used as~~ Combs, brushes, *towels,* razors, *clippers,* scissors, ~~towels, etc.,~~ *and other instruments* shall be cleaned *after every use* and stored free from contamination. ~~(54-112.26:2, 54-1.28)~~

~~3.2.1.2.~~ *b.* Soiled towels and ~~gowns~~ *robes or smocks* shall be stored in a closed container. ~~(54-112.26:2)~~

~~3.2.2.~~ *2.* Operation and service. ~~(54-112.26:2, 54-1.28)~~

~~3.2.2.1.~~ *a.* Towels and robes. Clean towels and robes shall be used for each patron. ~~(54-112.26:2, 54-1.28)~~

~~3.2.2.2.~~ *b.* Haircloth. When a haircloth is used, a clean towel or neck strip shall be placed around the neck of the patron to prevent the haircloth from touching the skin. ~~(54-112.26:2, 54-1.28)~~

~~3.2.2.3.~~ *c.* Brushes , ~~and~~ combs , *scissors, razors, clippers, and all sharp-edged cutting instruments shall* ~~must~~ be washed and sanitized after each use. ~~(54-112.26:2, 54-1.28)~~

~~3.2.2.4.~~ *d.* ~~Permanent wave equipment~~ Permanent wave rods shall be rinsed after each use *and* end papers shall not be reused. ~~(54-112.26:2, 54-1.28)~~

§ ~~3.3.~~ *§ 4.3.* Discipline.

~~The Board may fine, revoke, suspend and/or deny the renewal of a license or certificate if it finds that: (54-1.28)~~ *The board has the power to fine any licensee or certificate holder or to suspend or revoke any license or certificate issued under the provisions of Chapter* [~~6.1~~ *12*] *of Title* [~~54~~ *54.1*] *of the Code of Virginia and the regulations of the board, at any time after a hearing is conducted pursuant to the provisions of Chapter 1.1:1 of Title 9 of the Code of Virginia if the board finds that:*

~~3.3.1.~~ *1.* The licensee or certificate holder is incompetent or negligent in practice or incapable mentally or physically to practice as a cosmetologist; or ~~(54-1.28)~~

~~3.3.2.~~ *2.* The licensee or certificate holder is guilty of fraud or deceit in the practice or teaching of cosmetology; or ~~(54-1.28)~~

~~3.3.3.~~ *3.* The owner or operator of a school or salon allowed a person to practice or teach cosmetology without *the person* obtaining a license, temporary permit, or certificate *issued by the board.* ~~Exception: Holders of associate degrees or higher shall not be prohibited from teaching theory. (54-1.28)~~ [*Exception: Holders of associate degrees or higher shall not be prohibited from teaching theory.*]

~~3.3.4.~~ *4.* The licensee, certificate holder, or owner ; ~~or manager~~ violates, induces others to violate, or cooperates with others in violating any of the provisions of Chapters [~~1.1~~ *3*] and [~~6.1~~ *12*] of Title [~~54~~ *54.1*] of the Code of Virginia, or these regulations. ~~(54-1.28)~~

5. The licensee, certificate holder, or owner refuses or fails, upon request or demand, to produce to the board or any of its agents, any document, book, record, or copy thereof in a licensee's, certificate holder's, or owner's possession concerning the practice or teaching of cosmetology.

COMMONWEALTH OF VIRGINIA

VIRGINIA BOARD OF COSMETOLOGY

Post Office Box 11066
Richmond, Virginia 23230-1066

INSTRUCTIONS FOR REINSTATEMENT OF LICENSE

The Individual Application for Reinstatement form must be completed in its entirety.

1. The fee for reinstatement of a cosmetology license shall be $160.00

GUIDELINES FOR REINSTATEMENT OF AN INDIVIDUAL LICENSE

A. Persons whose license is not current in Virginia, who show proof of a current license in another jurisdiction, may obtain a Virginia license by endorsement.

B. If a licensee fails to renew their license within six months after its expiration date, the licensee must apply for reinstatement of the license by submitting to the Department of Commerce a renewal application and a fee of $160 with a statement detailing the reasons for failing to renew prior to the expiration date. Upon receipt of the renewal application, fee, and statement, the Virginia Board of Cosmetology may reinstate the license or require requalification, reexamination, or both. If a licensee fails to renew his license for two or more years the licensee must take and pass the examination, both written and practical.

2. The fee for reinstatement of a certified instructor license shall be $180.00
The fee for reinstatement of a salon license shall be $250.00
The fee for reinstatement of a school license shall be $300.00

Make checks payable to the "Treasurer of Virginia." All fees are nonrefundable, including cases when the application is denied.

APPLICATION FOR REINSTATEMENT OF LICENSE
ANSWER ALL QUESTIONS

Name: _____ Date: _____, 19 ____

Address: _____

NOTE: DEPOSIT OF APPLICANT PROCESSING FEE DOES NOT INDICATE LICENSE HAS BEEN APPROVED. ALL FEES ARE NONREFUNDABLE.

☐ Cosmetology ☐ Shop	Certificate Number:	Date Issued:

CENTRAL FEE PROCESSING SECTION ONLY

Give reasons for failure to renew. (Use a separate sheet if necessary.) _____

List the States where you are now currently licensed and your license number:

State	License No.	Expiration Date

AFFIDAVIT AND NOTARIZATION

(To Be Executed By all Applicants Have this AFFIDAVIT completed by a Notary Public

State of _____

County or City of _____

The undersigned applicant, being duly sworn deposes and says that they are the person who executed this application, that the statements herein contained are true, that they have not suppressed any information that might affect this application, and that they have read and understand this affidavit.

_____ _____
Signature of Applicant Signature of Notary Public

Subscribed and sworn to before me this ____ day of _____, 19____

My commission expires: _____

For Official Use only		
Date	Approved	Disapproved

Certificate No. _____
Date _____
For office use only

FEE: $20.00
(Make check or money order payable to The Treasurer of Virginia)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF COMMERCE
Virginia Board of Cosmetology
Post Office Box 11066
Richmond, Virginia 23230-1066

Application of Endorsemer

Applicant's Last Name (Place one letter in each block)

Phone No. _____

First Name

Middle Name

Street Address

City

State

Zip Code

Date of Birth:

Social Security No.

All applicants applying for endorsement shall provide a copy of their current license and certification from their original state of licensure verifying that they are in good standing.

Section III

(To Be Executed By all Applicants) Have this AFFIDAVIT completed by a Notary Public

State of _____

County or City of _____

The undersigned applicant, being duly sworn deposes and says that they are the person who executed this application, that the statements herein contained are true, that they have not suppressed any information that might affect this application, and that they have read and understand this affidavit.

Signature of Applicant

Signature of Notary Public

Subscribed and sworn to before me this ____ day of _____, 19___

My commission expires: _____

REVISED 03-87

Certificate No. _____
Date _____
For office use only

FEE: $75.00
(Make check or money order payable to The Treasurer of Virginia)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF COMMERCE
Virginia Board of Cosmetology
Post Office Box 11066
Richmond, Virginia 23230-1066

APPLICATION FOR LICENSE TO OPERATE A COSMETOLOGY SALON

NAME OF SALON: _____ PHONE NO. _____

ADDRESS OF SALON: _____
Street and Number City County Zip Code

OWNER'S NAME: _____
Last Name First Name Middle

OWNER'S MAILING ADDRESS: _____
Street and Number City County Zip Code

NOTE: DEPOSIT OF APPLICANT PROCESSING FEE DOES NOT INDICATE LICENSE HAS BEEN APPROVED. ALL FEES ARE NONREFUNDABLE.

AFFIDAVIT OF INSPECTION
(If required by Local Ordinance)

This is to certify _____ cosmetology salon

_____
(Address)

has been inspected and found to comply with the regulations of the Local and/or State Health Department(s).

State and/or Local Health Department

Signature of Inspector

AFFIDAVIT

I do hereby certify that the information given by me in this application is true to the best of my knowledge and belief.

Signature of Applicant

Signature of Notary Public

Subscribed and sworn to before me this ____ day of _____, 19___

My commission expires: _____

Certificate No. _____
Date _____
For office use only

APPLICATION FOR: ( ) Competency Based Program
( ) Hour Program

FEE: $75.00
(Make check or money order payable to The Treasurer of Virginia)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF COMMERCE
Virginia Board of Cosmetology
Post Office Box 11066
Richmond, Virginia 23230-1066

APPLICATION FOR LICENSE TO OPERATE A COSMETOLOGY SCHOOL

NAME OF SCHOOL: _____ PHONE NO. _____

ADDRESS OF SCHOOL: _____
Street and Number City County Zip Code

OWNER'S NAME: _____
Last Name First Name Middle

OWNER'S MAILING ADDRESS: _____
Street and Number City County Zip Code

==========

NOTE: DEPOSIT OF APPLICANT PROCESSING FEE DOES NOT INDICATE LICENSE HAS BEEN APPROVED. ALL FEES ARE NONREFUNDABLE.

==========

AFFIDAVIT OF INSPECTION
(If required by Local Ordinance)

This is to certify _____ cosmetology salon

_____
(Address)

has been inspected and found to comply with the regulations of the Local and/or State Health Department(s).

_____ _____
State and/or Local Health Department Signature of Inspector

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AFFIDAVIT

I do hereby certify that the information given by me in this application is true to the best of my knowledge and belief.

_____ _____
Signature of Applicant Signature of Notary Public

Subscribed and sworn to before me this ____ day of _____, 19___

My commission expires: _____

_____
DO NOT WRITE BELOW THIS LINE

____Approved for COMPETENCY BASED PROGRAM____

_____

____ Approved for HOUR PROGRAM

All schools and programs must be approved by the Board.

HOUR PROGRAM

4.2 Curriculum Requirements - Each school shall submit with its application a detailed course outline-refer to page 9-11 of regulations.

COMPETENCY BASED PROGRAM

4.6 Hours required, exception:

Curriculum and completion requirements shall be offered over a minimum of 1500 clock hours unless the school presents evidence satisfactory to the Board that the school:

4.6.1 Will measure for competency, for each student, tasks specified in Sections 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.2.8, 4.2.9 and 4.2.10; and

4.6.2 Inform each student of progress in achieving competency of tasks taught; and

4.6.3 Record the number of clock hours of instruction for each student.

If your school is seeking approval to offer a Competency Based curriculum you must submit evidence of compliance with the above regulation. This may take the form of:

1. Identify the competencies a worker on the job must have.
2. Students informed prior to instruction, of the competencies or tasks they are expected to master.
3. The tests used to evaluate performance be to job standards.
4. A system exists for documenting each student's performance on each task.

DEPARTMENT OF HEALTH (STATE BOARD OF)

REGISTER'S NOTICE: This regulation is excluded from Article 2 of the Administrative Process Act in accordance with § 9-6.14:4.1 C.6 of the Code of Virginia, which excludes from Article 2 Department of Health orders condemning or closing any shellfish, finfish or crustacea growing area and the shellfish, finfish or crustacea located thereon pursuant to Chapter 7 (§ 28.1-175 et seq.) of Title 28.1. The Department of Health with receive, consider and respond to peititions by any interested person at any time with respect to reconsideration or revision.

Title of Regulation: **VR 355-19-02.33. Notice and Description of Shellfish Area Condemnation Number 33, Pocomoke Sound and Pocomoke River.**

Statutory Authority: §§ 28.1-177 and 32.1-20 of the Code of Virginia.

Effective Date: March 1, 1989

Summary:

This notice defines the portions of Pocomoke Sound and Pocomoke River located in Virginia which do not conform to the standards of an approved shellfish growing area as set by the National Shellfish Sanitation Program (NSSP) of which Virginia is a participant. Recent evaluation by the Division of Shellfish Sanitation indicated that a portion of Pocomoke Sound exceeds the NSSP bacteriological standards. Therefore an additional 1,148 acres are hereby reclassified as condemned for the direct marketing of shellfish.

The waters in this area will be sampled on a monthly basis to assure that bacteriological water quality in the approved areas conforms to NSSP standards for such growing areas. A shoreline sanitary survey will be carried out as scheduled in order that onsite pollution sources may be found and corrected.

VR 355-19-02.33. Notice and Description of Shellfish Area Condemnation Number 33, Pocomoke Sound and Pocomoke River.

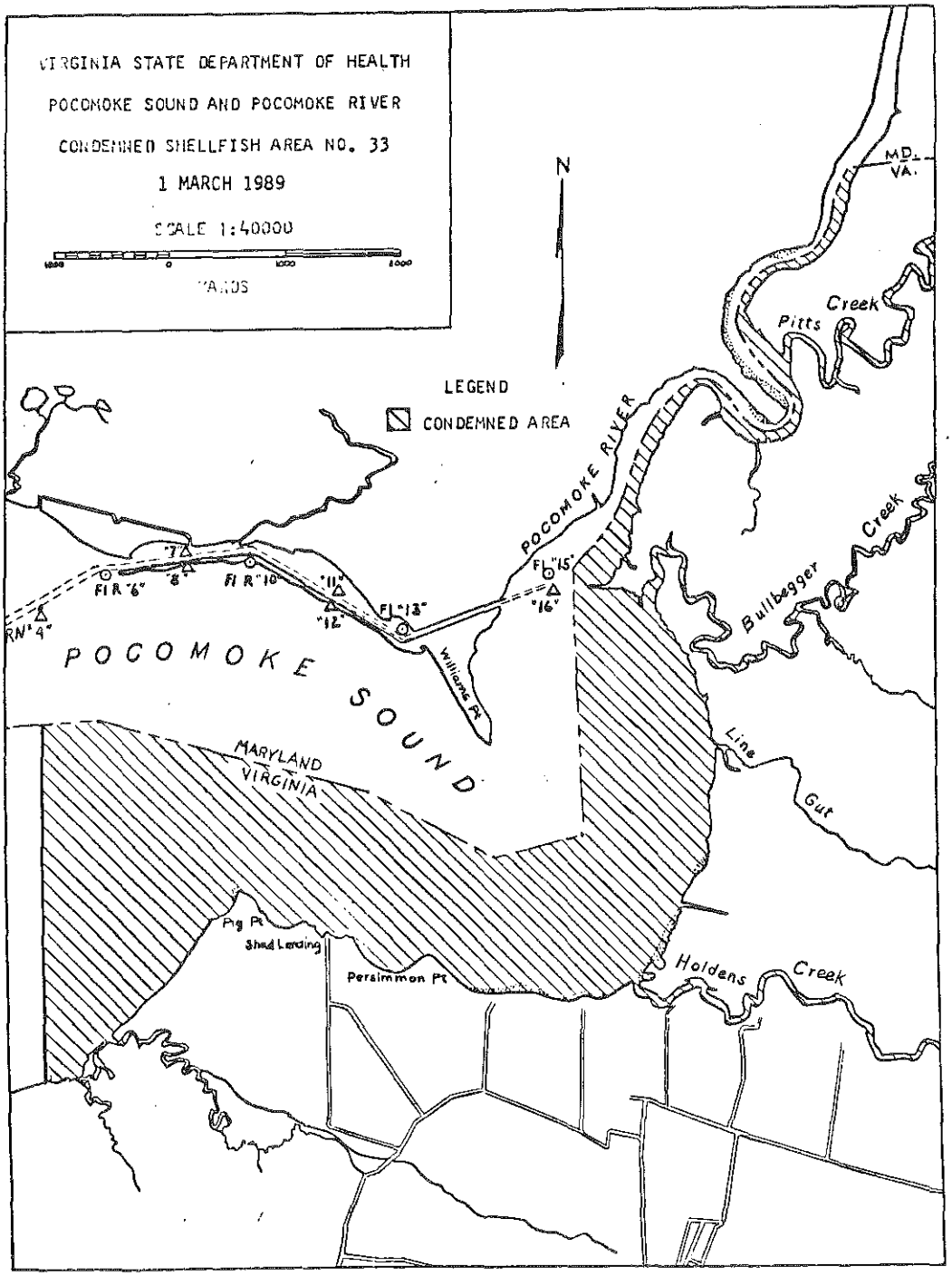
§ 1. The "Notice and Description of Shellfish Area Condemnation Number 33, Pocomoke Sound and Pocomoke River," effective May 26, 1988 (emergency regulation), is cancelled.

§ 2. Condemned Shellfish Area Number 33, Pocomoke Sound and Pocomoke River, effective March 1, 1989, is established. It shall be unlawful for any person, firm, or corporation to take shellfish from Area No. 33 for any purpose, except by permit granted by the Marine Resources Commission, as provided in Title 28.1, Chapter 7, § 28.1-179 of the Code of Virginia. The boundaries of the area are shown on map titled "Pocomoke Sound and Pocomoke River, Condemned Shellfish Area Number 33, 1 March 1989" which is a part of this notice.

§ 3. The Department of Health will receive, consider and respond to petitions by any interested person at any time with respect to reconsideration or revision of this regulation.

§ 4. Boundaries of condemned Area No. 33.

The condemned area includes all of the Virginia portion of Pocomoke Sound and Pocomoke River and their tributaries lying upstream of a line drawn due south from navigational aid R N "4" across the Virginia-Maryland boundary to the Virginia shore to the point where the Virginia-Maryland boundary joins the Virginia shore approximately three miles above the mouth of Pocomoke River.


VIRGINIA STATE DEPARTMENT OF HEALTH
POCOMOKE SOUND AND POCOMOKE RIVER
CONDEMNED SHELLFISH AREA NO. 33
1 MARCH 1989
SCALE 1:40000
YARDS
N
LEGEND
CONDEMNED AREA
MD.
VA.
Pitts Creek
POCOMOKE RIVER
Bullbegger Creek
FIR "6"
"8"
FIR "10"
"11"
"12"
FL "13"
"15"
"16"
RN "4"
POCOMOKE SOUND
Williams Pt
MARYLAND
VIRGINIA
Line Gut
Pig Pt
Shed Landing
Persimmon Pt
Holdens Creek

STATE WATER CONTROL BOARD

Title of Regulation: **VR 680-16-14. Potomac-Shenandoah River Basin Water Quality Management Plan.**

Statutory Authority: § 62.1-44.15(3) of the Code of Virginia.

Effective Date: March 1, 1989

Background:

Water Quality Management Plans set forth those measures to be taken by the State Water Control Board for reaching and maintaining applicable water quality goals both in general terms and numeric loadings for five day Biochemical Oxygen Demand (BOD5) in identified stream segments.

Section 62.1-44.15(3) of the Code of Virginia authorizes the State Water Control Board to establish water quality standards and policies for any state waters consistent with the purpose and general policy of the State Water Control Law, and to modify, amend, or cancel any such standards or policies established.

Section 62.1-44.15(13) of the Code of Virginia authorizes the establishment of policies and programs for area and basinwide water quality control and management.

Summary:

The amendments revise the allowable BOD5 loading upward from 8.4 lb/day to 84 lb/day for the MPSC's Massanutten STP and require a TKN limit of 84 lb/day. The allowable BOD5 loading would be revised upward for the SCSD's Bryce Mountain STP from 22 lb/day to 65 lb/day. Revisions to these BOD5 loading rates are necessary because more recent and improved modeling demonstrated that they were unnecessarily stringent.

The major difference between the original loading rates and the revisions is that the former were determined by desk top modeling in the early 1970's and the latter by modeling that utilized actual field data.

The revisions will maintain the water quality standards adopted by the board.

VR 680-16-14. Potomac-Shenandoah River Basin Water Quality Management Plan.

Potomac-Shenandoah River Basin Water Quality Management Plan - VR 680-16-14

Reference for Stoney Creek Sanitary District - Boyce Mountain Resort discharge to Stony Creek WQ (1-5a) and Massanutten Public Service Corporation discharge to Quail Run (1-4a) on Table 2B of the Potomac-Shenandoah River Basin Water Quality Management Plan would be amended as follows:

FACILITY NUMBER	NAME	RECOMMENDED RECEIVING STREAM	FACILITY			WASTELOAD ALLOCATION[3] lb/d BOD_5	INSTITUTIONAL ARRANGEMENT	COMPLIANCE[4] SCHEDULE
			RECOMMENDED ACTION	SIZE[1]	TREATMENT LEVEL[2]			
28	~~Boyce Mountain Resort~~ Stoney Creek Sanitary District	Stony Creek WQ (1-5a)	No further action recommended	~~0.3~~ 0.6	AST	~~22~~ 65	~~Private~~ Public	None
14	~~Massanutten~~ Massanutten Public Service Corporation	Quail Run WQ (1-4c)	No further action recommended	~~0.1~~ 1.0	AWT	~~8.4~~ 84.0[8]	Private	None

(1) Year 2000 design flow (MGD) unless otherwise noted

(2) Secondary Treatment: 24-30 mg/l BOD_5, advanced secondary treatment (AST): 11-23 mg/l BOD_5, advanced wastewater treatment (AWT): <10 mg/l BOD_5. A range is given to recognize that various waste treatment processes have different treatment efficiencies.

(3) Recommended wasteload allocation calculated using mathematical modeling based upon 7Q10 stream flows. Tiered permits may allow greater wasteloads during periods of higher stream flows. Allocations other than BOD_5 are noted by footnote.

(4) The July 1, 1983 data is a statutory deadline required by P.L. 92-500, as amended by P.L. 92-217. The timing of Construction Grant funding may result in some localities to miss this deadline.

(8) This allocation is based on a TKN loading no greater than 84 lb/day.

None of the other portions of the Plan will be affected by this amendment.

* * * * * * * *

REGISTRAR'S NOTICE: This regulation was originally proposed in 4:20 VA.R. 2073-2083 July 4, 1988. However, the State Water Control Board reproposed the regulation in 5:1 VA.R. 68-78 October 10, 1988. The regulation published October 10, 1988, replaced the one published July 4, 1988. The final regulation published below reflects changes made to the regulation published October 10, 1988. The State Water Control Board repealed existing regulations and adopted these new regulations.

Title of Regulation: **VR 680-16-16. Richmond-Crater Interim Water Quality Management Plan.**

Statutory Authority: § 62.1-44.15(3) of the Code of Virginia.

Effective Date: March 1, 1989

Summary:

The purpose of the Richmond-Crater Interim Water Quality Management Plan is to provide a management tool to assist the Commonwealth and localities in achieving and maintaining applicable water quality goals in designated segments of the James and Appomattox Rivers. The Plan establishes allowable effluent limits for the NPDES permits for 13 major discharges in the area. The Plan identifies water quality problems in the Richmond-Crater area and outlines remedial action to alleviate these problems so that desired water quality objectives can be met. The Plan includes sections entitled: Water Quality Evaluation, Waste Load Allocation, Implementation Schedule, Loan Eligibility for Facilities, Additional Pollution Controls, and Drinking Water Supply. A discussion of each section is followed by a presentation of specific actions to be taken by the State Water Control Board in implementing the Plan.

During the adoption process for this plan, four changes were made to the plan in response to public comments. For example language was added to say that ammonia allocations may be adjusted based on future data (§ 3 C). Other changes were made to § 10 and tables 3, 4, and 5.

VR 680-16-16. Richmond-Crater Interim Water Quality Management Plan.

§ 1. Preface.

A. Plan purpose.

The Richmond-Crater Interim Water Quality Management Plan has been developed in order to fulfill, as far as practicable, the requirements established in § 208 of the Clean Water Act (§ 33 U.S.C. 1251 et seq.) and the State Water Control Law. The purpose of this Plan is to provide a management tool to assist the Commonwealth and localities in achieving and maintaining applicable water quality goals in designated segments of the James and Appomattox Rivers.

The board's intent, as required by federal regulation (40 CFR 130.6), is to use the data and information contained in this Plan:

1. As input to the § 305(b) Water Quality Inventory Report, submitted every two years to the U.S. Congress and Environmental Protection Agency (EPA);

2. As input to the issuance of National Pollutant Discharge Elimination System (NPDES) permits;

3. For the assessment of municipal sewage treatment needs for the purpose of disbursing revolving loan funds.

The board's further intent is to update and amend the Plan periodically to reflect current scientific data-gathering and studies; new or revised legislation, procedures, policy and regulations; changes in area growth and development; and the results of facilities planning. federal regulation 40 CFR 130.10 requires such action and the submission of the updated Plan for EPA review and approval.

This Plan is intended to replace all previously approved water quality plans for major municipal and industrial discharges to the Upper James and Appomattox Estuaries, in Planning Districts 15 (Richmond Regional) and 19 (Crater).

B. Development and adoption of the Plan.

This Richmond-Crater Interim Water Quality Management Plan amendment was prepared by the Piedmont Regional Office of the State Water Control Board (SWCB). This document reflects planning as of March 3, 1988, and information received as a result of the public hearing process, with the official comment period ending September 6, 1988.

Appropriations by the Virginia General Assembly, and §§ 106 and 205(j) Grants from the EPA jointly funded this Plan. Public participation is ensured through the provisions of Virginia's Administrative Process Act. Adoption of this Plan by the Commonwealth consists of the following steps:

1. A meeting with a scientific advisory committee, and three meetings with the Technical Advisory Committee which consists of representatives of affected dischargers, public interest groups and governmental agencies;

2. Publication of Notice of Intended Regulatory Action;

3. Completion of the public hearing process with opportunity for public review and comments;

4. Submission to the State Water Control Board for adoption after comments from the public have been addressed;

5. Filing with the Virginia Registrar of Regulations; and

6. Submission of the state-certified Plan to the EPA.

A similar procedure would be required for any future Plan amendments.

§ 2. Water quality evaluation.

A. General goals.

The Clean Water Act established a national goal of water quality suitable for fishing and swimming by 1983, where attainable. Present general State Water Quality Standards specify water quality adequate for use as public water supply, water-based recreation, and the propagation of fish, shellfish and other aquatic life.

B. Analysis of stream segments.

For the purpose of analyzing water quality and developing treatment strategies to achieve water quality goals, the area's estuaries were divided into two stream segments: one on the James River and one on the Appomattox River. These segments are shown in Figures 1 and 2 and are listed in Table 1. Both segments are designated as "water quality limited." This means that they are not expected to meet applicable water quality standards after the application of secondary treatment (Best Practical Technology) by the dischargers.

The James River Water Quality model (JMSRV) was used to evaluate water quality in the designated stream segments. The JMSRV is a computerized, static, one-dimensional, mathematical model developed under contract with HydroQual, Inc. The model was calibrated and verified using data collected by the Water Control Board, and the Richmond Regional and Crater Planning District Commissions.

Table 1. Stream Segment Classifications - James River Basin.

Segment	Segment* Number	Mile to Mile	Classi - fication
USGS HUC02080206 James River	2-19	115.0 - 60.5	W.Q.
USGS HUC02080207 Appomattox River	2-23	30.1 - 0.0	W.Q.

* Note: A new stream segment classification for the Upper James Basin was adopted in 1981. The SWCB will renumber or realign these segments in the future to reflect these changes. This Plan covers only a portion of these segments.

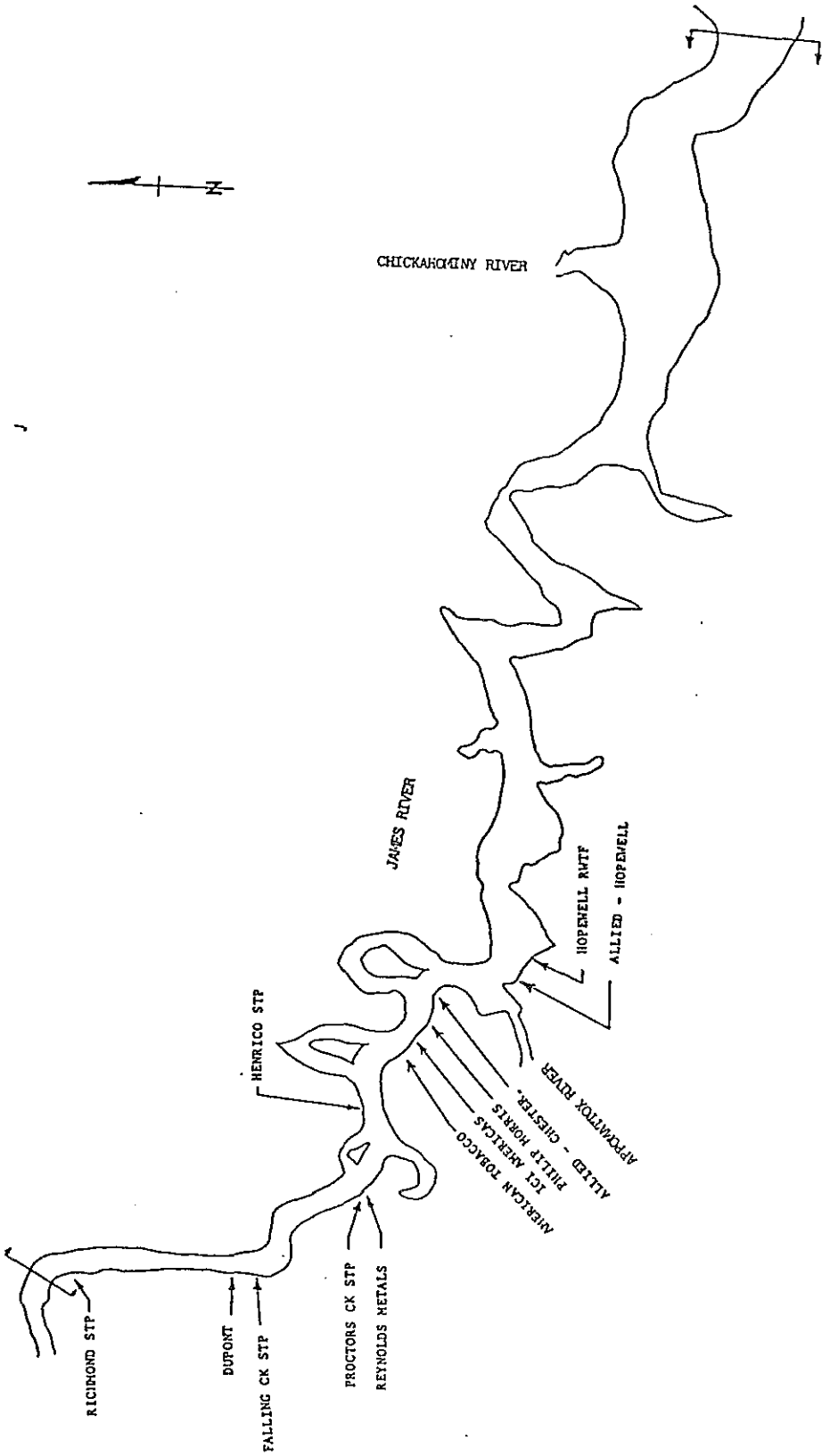


Figure 1. Upper James River Estuary and Dischargers.

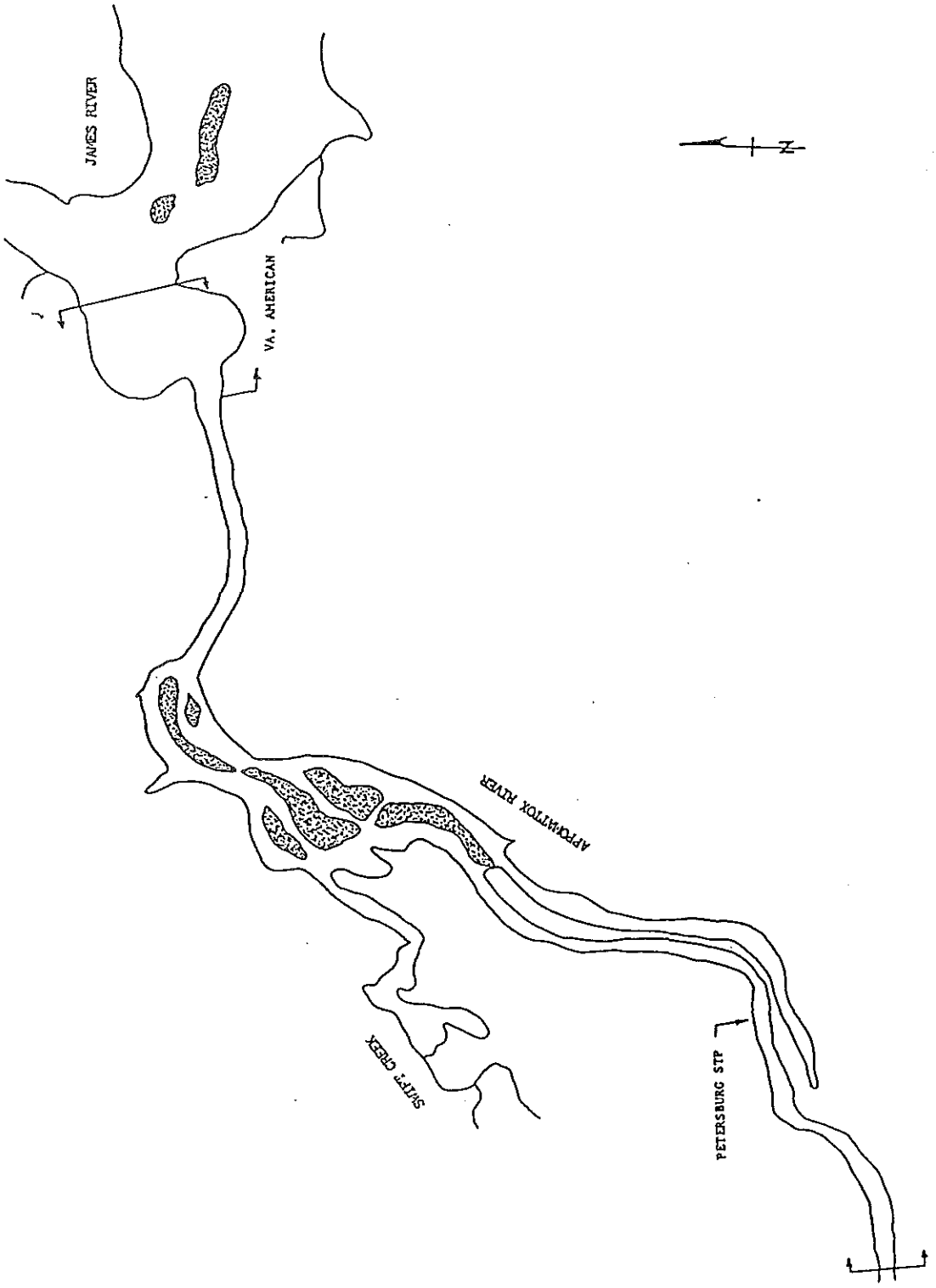


Figure 2. Appomattox River Estuary and Discharger.

§ 3. Waste load allocations.

A. General.

There are 13 major discharges to the stream segments evaluated in this Plan. All are regulated under NPDES permits issued by the Virginia Water Control Board. Current and projected future water quality impacts of these discharges were evaluated at low flow conditions (summer and winter) using the JMSRV model. Waste load allocations were determined for each discharger based upon water quality impacts predicted by the model. Tables 2, 3, 4 and 5, show the waste load allocations under current permits, and for the years 1990, 2000 and 2010 respectively.

All waste load allocations (WLAs) are considered to be the total maximum daily loads (TMDLs), since additional "load allocations" (e.g. upstream and sediment flux loads) were included in the modeling process. The permitted effluent loadings listed in Tables 3, 4, and 5 are considered to be the TMDLs for these facilities since nonpoint source loads were considered to be negligible under low flow conditions.

B. Dissolved oxygen.

The JMSRV model predicted that the state standard for instream average dissolved oxygen (5.0 mg/l) would not be violated under current permit limits. Projected discharge increases by the year 1990, however, required a reduction in allowable winter five-day carbonaceous biochemical oxygen demand (CBOD5) effluent concentrations at the Henrico, Falling Creek and Proctors Creek sewage treatment plants (STPs). Predicted instream dissolved oxygen levels at projected 1990 discharge levels indicated that the assimilative capacity of the river would be nearly fully utilized. Therefore, it was decided that CBOD5 poundage allocated to each discharge would be held constant at 1990 levels. Discharges with projected flow increases would, therefore, receive reductions in allowable CBOD5 effluent concentrations in the future (see Tables 3 through 5). Each discharge was also assigned a minimum effluent dissolved oxygen concentration.

C. Ammonia.

The JMSRV model predicted possible exceedances of instream ammonia toxicity criteria at low flow conditions with current ammonia levels. Therefore, it was necessary to allocate ammonia among the dischargers. Ammonia poundage was allocated based upon 1990 projected flows for each discharge. This poundage was held constant at that level resulting in future reductions in allowable effluent concentrations at discharges with increasing flows (see Tables 3 through 5). Those discharges that did not have an impact upon ammonia toxicity were given ammonia allocations to limit nitrogenous oxygen demand in the rivers. Ammonia allocations contained in this plan may be preempted by more stringent state or federal standards or regulations adopted in the future. [*Should future data collection and analysis indicate that ammonia allocation adjustments are appropriate due to site specific conditions (as recommended in the State Ammonia Criteria), consideration will be given to amending the plan accordingly.*]

D. Phosphorus.

A total phosphorus limit of 2 mg/l was assigned to all discharges of 1.0 million gallons per day (MGD) or greater, in accordance with Virginia's Nutrient Standard. This effluent limitation may be preempted by more stringent state or federal standards or regulations adopted in the future. The following is a list of all discharges to be permitted at 2 mg/l total phosphorus:

City of Richmond STP

E.I. DuPont - Spruance

Falling Creek STP

Proctors Creek STP

Henrico STP

American Tobacco Company

Philip Morris - Park 500

Allied - Signal, Inc. (Chesterfield Plant)

Allied - Signal, Inc. (Hopewell Plant)

Hopewell Regional WTF

Petersburg STP

Table 2. Current Permitted Waste Loads (March, 1988).

	SUMMER (June - October)						WINTER (November - May)					
	FLOW (mgd)	BOD5 (lbs/d)	BOD5 (mg/l)	NH3-N[1] (lbs/d)	NH3-N[1] (mg/l)	DO[2] (mg/l)	FLOW (mgd)	BOD5 (lbs/d)	BOD5 (mg/l)	NH3-N[1] (lbs/d)	NH3-N[1] (mg/l)	DO[2] (mg/l)
City of Richmond STP[3]	45.00	3002	8.0	-	-	-	45.00	5367	14.3	-	-	-
E.I. DuPont-Spruance	8.68	936	-	-	-	-	8.68	936	-	-	-	-
Falling Creek STP	9.00	1202	16.0	-	-	5.9	9.00	2253	30.0	-	-	5.9
Proctor's Creek STP	6.40	1601	30.0	-	-	5.9	11.80	2952	30.0	-	-	5.9
Reynolds Metals Company	0.39	138	-	7	-	-	0.39	138	-	7	-	-
Henrico STP	30.00	3005	12.0	-	-	5.9	30.00	7260	29.0	-	-	5.9
American Tobacco Company	1.94	715	-	-	-	-	1.94	716	-	-	-	-
ICI Americas, Inc.	0.20	152	-	-	-	-	0.20	152	-	-	-	-
Philip Morris - Park 500	1.50	559	-	-	-	-	1.50	557	-	-	-	-
Allied (Chesterfield)	51.00	1207	-	-	-	-	51.00	1207	-	-	-	-
Allied (Hopewell)	150.00	2500	-	-	-	-	150.00	2500	-	-	-	-
Hopewell Regional WTF	34.08	12507	44.0	-	-	4.8	34.08	12507	44.0	-	-	4.8
Petersburg STP	15.00	2804	22.4	-	-	5.0	15.00	2804	22.4	-	-	5.0
TOTAL	353.19	30328					358.59	39349				

1 NH3-N values represent ammonia as nitrogen.
2 Dissolved oxygen limits represent average minimum allowable levels.
3 Richmond STP's BOD5 is permitted as CBOD5.

Table 3. Waste Load Allocations for the Year 1990.

	SUMMER (June - October)						WINTER (November - May)				
	FLOW (mgd)	CBOD5 (lbs/d)	CBOD5 (mg/l)	NH3-N[1,3] (lbs/d)	NH3-N[1,3] (mg/l)	DO[2] (mg/l)	CBOD5 (lbs/d)	CBOD5 (mg/l)	NH3-N[1,3] (lbs/d)	NH3-N[1,3] (mg/l)	DO[2] (mg/l)
City of Richmond STP	45.00	3002	8.0	2403	6.4	5.6	5367	14.3	5707	15.2	5.6
E.I. DuPont-Spruance	11.05	948		590		4.4	948		756		2.9
Falling Creek STP	10.10	1348	16.0	539	6.4	5.9	2023	24.0	1281	15.2	5.9
Proctor's Creek STP	12.00	1602	16.0	961	9.6	5.9	2403	24.0	1402	14.0	5.9
Reynolds Metals Company	0.49	172		8		6.5	172		8		6.5
Henrico STP	30.00	3002	12.0	2403	9.6	5.6	4756	19.0	3504	14.0	5.6
American Tobacco Company	2.70	715		113		[5.8]	715		113		[5.8]
ICI Americas, Inc.	0.20	167		8		5.8	167		8		3.1
Philip Morris - Park 500	2.20	819		92		4.6	819		92		4.6
Allied (Chesterfield)	53.00	1255		442		5.7	1255		442		5.7
Allied (Hopewell)	165.00	2750		10326		6.1	2750		10326		6.1
Hopewell Regional WTF	34.07	12502	44.0	10291	36.2	4.8	12502	44.0	10291	36.2	4.8
Petersburg STP	15.00	2802	22.4	801	6.4	5.0	2802	22.4	2028	16.2	5.0
TOTAL	380.81	31084		28978			36679		35958		

1 NH3-N values represent ammonia as nitrogen.
2 Dissolved oxygen limits represent average minimum allowable levels.
[3 Allied (Hopewell) allocation may be redistributed to the Hopewell Regional WTF by VPDES permit.]

Table 4. Waste Load Allocations for the Year 2000.

		SUMMER (June - October)					WINTER (November - May)				
	FLOW (mgd)	CBOD5 (lbs/d)	CBOD5 (mg/l)	NH3-N[1,3] (lbs/d)	NH3-N[1,3] (mg/l)	DO[2] (mg/l)	CBOD5 (lbs/d)	CBOD5 (mg/l)	NH3-N[1,3] (lbs/d)	NH3-N[1,3] (mg/l)	DO[2] (mg/l)
City of Richmond STP	45.08	3002	8.0	2403	6.4	5.6	5367	14.3	5707	15.2	5.6
E.I. DuPont-Spruance	16.99	948		590		4.4	948		756		2.9
Falling Creek STP	10.10	1348	16.0	539	6.4	5.9	2023	24.0	1281	15.2	5.9
Proctor's Creek STP	16.80	1602	11.4	961	6.9	5.9	2403	17.1	1402	10.0	5.9
Reynolds Metals Company	0.78	172		13		6.5	172		13		6.5
Henrico STP	32.80	3002	11.0	2403	8.8	5.6	4756	17.4	3504	12.8	5.6
American Tobacco Company	3.00	715		113		[5.8]	715		113		[5.8]
ICI Americas, Inc.	0.20	167		8		5.8	167		8		3.1
Philip Morris - Park 500	2.90	819		92		4.6	819		92		4.6
Allied (Chesterfield)	56.00	1255		442		5.7	1255		442		5.7
Allied (Hopewell)	170.00	2750		10326		6.1	2750		10326		6.1
Hopewell Regional WTF	36.78	12502	40.7	10291	33.5	4.8	12502	40.7	10291	33.5	4.8
Petersburg STP	15.00	2802	22.4	801	6.4	5.0	2802	22.4	2028	16.2	5.0
TOTAL	406.43	31084		28982			36679		35963		

1 NH3-N values represent ammonia as nitrogen.
2 Dissolved oxygen limits represent average minimum allowable levels.
[3 Allied (Hopewell) allocation may be redistributed to the Hopewell Regional WTF by VPDES permit.]

Table 5. Waste Load Allocations for the Year 2010.

		SUMMER (June - October)					WINTER (November - May)				
	FLOW (mgd)	CBOD5 (lbs/d)	CBOD5 (mg/l)	NH3-N[1,3] (lbs/d)	NH3-N[1,3] (mg/l)	DO[2] (mg/l)	CBOD5 (lbs/d)	CBOD5 (mg/l)	NH3-N[1,3] (lbs/d)	NH3-N[1,3] (mg/l)	DO[2] (mg/l)
City of Richmond STP	45.86	3002	7.8	2403	6.3	5.6	5367	14.0	5707	14.9	5.6
E.I. DuPont-Spruance	16.99	948		590		4.4	948		756		2.9
Falling Creek STP	10.10	1348	16.0	539	6.4	5.9	2023	24.0	1281	15.2	5.9
Proctor's Creek STP	24.00	1602	8.0	961	4.8	5.9	2403	12.0	1402	7.0	5.9
Reynolds Metals Company	0.78	172		13		6.5	172		13		6.5
Henrico STP	38.07	3002	9.5	2403	7.6	5.6	4756	15.0	3504	11.0	5.6
American Tobacco Company	3.00	715		113		[5.8]	715		113		[5.8]
ICI Americas, Inc.	0.20	167		8		5.8	167		8		3.1
Philip Morris - Park 500	2.90	819		92		4.6	819		92		4.6
Allied (Chesterfield)	56.00	1255		442		5.7	1255		442		5.7
Allied (Hopewell)	180.00	2750		10326		6.1	2750		10326		6.1
Hopewell Regional WTF	39.61	12502	37.8	10291	31.1	4.8	12502	37.8	10291	31.1	4.8
Petersburg STP	15.00	2802	22.4	801	6.4	5.0	2802	22.4	2028	16.2	5.0
TOTAL	432.51	31084		28982			36679		35963		

1 NH3-N values represent ammonia as nitrogen.
2 Dissolved oxygen limits represent average minimum allowable levels.
[3 Allied (Hopewell) allocation may be redistributed to the Hopewell Regional WTF by VPDES permit.]

E. Additional effluent limits.

Permit limits for other pollutants, including fecal coliform, are established for each individual facility in order to maintain stream standards established by Virginia's Water Quality Standards. Discharges within 15 miles upstream or one tidal cycle downstream of a water supply intake are also required to disinfect and achieve a mean count in the effluent equal to or less than 200 fecal coliform per 100 milliliters (ml). Usually, a facility which adequately disinfects its effluent with chlorine will achieve this standard, and therefore does not need to have a permit limit for fecal coliforms. Facilities' plans and specifications are reviewed on an individual basis to determine if the facility provides adequate disinfection. The Henrico STP is the only major facility with a sanitary discharge which does not use chlorination for disinfection. A fecal limit with a monthly average of 200 per 100 ml will therefore be assigned to this facility.

§ 4. Other permitted facilities.

There are numerous minor discharges to the stream segments or their tributaries which are also regulated under NPDES permits, but are not directly addressed by this Plan. Since their impact on water quality is negligible when compared to the major facilities, their actual discharges are not included in this waste load allocation. However, the combined effects of these small discharges were included in the background conditions of the segments.

These facilities include small industries, subdivisions, trailer parks, single family homes, and point source stormwater discharges. Permit limits for these facilities are established so that stream standards are met as described in Virginia's Water Quality Standards. These facilities will be addressed in the new Middle James Water Quality Management Plan.

§ 5. Implementation schedule.

Compliance schedules for the new allocations will be established when permits are reopened. This will occur as soon as practicable after adoption of this plan. Schedules for facilities' compliance with limits established by the Plan will be coordinated with those required under the water quality standard for nutrient enriched waters.

Facilities will be given up to three years to meet new permit limits, as outlined in the nutrient standard. Facilities which install nitrogen removal will be granted an additional year for compliance. Any schedules imposed by toxics management programs or other regulations will be taken into consideration in developing compliance schedules for individual permits.

The waste treatment levels listed in Tables 3 through 5 represent final effluent limits. Some facilities may operate under interim treatment limits of secondary/best practical treatment (BPT) or better while upgrading to meet those final limits.

Flow figures presented in this Plan are only projections and hence may increase due to unanticipated population or industrial growth. Facilities' schedules may therefore be revised under the SWCBs "Policy for Sewage Treatment Plant Loadings," which was adopted in 1971. This policy allows the SWCB to require owners of sewage treatment works to (i) provide analyses of projected loadings and proposed plans to increase treatment works capacity, and (ii) terminate the issuance of permits which allow start of construction on projects in the affected area, when the average influent flow to the treatment works reaches 95% of approved design capacity for each of three consecutive months, or (iii) both conditions (i) and (ii).

§ 6. Board actions for planning coordination.

Due to the interjurisdictional nature of water quality and water resources problems in the Upper James and Appomattox River Estuaries, it is important that the Commonwealth continue close coordination with other plans and programs while conducting water quality planning.

To insure that the needs of the Commonwealth are met, the board will:

1. Continue to actively participate in activities of the Chesapeake Bay Program;

2. Endorse innovative research and demonstration for meeting water supply needs;

3. Continue close coordination and participation in water supply studies conducted in the Richmond-Crater area by the Corps of Engineers, other agencies and the State Water Commission;

4. Maintain active representation on the policy and technical boards and committees in the ongoing areawide waste treatment management and wetlands conservation programs to assure adequate input from the Commonwealth; and

5. Use the Basin Water Quality Management Plan as a database and policy guide for the revolving loan program and for conducting review of facilities' plans.

§ 7. Economic impact.

The Plan guides the issuance of the NPDES permits for six municipal discharges and seven industrial discharges, and requires that that those permits be in compliance with the Plan. The municipal discharges are estimated to serve approximately 650,000 people in the area.

Requirements of the Plan will have a financial impact on the regulated facilities. Economic costs will be borne by the entities in the area, with some financing provided through Virginia's Revolving Loan Fund. These facilities

are already examining various treatment alternatives to comply with Virginia's nutrient standard. Additional costs required by this Plan will require detailed engineering studies at each facility, since actual costs will vary based on local site conditions, existing structures, and design flow.

§ 8. Loan eligibility for facilities.

Localities requiring improvements to their collection or treatment systems may submit applications for state loan funds for planning, design or construction costs. All loan applicants shall be identified and placed on Virginia's Potential Loan Eligibility List. Table 6 identifies the eligible publicly owned treatment works (POTWs) in this Plan that can be considered for a loan in the 1987-88 Fiscal Year.

Once determined eligible for loan assistance, loan applications are solicited from all POTWs on the list. The applications received are ranked and rated in accordance with the board's "Yearly Loan Distribution Criteria." For details regarding Virginia's Revolving Loan Fund, consult the Revolving Loan Fund Program Design Manual dated December 1, 1987, Virginia's Intended Use Plan for its available 87/88 funds, and Procedural Guidelines for Virginia Revolving Loan Fund Recipients, also dated December 1, 1987.

New loan requests generated by requirements of this Plan will be reflected in future loan eligibility lists.

Table 6. Potential Loan Eligibility List (December, 1987).

POINTS	APPLICANT	PROJECT	NPDES #	NMP	DESCRIPTION	REFI-NANCING	LOAN NEEDS
377.4	City of Hopewell	STP Upgrade	VA0066630	No	II		12,000,000
346.2	City of Richmond	STP Upgrade	VA0063177	Yes	II	Yes	50,000,000
346.2	City of Richmond	CSO Correction	VA0063177	No	V		50,000,000
276.0	City of Petersburg	STP Expansion, I/I Abatement	VA0025437	Yes	I,IIIA/B	Yes	2,000,000
253.5	County of Goochland	Sewer Extension		No	IVA/B		900,000
208.4	County of Chesterfield	I/I Abatement		No	IIIB,IVB		31,750,000
208.4	County of Chesterfield	Proctors Creek Expansion	VA0060194	No	I		24,000,000
178.4	County of Chesterfield	Sewer Extension		No	IVA	Yes	1,600,000
177.4	City of Hopewell	I/I Abatement		No	IIIA/B,IVA/B		2,800,000
145.9	County of Prince George	Sewer Extension		No	IVA		1,100,000

Legend for Need Category
I - Secondary Treatment
II - Advanced Treatment
IIIA - I/I Abatement
IIIB - Sewer Rehabilitation
IVA - Collector Sewers
IVB - Interceptor Sewers
V - CSO Correction

§ 9. Additional pollution controls.

A. Board actions for controlling point source discharges.

The planning, design, and operation of future facilities must assure that applicable water quality goals and standards are not violated. The following board actions are designed to achieve this goal:

1. Utilization of this Plan as a policy guide in making decisions regarding wastewater discharges in the area;

2. Continued issuance of NPDES discharge permits which contain effluent limitations and issuance of compliance schedules compatible with area Water Quality Management Plan recommendations;

3. Solicitation of loan applications for the Revolving Loan Program for wastewater treatment projects;

4. Issuance of No-Discharge Certificates for proposed no-discharge systems;

5. Encouragement of projects which employ innovative or alternative wastewater treatment techniques such as holding ponds and evapotranspiration beds, where costs and site conditions render such systems suitable;

6. Incorporation of water conservation assumptions in wastewater treatment planning;

7. Continued issuance of Certificates to Operate (CTOs), which require the preparation of operation and maintenance manuals and sludge management plans;

8. Continuance of waste treatment plant operator training through the Operator and Management Assistance Section activities;

9. Continuance of recently developed compliance monitoring, inspection and enforcement programs;

10. Continuance of a toxic management program which assures that toxic constituents of wastewater discharge will be monitored and controlled in accordance with state and federal regulations; and

11. Continuance of agency water quality monitoring programs.

B. Board actions for controlling nonpoint source discharges.

The Clean Water Act of 1977 (P.L. 92-500), § 208, requires the development of a statewide process to identify and control, to the extent feasible, nonpoint sources of pollution. A most significant element of Virginia's statewide nonpoint source management is the development of "Best Management Practices (BMP) Handbooks" for the various categories of nonpoint source pollution. Each handbook describes those practices which are determined to be the most effective, practicable means of preventing or reducing the amount of nonpoint source pollutants entering a watercourse. BMP Handbooks have been written and adopted by the SWCB for agriculture, forestry urban areas, hydrologic modifications and sources affecting ground water. A management handbook has also been adopted by the board which describes procedures and delineates responsibilities for the voluntary implementation of nonpoint source controls, and for reporting to EPA the progress being made in BMP implementation. This handbook was unconditionally approved by EPA in August 1981 as the outline of the nonregulatory nonpoint source pollution abatement program for the Commonwealth of Virginia. A regulatory program may be required of the Commonwealth by EPA.

Primary responsibility for nonpoint source pollution control now rests with the Department of Conservation and Historic Resources, Division of Soil and Water Conservation. Nonpoint source studies conducted earlier for the board are listed in the reference section.

The Water Control Board remains responsible for discharges from urban storm sewer systems and will respond as appropriate to federal regulations regarding such systems. The primary storm sewer system affecting the James River Estuary is the Richmond combined sewer system which frequently overflows during wet weather conditions. The Water Control Board is addressing this problem in the Richmond STP's NPDES permit. Other point source surface water discharges do not contribute significant BOD to the two segments in this Plan.

The NPDES permit issued to the City of Richmond requires that combined sewer overflow (CSO) loadings be addressed. This study is scheduled to be concluded by October 1, 1988; it will address fecal coliform as well as minimum dissolved oxygen levels. If the study does not adequately address reasonable solutions to CSO inputs, the plan will be amended to implement appropriate controls.

C. Board actions for controlling groundwater pollution.

A Ground Water Protection Steering Committee was formed in 1985 to develop a Ground Water Protection Strategy for Virginia. The committee, chaired by the State Water Control Board, consisted of representatives from all state agencies with ground water related programs. The steering committee spent a year in studying how Virginia has protected its ground water in the past and what more needs to be done. The findings of the committee indicate that Virginia's laws are as strong as any in the country in providing statutory protection for ground water; however, a coordinated effort is needed to carry out ground water protection policies to protect this valuable resource.

The strategy is regarded as a first step in a continuing effort to protect the ground water. It points out the need

to anticipate and prevent ground water contamination whenever possible because of tremendous cost in human health and dollars when contamination occurs. It also recognizes the need to consider ground water protection in conjuction with surface water, soils, and all other environmental media protection; shifting pollution problems from one medium to another is no longer an option. Some of the strategy recommendations are already adopted by the state agencies. Other recommendations will require General Assembly action, and some call for substantial financial investment.

Virginia Ground Water Protection Strategy, published in May 1987, is a document which outlines the Commonwealth's ground water protection policies, programs and priorities. It identifies the state laws and policies that protect ground water, identifies the potential sources of contamination and how to deal with them. Various state agency programs with potential ground water impacts are summarized in this document. It also identifies local government activities with ground water impact and recommends the role of local government in protecting the ground water resources.

D. Board actions for controlling dredge and fill operations.

Two dredged channels in the James River are maintained by the Corps of Engineers for navigation purposes. A channel 25 feet deep is maintained between Hopewell and the Deep Water Terminal at Richmond, and a channel 18 feet deep is maintained between the Deep Water Terminal and the Richmond Lock. Dredging and fill programs are controlled through the combined programs of the SWCBs 401 Certificate and the Corps of Engineers' 404 Certificate programs.

§ 10. Drinking water supply.

The Appomattox River Estuary serves as a public water supply source, since the Virginia American Water Company withdraws water to supply the Hopewell area. Since the withdrawal point is near the confluence with the James River Estuary, some of its water is included in the water withdrawal.

In 1986 (October 10, 1986, letter to Richard N. Burton, Executive Director, SWCB), the Virginia Department of Health, which has jurisdiction over the treatment of drinking water, assessed the potential impacts on this withdrawal from municipal dischargers. Their position at that time was that the raw water was treatable and should continue to be treatable in the future.

No other public water supply sources are in the study area.

The SWCB recently published a series of statewide water supply basin plans which detail water use systems and withdrawals. The basin plans also include projected water demands through the year 2030. Both segments in this Plan are addressed by the James Water Supply Plan.

The Corps of Engineers also examined intrabasin transfer of water from the James River above Richmond to the Chickahominy River as a water supply alternative for the Newport News water supply system. [~~*The Corps also listed interbasin transfer from the Appomattox River to Lake Gaston as a possible, however not recommended, alternative.*~~]

§ 11. References.

A. Technical work and public participation information for this Plan are documented in two support documents:

1. Richmond-Crater Interim Water Quality Management Plan Technical Support Information. March 1988, Virginia State Water Control Board.

2. Richmond-Crater Interim Water Quality Management Plan Public Participation Information. March 1988, Virginia State Water Control Board.

B. Other relevant information is addressed in the following documents:

1. James Water Supply Plan. Planning Bulletin No. 337, March 1988, Virginia State Water Control Board.

2. Richmond-Crater 208 IWQMP Residual Waste Management Plan: Final Report. December 1982, Richmond Regional and Crater Planning District Commissions, Prepared for the Virginia State Water Control Board.

3. Nonpoint Source Assessment and Control Needs: Final Report. No. UVA/530213/CE82/102, December 1982, Shaw L. Yu, Ph.D., Submitted to Virginia State Water Control Board.

4. Upper James River Estuary Nonpoint Source Pollution Assessment Study. May 1987, Richmond Regional Planning District Commission, Prepared for the Virginia Water Control Board.

5. Virginia Ground Water Protection Strategy. May 1987, Virginia State Water Control Board.

6. Water Quality Standards. Effective November 1987, Virginia State Water Control Board.

7. Water Supply Study: Hampton, Roads, Virginia. December 1984, Department of the Army, Corps of Engineers, Norfolk, Va.

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Title of Regulation: **VR 680-21-08. River Basin Section Tables - Water Quality Standards.**

Statutory Authority: § 62.1-44.15(3) of the Code of Virginia.

Effective Date: March 1, 1989

Background:

Water quality standards and criteria consist of narrative statements that describe water quality requirements in general terms and numerical limits for specific physical, chemical and biological characteristics of water. These statements and limits describe water quality necessary for reasonable, beneficial water uses such as swimming, propagation and growth of aquatic life, and domestic water supply.

Summary:

These amendments classify the unnamed tributary to Cascades Creek, § 12, James River Basin (Upper) as natural trout water and change the designation of Beaver Creek, § 4, Holston River Subbasin, from natural trout water to put-and-take trout water. These amendments were adopted in response to recommendations from the Department of Game and Inland Fisheries.

VR 680-21-08. River Basin Section Tables - Water Quality Standards.

VR 680-21-08 RIVER BASIN SECTION TABLES

VR 680-21-08.8 JAMES RIVER BASIN (UPPER)

SEC.	SECTION DESCRIPTION	CLASS SEC.	SP.STDS.
	Natural Trout Waters in Section 12	VI	
12	*Unnamed tributary to Cascades Creek (Bath County) from its confluence to its headwaters.*		*ii*

VR 680-21-08.16 TENNESSEE AND BIG SANDY RIVER BASINS
Holston River Subbasin

SEC.	SECTION DESCRIPTION	CLASS SEC.	SP.STDS.
	Put and Take Trout Waters in Section 4	V	
4	*Beaver Creek (Washington County) and its tributaries from the flood control dam (near Route 11) to their headwaters.*		*vi*
	~~Natural Trout Waters in Section 4~~	~~VI~~	
~~4~~	~~Beaver Creek (Washington County) and its tributaries from the flood control dam (near Route 11) to their headwaters.~~		~~vi**~~

DEPARTMENT OF HEALTH (STATE BOARD OF)

Title of Regulation: **Notice and Description of Shellfish Area Condemnation Number 40A, York River.**

Statutory Authority: §§ 28.1-177 and 32.1-20 of the Code of Virginia.

Effective Dates: December 30, 1988 through December 29, 1989

SUMMARY

Nature of Emergency

On December 23, 1988, the Division of Shellfish Sanitation (DSS), Virginia State Health Department, was notified by York County Utilities of a ruptured force main on the headwaters of Yorktown Creek. It was estimated that approximately 100,000 gallons of sewage had been bypassed over a period of two days.

Since the sewage was discharged into the headwaters of Yorktown Creek, it is reasonable to assume that the sewage continues to discharge from the creek into the York River.

Special bacteriological sampling was instituted by DSS on December 27 and will continue until water quality conforms to the standards for an approved growing area.

Necessity for Action

Virginia is a participant in the National Shellfish Sanitation Program (NSSP). The NSSP determines the shellfish control requirements that must be carried out in order for a state's shellfish industry to ship its products in interstate commerce. The proper classification of shellfish growing areas relative to their safety for direct marketing, along with a strong enforcement program to prevent harvesting from those areas that are contaminated, is an essential component of the NSSP. Shellfish areas that fail to meet established requirements must be condemned and violators rigorously prosecuted. Since shellfish will bioaccumulate contaminants such as bacteria, viruses, heavy metals, radionuclides, pesticides, and herbicides, and are often eaten raw, condemnations are established around all actual or potential pollution sources in order to prevent contaminants from reaching adjacent approved shellfish growing areas. Should an accident occur, ordinarily approved shellfish growing areas must be restricted for direct harvesting for as long as the effects of the contamination are present. The marketing of shellfish from areas subject to contamination from sewage poses a severe threat to the public health.

Experience has shown that a condemnation of this size for a sewage spill of this magnitude will adequately protect the public's health from sewage contamination in shellfish. A larger condemned area downstream from the spill is needed than in the upstream direction, because the predominant flow is in the ebb tide direction.

Notice and Description of Shellfish Area Condemnation Number 40A, York River.

1. Pursuant to §§ 28.1-178, 32.1-13, 32.1-20 and 9-6.14:4.1 C5, Code of Virginia, an emergency closure on the York River is hereby established. It shall be unlawful for any person, firm, or corporation to take shellfish from this area for any purpose except by permit granted by the Marine Resources Commission, as provided in Title 28.1, Chapter 7, Section 28.1-179, Code of Virginia. The boundaries of this area are shown on map titled "York River, Condemned Shellfish Area Number 40A, Emergency Closure" which is a part of this notice.

2. Because the area described below has been subjected to untreated sewage and is likely to be polluted and is not a safe area from which to take shellfish for direct marketing, and because shellfish exist in such area, an emergency exists and the immediate promulgation of this regulation is needed to protect the public health.

3. The Department of Health will receive, consider and respond to petitions by any interested person at any time with respect to reconsideration or revision of this emergency regulation. In addition, the Department of Health has initiated a sampling program, and will reconsider reopening the area closed by this regulation once the area has been shown to meet the guidelines for an approved shellfish harvesting area.

BOUNDARIES OF EMERGENCY CLOSURE

The emergency closure includes that portion of the York River in the vicinity of Yorktown and connecting to the presently condemned shellfish areas No. 40 and No. 6. This area is bounded by a line beginning on the shore approximately 1500 feet downstream of the larger downstream pier of the U.S. Naval Weapons Station; thence from this point parallel to the pier to an extended line downstream from the southeast end of the pier (southeast corner of Condemned Shellfish Area No. 40); thence downstream approximately 1230 yards southeast to marker "A"; thence downstream to the northwest corner of the old steamboat dock at Yorktown; thence downstream to the northwest corner of the U.S. Coast Guard Reserve Training Center Pier (Condemned Shellfish Area No. 6); thence along the pier to the shoreline; thence upstream along the shoreline, including all of Yorktown Creek, to the point of beginning.

Recommended by: /s/ Eric H. Bartsch
for Director, Division of Shellfish Sanitation
Date: December 28, 1988

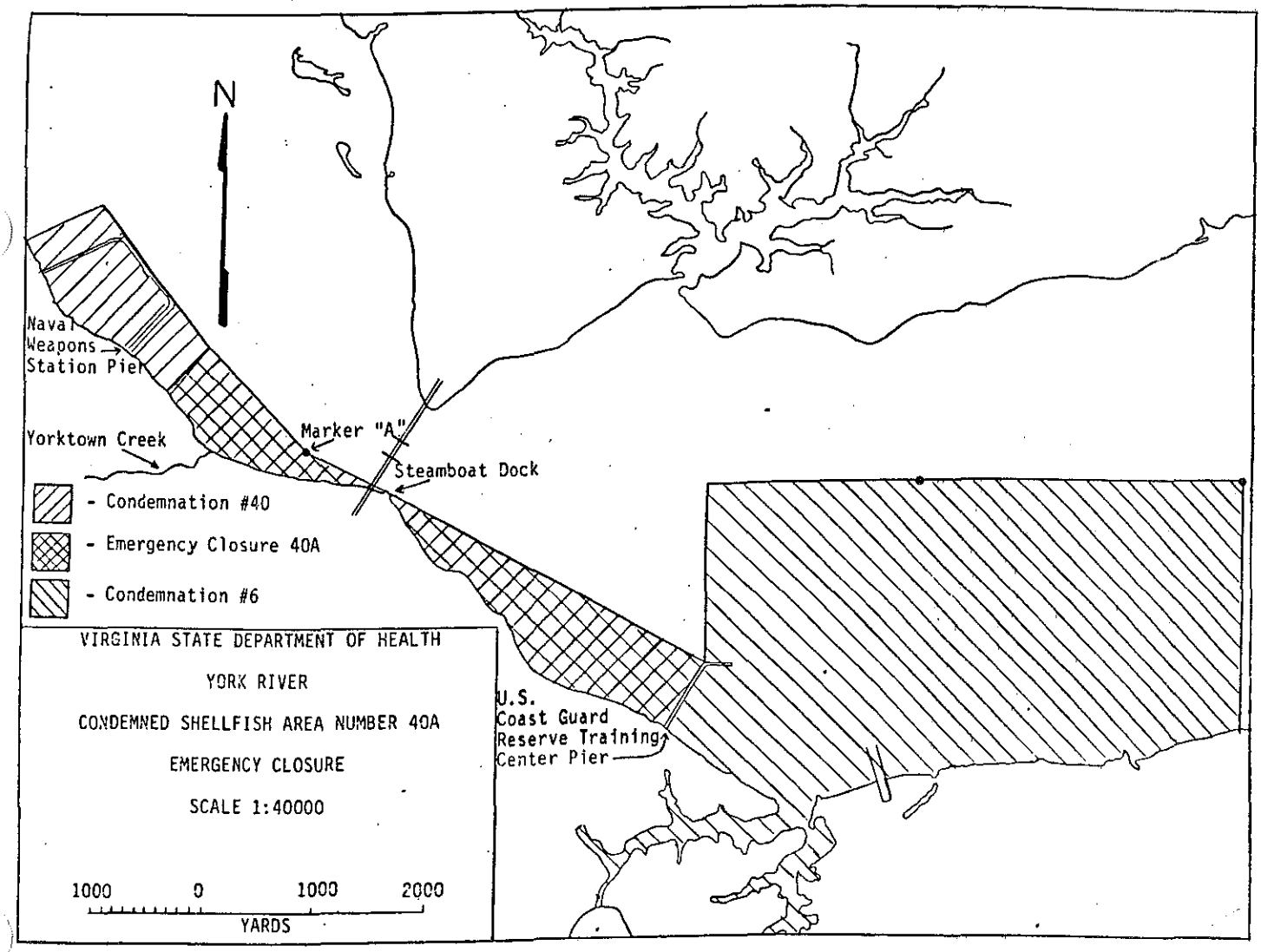
Approved by: /s/ Robert B. Stroube, M.D.

for State Health Commissioner
Date: December 28, 1988
[Signed Pursuant to Authority
Vested in Deputy Health Commissioner
By § 32.1-22; Code of Virginia]

Concur: /s/ Maston T. Jacks for Eva S. Teig
Secretary of Health and Human Resources
Date: December 28, 1988

/s/ Gerald L. Baliles, Governor
Date: December 30, 1988

Filed: /s/ Joan W. Smith
Registrar of Regulations
Date: December 30, 1989 - 10:01 a.m.



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Title of Regulation: **Notice of Description of Shellfish Area Condemnation Number 69A, James River.**

Statutory Authority: §§ 28.1-177 and 32.1-20 of the Code of Virginia.

Effective Dates: January 6, 1989 through January 5, 1990

SUMMARY

Nature of Emergency

The Hampton Roads Sanitation District Commission Williamsburg Sewage Treatment Plan experienced two major sewage spills into the James River on December 29, 1988. Bacteriological seawater sampling has confirmed that water quality does not conform to the standards for an approved shellfish growing area.

Special bacteriological sampling was instituted by the Division of Shellfish Sanitation on January 3, 1989 and will continue on a daily basis until water quality conforms to the standards for an approved growing agea.

Necessity for Action

Virginia is a participant in the National Shellfish Sanitation Program (NSSP). The NSSP determines the shellfish control requirements that must be carried out in order for a state's shellfish industry to ship its products in interstate commerce. The proper classification of shellfish growing areas relative to their safety for direct marketing, along with a strong enforcement program to prevent harvesting from those areas that are contaminated, is an essential component of the NSSP. Shellfish areas that fail to meet established requirements must be condemned and violators rigorously prosecuted. Since shellfish will bioaccumulate contaminants such as bacteria, viruses, heavy metals, radionuclides, pesticides, and herbicides, and are often eaten raw, condemnations are established around all actual or potential pollution sources in order to prevent contaminants from reaching adjacent approved shellfish growing areas. Should an accident occur, ordinarily approved shellfish growing areas must be restricted for direct harvesting for as long as the effects of the contamination are present. The marketing of shellfish from areas subject to contamination from sewage poses a severe threat to the public health.

Experience has shown that a condemnation of this size for a sewage spill of this magnitude will adequately protect the public's health from sewage contamination in shellfish.

Recommended by: /s/ Cloyde W. Wiley, Jr.
Director, Division of Shellfish Sanitation
Date: January 5, 1989

Approved by: /s/ C. M. G. Buttery, M.D., M.P.H.
State Health Commissioner
Date: January 5, 1989

Notice and Description of Shellfish Area Condemnation Number 69A, James River.

1. Pursuant to §§ 28.1-178, 32.1-13, 32.1-20 and 9-6.14:4.1 C5, Code of Virginia, an emergency closure on the James River is hereby established. It shall be unlawful for any person, firm, or corporation to take shellfish from this area for any purpose except by permit granted by the Marine Resources Commission, as provided in Title 28.1, Chapter 7, Section 28.1-179, Code of Virginia. The boundaries of this area are shown on map titled "James River, Condemned Shellfish Area Number 69A, Emergency Closure" which is a part of this notice.

2. Because the area described below has been subjected to untreated sewage and is likely to be polluted and is not a safe area from which to take shellfish for direct marketing, and because shellfish exist in such area, an emergency exists and the immediate promulgation of this regulation is needed to protect the public health.

3. The Department of Health will receive, consider and respond to petitions by any interested person at any time with respect to reconsideration or revision of this emergency regulation. In addition, the Department of Health has initiated a sampling program, and will reconsider reopening the area closed by this regulation once the area has been shown to meet the guidelines for an approved shellfish harvesting area.

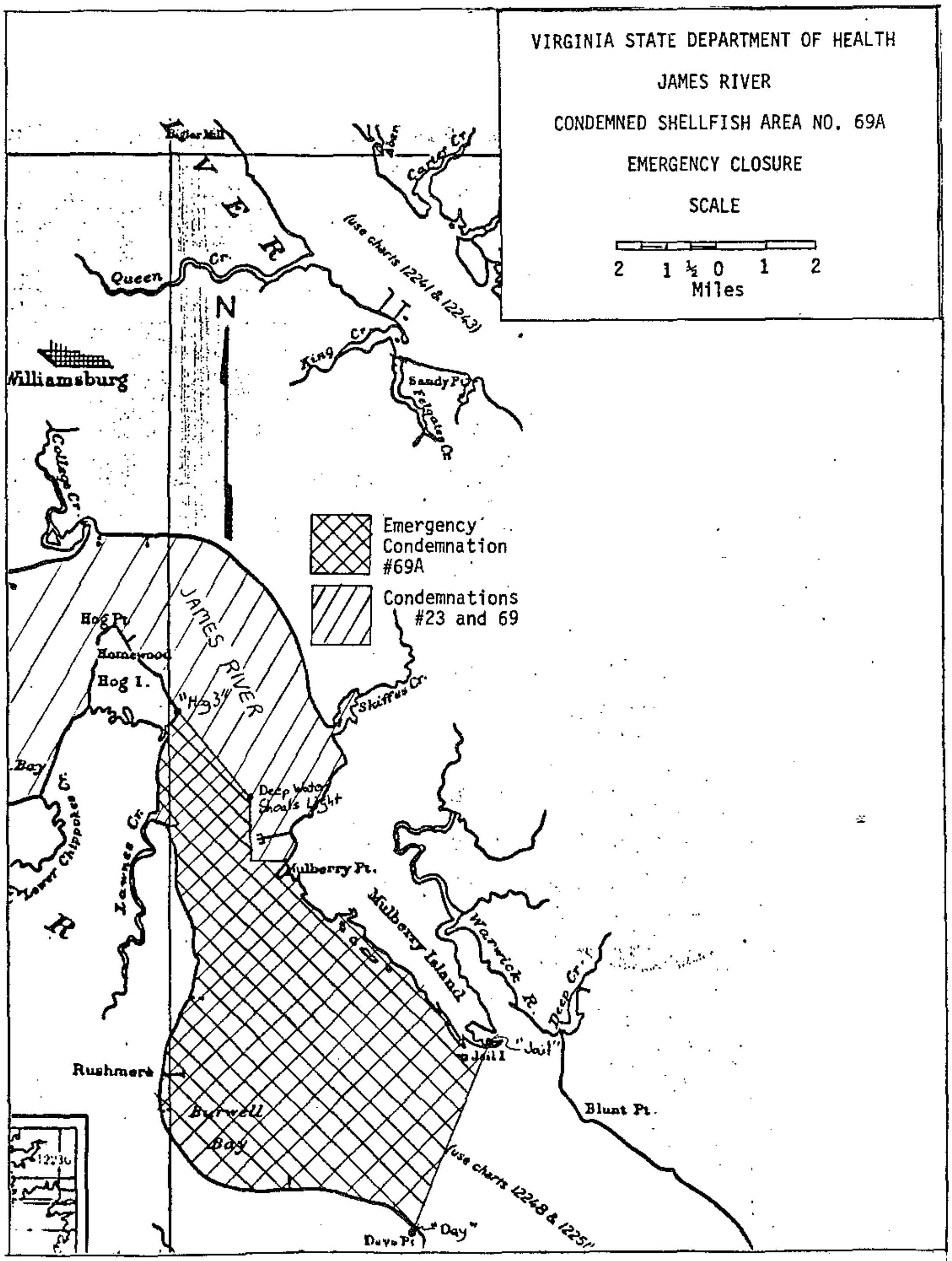
BOUNDARIES OF EMERGENCY CLOSURE

The emergency closure includes that portion of the James River and its tributaries downstream of presently condemned areas # 23 and 69 to a line drawn from Marine Resources Commission survey marker "Day" to survey marker "Jail" on the opposite shore.

Concur: /s/ Maston T. Jacks
for Eva S. Teig, Secretary of Health and Human Resources
Date: January 5, 1989

Approved: /s/ Gerald L. Baliles, Governor
Date: January 6, 1989

Filed: /s/ Joan W. Smith
Registrar of Regulations
Date: January 6, 1989 - 4:06 p.m.


VIRGINIA STATE DEPARTMENT OF HEALTH
JAMES RIVER
CONDEMNED SHELLFISH AREA NO. 69A
EMERGENCY CLOSURE
SCALE
2 1 ½ 0 1 2
Miles
Emergency Condemnation #69A
Condemnations #23 and 69
Williamsburg
Queen Cr.
King Cr.
Sandy Pt.
Felgates Cr.
College Cr.
(use charts 12241 & 12243)
JAMES RIVER
Hog Pt.
Homewood
Hog I.
"Hog 3"
Skiffes Cr.
Deep Water Shoals Light
Lower Chippokes Cr.
Lawnes Cr.
Mulberry Pt.
Mulberry Island
Warwick R.
Deep Cr.
"Jail"
Jail
Blunt Pt.
Rushmere
Burwell Bay
(use charts 12248 & 12251)
"Day"
Days Pt.

* * * * * * * *

ORDER OF THE STATE HEALTH COMMISSIONER

NOTE: This order **rescinds** the aforesaid emergency regulation.

WHEREAS, the Hampton Roads Sanitation District Commission's Williamsburg Sewage Treatment Plant experienced major sewage spills into the James River on December 29, 1988; and

WHEREAS, analysis of water from the James River collected on January 3, 1989 below the point of the sewage spill revealed significant bacteriological contamination beyond the permanently condemned portion of the river reestablished as Shellfish Area Condemnation Number 69 effective May 26, 1988 and Shellfish Area Condemnation Number 23 effective April 8, 1988; and

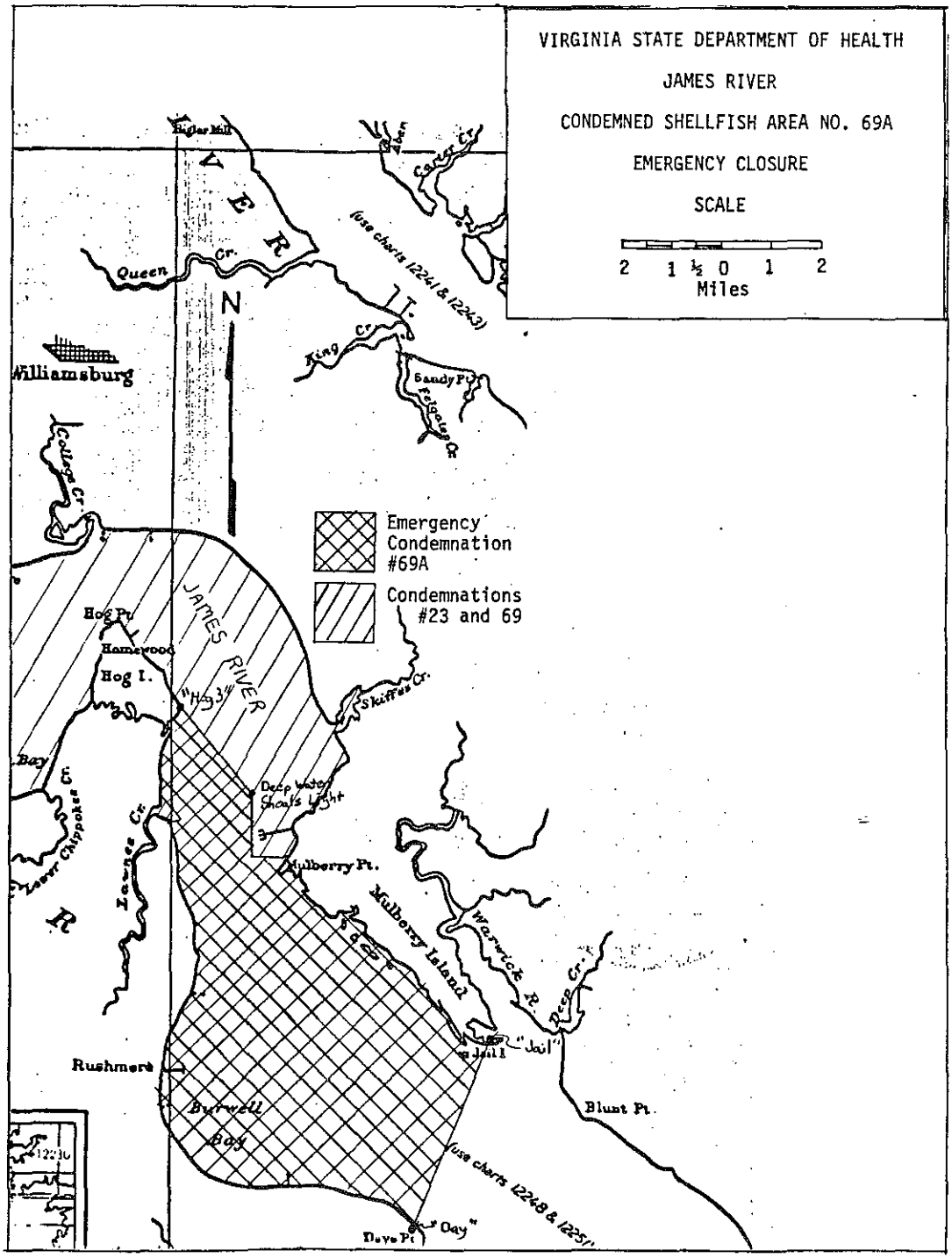
WHEREAS, the State Health Commissioner, with the Governor concurring, extended the condemnation pursuant to Virginia Code § 28.1-178 by emergency regulation establishing shellfish Area Condemnation Number 69A effective January 6, 1989; and

WHEREAS, continued sampling of the area by the State Health Department has revealed that the bacteriological levels in that portion of the James River covered by Shellfish Area Condemnation Number 69A closed by that emergency regulation have returned to acceptable levels for the harvesting of shellfish in accordance with the criteria of the National Shellfish Sanitation Program; and

WHEREAS a public health emergency condition no longer exists in the James River area covered by Shellfish Area Condemnation Number 69A and the area may be reopened; therefore, be it

ORDERED that Shellfish Area Condemnation Number 69A is hereby rescinded immediately in accordance with § 28.1-178 and § 32.1-13 of the Code of Virginia and the boundary area previously closed by Shellfish Condemnation Number 69A, as shown on the attached map, is hereby reopened

/s/ C. M. G. Buttery, M.D., M.P.H.
State Health Commissioner
Date: January 13, 1989


VIRGINIA STATE DEPARTMENT OF HEALTH
JAMES RIVER
CONDEMNED SHELLFISH AREA NO. 69A
EMERGENCY CLOSURE
SCALE
2 1 ½ 0 1 2
Miles
Emergency Condemnation #69A
Condemnations #23 and 69
JAMES RIVER
Williamsburg
Queen Cr.
King Cr.
College Cr.
Hog Pt.
Hog I.
Skiffes Cr.
Deep Water Shoals Light
Mulberry Pt.
Mulberry Island
Warwick R.
Deep Cr.
Lower Chippokes
Rushmere
Burwell Bay
Blunt Pt.
Dove Pt.
"Jail"
"Day"
use charts 12248 & 12251
use charts 12241 & 12243

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT (BOARD OF)

Title of Regulation: **VR 394-01-06. Virginia Statewide Fire Prevention Code/1987.**

Statutory Authority: §§ 27-95 and 27-97 of the Code of Virginia.

Effective Dates: January 1, 1989 through December 31, 1989

Preface:

House Bill 550 (Chapter 340, 1988 Acts of Assembly), amended § 27-97 of the Code of Virginia, transferring the responsibility to promulgate regulations governing the handling, storage, use, manufacturing and sale of explosives, ammunitions and blasting agents to the Board of Housing and Community Development, effective January 1, 1989. Prior to this date, the Department of Labor and Industry retained the responsibility to promulgate and enforce such regulations.

Pursuant to the amendment of this statute, the Board proposed new regulations for the storage, handling and use of explosives; however, public comments indicated that the proposed text was in need of further refinement. Therefore, the Board of Housing and Community Development adopted interim emergency regulations for the referenced subject to avert disruption of service until the preparation of the regulations currently under consideration can be completed.

Pursuant to the authorization of the Governor for adoption of emergency regulation and the authority of Title 27, § 27-97 of the Code of Virginia, the following regulations become effective on an emergency basis.

Duration of Emergency Regulation - This regulation shall remain in effect until December 31, 1989, or until permanent regulations are adopted under the Administrative Process Act, whichever first occurs.

Submitted by: /s/ Neal J. Barber, Director
Department of Housing and Community Development
Date: December 16, 1988

Approved by: /s/ Curry A. Roberts,
Secretary of Economic Development
Date: December 16, 1988

Approved by: /s/ Gerald L. Baliles, Governor
Date: December 23, 1988

Filed: /s/ Joan W. Smith
Registrar of Regulations
Date: December 27, 1988 - 2:14 p.m.

VR 394-01-06. Virginia Statewide Fire Prevention Code/1987.

Article 1.
Administration and Enforcement.

SECTION F-100.0. GENERAL.

F-100.1. Title: These regulations shall be known as the Virginia Statewide Fire Prevention Code. Except as otherwise indicated, Fire Prevention Code or code, shall mean the 1987 edition of the BOCA National Fire Prevention Code as herein amended.

F-100.2. Authority: The Virginia Statewide Fire Prevention Code is adopted according to regulatory authority granted the Board of Housing and Community Development by the Statewide Fire Prevention Code Act, Chapter 9 of Title 27 (§§ 27-94 through 27-101) of the Code of Virginia.

F-100.3. Adoption: The Virginia Statewide Fire Prevention Code was adopted by order of the Board of Housing and Community Development on December 14, 1987. This order was prepared according to the requirements of the Administrative Process Act. The order is maintained as part of the records of the Department of Housing and Community Development, and is available for public inspection.

F-100.4. Effective date: The Virginia Statewide Fire Prevention Code shall become effective on March 1, 1988.

F-100.5. Effect on other codes: The Virginia Statewide Fire Prevention Code shall apply to all buildings and structures as defined in the Uniform Statewide Building Code Law, Chapter 6, Title 36, Code of Virginia. The Virginia Statewide Fire Prevention Code shall supersede fire prevention regulations heretofore adopted by local government or other political subdivisions. When any provision of this code is found to be in conflict with the Uniform Statewide Building Code, OSHA, Health or other applicable laws of the Commonwealth, that provision of the Fire Prevention Code shall become invalid. Wherever the words "building code" appear it shall mean the building code in effect at the time of construction.

F-100.6. Purpose: The purpose of the Virginia Statewide Fire Prevention Code is to provide statewide standards for the optional local enforcement to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures, and the unsafe storage, handling and use of substances, materials and devices, wherever located.

SECTION F-101.0. REQUIREMENTS.

F-101.1. Adoption of model code: The following model code, as amended by sections F-101.2 and F-101.3, is hereby adopted and incorporated in the Virginia Statewide Fire Prevention Code.

- The BOCA Basic/National Fire Prevention Code/1987 Edition

Published by:

Building Officials and Code Administrators International, Inc.
4051 West Flossmoor Road
Country Club Hills, IL 60477

F-101.2. Administrative and enforcement amendments to the referenced model code: All requirements of the referenced model code and of standards referenced therein that relate to administrative and enforcement matters are deleted and replaced by Article 1 of the Virginia Statewide Fire Prevention Code.

F-101.3. Other amendments to the referenced model code: The amendments noted in Addendum 1 shall be made to the specified articles and sections of the BOCA National Fire Prevention Code/1987 Edition for use as part of this code.

F-101.4. Limitation of application of model code: No provision of the model code shall affect the manner of construction, or materials to be used in the erection, alteration, repair, or use of a building or structure.

F-101.5. Application of Uniform Statewide Building Code: The planning, design and construction of new buildings and structures to provide the necessary egress facilities, fire protection, and built-in fire protection equipment shall be controlled by the Uniform Statewide Building Code; and any alterations, additions or changes in building required by the provisions of this code which are within the scope of the Uniform Statewide Building Code shall be made in accordance therewith. Upon completion of such structures or buildings, responsibility for fire safety protection shall pass to the local fire official or State Fire Marshal.

F-101.6. Existing buildings: The Virginia Statewide Fire Prevention Code shall not impose requirements that are more restrictive than the applicable building code under which said buildings or structures were constructed. Subsequent alteration, enlargement, repair, or conversion of the occupancy classification of such buildings and structures shall be subject to the then current edition of the Uniform Statewide Building Code.

F-101.7. Exemptions for farm structures: Farm structures not used for residential purposes shall be exempt from the provisions of the Fire Prevention Code.

SECTION F-102.0. ENFORCEMENT AUTHORITY.

F-102.1. Enforcement officer: Any local government may enforce the Statewide Fire Prevention Code. The local governing body may assign responsibility for enforcement of the Statewide Fire Prevention Code to a local agency or agencies of its choice. The State Fire Marshal shall have authority to enforce the Statewide Fire Prevention Code in jurisdictions in which the local governments do not enforce the code. Upon appointment of the fire official, the Office of the State Fire Marshal shall be notified. The terms "enforcing agency" and "fire official" are intended to apply to the agency or agencies to which responsibility for enforcement has been assigned. However, the terms "building official" or "building department" apply only to the local building official or building department.

F-102.2. Qualification of local enforcing agency personnel: The local government shall establish qualifications for the fire official and his assistants, adequate to insure proper enforcement of the Statewide Fire Prevention Code.

Note: It is recommended that the fire official have at least five years of related experience. Consideration should be given for selection and maintenance of enforcing agency personnel by using certification programs offered by the Department of Housing and Community Development, Department of Fire Programs, and ETS/NFPA.

F-102.3. Inspections: The fire official may inspect all buildings, structures and premises except single family dwellings, dwelling units in two family and multi-family dwellings, and farm structures as often as may be necessary for the purpose of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with fire fighting operations, endanger life or any violations of the provisions or intent of this code or any other ordinance affecting fire safety.

F-102.4. Right of entry: Whenever necessary for the purpose of enforcing the provisions of this code, or whenever the fire official has reasonable cause to believe that there exists in any structure or upon any premises, any condition which makes such structure or premises unsafe, the fire official may enter such structure or premises at all reasonable times to inspect the same or to perform any duty imposed upon the fire official by this code; provided that if such structure or premises be occupied, the fire official shall first present proper credentials and request entry. If such entry is refused, the fire official shall have recourse to every remedy provided by law to secure entry.

F-102.5. Coordinated inspections: Whenever in the enforcement of the Statewide Fire Prevention Code or another code or ordinance, the responsibility of more than one enforcement official may be involved, it shall be their duty to coordinate their inspections and administrative orders as fully as practicable so that the owners and occupants of the structure shall not be subjected to visits by numerous inspectors nor multiple or conflicting orders. Whenever an inspector from any agency or department observes an apparent or actual violation of some provision of some law, ordinance or code of the jurisdiction, not within the inspector's authority to enforce, the inspector shall report the findings to the official having jurisdiction

in order that such official may institute the necessary corrective measures.

Note: Attention should be directed to § 36-105 of the Code of Virginia which states in part, "The building official shall coordinate all reports with inspections for compliance of the building code, from fire and health officials DELEGATED such authority, prior to issuance of an occupancy permit." (Emphasis added)

F-102.6. Fire records: The fire official shall keep a record of all fires and all facts concerning the same, including investigation of findings and statistics and information as to the cause, origin and the extent of such fires and the damage caused thereby. The fire official shall also keep records of reports of inspections, notices and orders issued and such other matters as directed by the local government. Records may be disposed of in accordance with the provisions of the Virginia Public Records Act; and, (i) after retention for 20 years in the case of arson fires, (ii) after retention for five years in nonarson fires, and (iii) after retention for three years in the case of all other reports, notices, and orders issued.

F-102.7. Administration liability: The local enforcing agency personnel shall not be personally liable for any damages sustained by any person in excess of the policy limits of errors and omissions insurance, or other equivalent insurance obtained by the locality to insure against any action that may occur to persons or property as a result of any act required or permitted in the discharge of official duties while asigned to the department as an employee. The fire official or his subordinates shall not be personally liable for costs in any action, suit or proceedings that may be instituted in pursuance of the provisions of the Statewide Fire Prevention Code as a result of any act required or permitted in the discharge of official duties while assigned to the enforcing agency as an employee, whether or not said costs are covered by insurance. Any suit instituted against any officer or employee because of an act performed in the discharge of the Statewide Fire Prevention Code may be defended by the enforcing agency's legal representative. The State Fire Marshal or his subordinates shall not be personally liable for damages or costs sustained by any person when the State Fire Marshal or his subordinates are enforcing this code as part of their official duties under Section F-102.1.

F-102.8. Rules and regulations: Local governments may adopt fire prevention regulations that are more restrictive or more extensive in scope than the Statewide Fire Prevention Code provided such regulations are not more restrictive than the Uniform Statewide Building Code and do not affect the manner of construction, or materials to be used in the erection, alteration, repair, or use of a building or structure.

F-102.9. Procedures or requirements: The local governing body may establish such procedures or requirements as may be necessary for the enforcement of the Statewide Fire Prevention Code.

F-102.10. Control of conflict of interest: The minimum standards of conduct for officials and employees of the enforcing agency shall be in accordance with the provisions of the Virginia Comprehensive Conflict of Interest Act.

SECTION F-103.0. DUTIES AND POWERS OF THE FIRE OFFICIAL.

F-103.1. General: The fire official shall enforce the provisions of the Statewide Fire Prevention Code as provided herein and as interpreted by the State Building Code Technical Review Board in accordance with § 36-118 of the Code of Virginia.

Note: Investigation of fires is governed by § 27-30 et. seq. of the Code of Virginia.

F-103.2. Notices and orders: The fire official may issue all necessary notices or orders to ensure compliance with the requirements of the Statewide Fire Prevention Code for the protection of life and property from the hazards of fire or explosion.

F-103.3. Delegation of duties and powers: The fire official may delegate duties and powers subject to any limitations imposed by the local government, but shall be responsible that any powers and duties delegated are carried out in accordance with the code.

SECTION F-104.0. PERMITS.

F-104.1. General: It shall be unlawful to engage in any business activity involving the handling, storage or use of hazardous substances, materials or devices; or to maintain, store or handle materials; to conduct processes which produce conditions hazardous to life or property; or to establish a place of assembly without first notifying the local fire official. Permits may be required, by the local fire official, according to section F-104.2.

F-104.2. Permits required: Permits shall be obtained, when required, from the local fire official. Inspection or permit fees may be levied by the local governing body in order to defray the cost of enforcement and appeals in accordance with § 27-98 of the Code of Virginia. Permits shall be available to the fire official upon request.

F-104.3. Application for permit: Application for a permit required by this code shall be made to the local fire official in such form and detail as the local fire official shall prescribe.

F-104.4. Action on application: Before a permit is issued, the local fire official or the fire official's designated representative shall make or cause to be made such inspections or tests as are necessary to assure that the use and activities for which application is made complies with the provisions of this code.

F-104.5. Conditions of permit: A permit shall constitute

permission to maintain, store or handle materials, or to conduct processes which produce conditions hazardous to life or property in accordance with the provisions of this code. Such permission shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Said permit shall remain in effect until revoked, or for such period of time specified on the permit. Permits are not transferable and any change in use, operation or tenancy shall require a new permit.

Note: For rules and regulations governing the disposal of hazardous materials contact the Virginia Department of Waste Management.

F-104.6. Approved plans: Plans approved by the building and fire officials are approved with the intent that they comply in all respects to this code. Any omissions or errors on the plans do not relieve the applicant of complying with all applicable requirements of this code.

F-104.7. Revocation of permit: The local fire official may revoke a permit or approval issued under the provisions of this code if upon inspection any violation of the code exists, or if conditions of the permit have been violated, or if there has been any false statement or misrepresentation as to material fact in the application, data or plans on which the permit or approval was based.

F-104.8. Suspension of permit: Any permit issued shall become invalid if the authorized activity is not commenced within six months after issuance of the permit, or if the authorized activity is suspended or abandoned for a period of six months after the time of commencement.

F-104.9. Payment of fees: A permit shall not be issued until the designated fees have been paid, when required.

SECTION F-105.0. APPEAL TO BOARDS OF APPEALS.

F-105.1. Local appeals: Every locality electing to enforce this code shall establish a local board of appeals as required by § 27-98 of the Code of Virginia. Appeals to the local board may be made by the person cited for violation when aggreived by any decision or interpretation of the local fire official made under the provisions of this code. The local board of appeals shall consist of at least five members who are qualified by experience and training to rule on matters pertaining to building construction and fire prevention. The local board of appeals shall be appointed by the local governing body and shall hold office in accordance with the terms of appointment. The local appeal board shall operate in accordance with the applicable provisions of the Administrative Processes Act, § 9-6.14 of the Code of Virginia. All local board hearings shall be open to the public. All resolutions or findings of the local board shall be in writing and made available for public viewing. The local board shall meet within 20 days upon receipt of application.

Appeal from the application of the code by the State Fire Marshal shall be made directly to the State Building Code Technical Review Board.

F-105.1.1. Grounds for appeal: The owner or occupant of a building may appeal a decision of the fire official to the local Board of Appeals when it is claimed that:

1. The fire official has refused to grant a modification of the provisions of the code;

2. The true intent of this code has been incorrectly interpreted;

3. The provisions of this code do not fully apply;

4. The use of a form of compliance that is equal to or better than that specified in this code has been denied.

F-105.2. Application: An application for appeal shall be submitted, in writing, to the board of appeals within seven working days upon receipt of notice or order of the fire official.

F-105.3. Decision and notification: Every action of the board on an appeal shall be by resolution. Certified copies shall be furnished to the appellant and the fire official.

F-105.4. Decision: The fire official shall take immediate action in accordance with the decision of the board.

F-105.5. Appeal to the State Building Code Technical Review Board: Any person aggrieved by a decision of the Local Board of Appeals who was a party to the appeal, or any officer or member of the governing body of the local jurisdiction, may appeal to the State Building Code Technical Review Board. Application for review shall be made to the State Building Code Technical Review Board within 15 days of receipt of the decision of the local appeals board by the aggrieved party.

F-105.6. Enforcement of decision: Upon receipt of the written decision of the State Building Code Technical Review Board, the fire official shall take immediate action in accordance with the decision.

F-105.7. Court review: Decisions of the State Building Code Technical Review Board shall be final if no appeal is made. An appeal from the decision of the State Building Code Technical Review Board may be presented to the court of the original jurisdiction in accordance with the provisions of the Administrative Process Act, Chapter 1.1:1 (§ 9-6.14:1 et seq.) of Title 9 of the Code of Virginia.

SECTION F-106.0. ORDERS TO ELIMINATE DANGEROUS OR HAZARDOUS CONDITIONS.

F-106.1. General: Whenever the fire official or the fire official's designated representative shall find in any building, structure or upon any premises dangerous or hazardous conditions or materials as follows, the fire

official shall order such dangerous conditions or materials to be removed or remedied in accordance with the provisions of this code:

1. Dangerous conditions which are liable to cause or contribute to the spread of fire in or on said premises, building or structure or endanger the occupants thereof.

2. Conditions which would interfere with the efficiency and use of any fire protection equipment.

3. Obstructions to or on fire escapes, stairs, passageways, doors or windows, liable to interfere with the egress of occupants or the operation of the fire department in case of fire.

4. Accumulations of dust or waste material in air conditioning or ventilating systems or grease in kitchen or other exhaust ducts.

5. Accumulations of grease on kitchen cooking equipment, or oil, grease or dirt upon, under or around any mechanical equipment.

6. Accumulations of rubbish, waste, paper, boxes, shavings, or other combustible materials, or excessive storage of any combustible material.

7. Hazardous conditions arising from defective or improperly used or installed electrical wiring, equipment or appliances.

8. Hazardous conditions arising from defective or improperly used or installed equipment for handling or using combustible, explosive or otherwise hazardous materials.

9. Dangerous or unlawful amounts of combustible, explosive or otherwise hazardous materials.

10. All equipment, materials, processess or operations which are in violation of the provisions and intent of this code.

F-106.2. Maintenance: The owner shall be responsible for the safe and proper maintenance of the building, structure, premises or lot at all times. In all new and existing buildings and structures, the fire protection equipment, means of egress, alarms, devices and safeguards required by the Uniform Statewide Building Code and other jurisdictional ordinances, shall be maintained in a safe and proper operating condition.

Note: Also see section F-502.6 and F-502.6.1 of this code for further information.

F-106.3. Occupant responsibility: If an occupant of a building creates conditions in violation of this code, by virtue of storage, handling and use of substances, materials, devices and appliances, the occupant shall be held responsible for the abatement of said hazardous conditions.

F-106.4. Unsafe buildings: All buildings and structures that are or shall hereafter become unsafe or deficient in adequate exit facilities or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or by reason of illegal or improper use, occupancy or maintenance or which have sustained structural damage by reason of fire, explosion, or natural disaster shall be deemed unsafe buildings or structures. A vacant building, or portion of a building, unguarded or open at door or window, shall be deemed a fire hazard and unsafe within the meaning of this code. Unsafe buildings shall be reported to the building or maintenance code official who shall take appropriate action deemed necessary under the provisions of the Uniform Statewide Building Code Volume I/New Construction Code or Volume II/Building Maintenance Code to secure abatement by repair and rehabilitation or by demolition.

F-106.5. Evacuation: When, in the opinion of the fire official, there is actual and potential danger to the occupants or those in the proximity of any building, structure or premises because of unsafe structural conditions, or inadequacy of any means of egress, the presence of explosives, explosive fumes or vapors, or the presence of toxic fumes, gases or materials, the fire official may order the immediate evacuation of said building, structure or premises. All of the occupants so notified shall immediately leave the building, structure or premises and persons shall not enter, or reenter, until authorized to do so by the fire official.

F-106.6. Unlawful continuance: It is deemed a violation of the Statewide Fire Prevention Code for any person to refuse to leave, interfere with the evacuation of the other occupants or continue any operation after having been given an evacuation order except such work as that person is directed to perform to remove a violation or unsafe condition.

F-106.7. Notice of violation: Whenever the fire official observes an apparent or actual violation of a provision of this code or ordinance under the fire official's jurisdiction, the fire official shall prepare a written notice of violation describing the condition deemed unsafe and specifying time limits for the required repairs or improvements to be made to render the building, structure or premises safe and secure. The written notice of violation of this code shall be served upon the owner, a duly authorized agent or upon the occupant or other person responsible for the conditions under violation. Such notice of violation shall be served either by delivering a copy of same to such persons by mail to the last known post office address, delivered in person or by delivering it to and leaving it in the possession of any person in charge of the premises, or in the case such person is not found upon the premises, by affixing a copy thereof, in a conspicuous place at the entrance door or avenue of access; and such procedure shall be deemed the equivalent of personal notice.

F-106.8. Issuing summons for violation: In those localities where the fire official or his designated representative has been certified in accordance with § 27-34.2 of the Code of Virginia, a summons may be issued in lieu of the above mentioned notice of violation or the provisions of section F-106.9 may be invoked.

F-106.9. Failure to correct violations: If the notice of violation is not complied with in the time specified by the fire official, the fire official shall request the legal counsel of the jurisdiction to institute the appropriate legal proceedings to restrain, correct or abate such violation or to require removal or termination of the unlawful use of the building or structure in violation of the provisions of this code or of any order or direction made pursuant thereto. The local law-enforcement agency of the jurisdiction shall be requested by the fire official to make arrests for any offense against this code or orders of the fire official affecting the immediate safety of the public when the fire official is not certified in accordance with § 27-34.2 of the Code of Virginia.

F-106.10. Penalty for violation: Violations are a Class 1 misdemeanor in accordance with § 27-100 of the Code of Virginia. Each day that a violation continues, after a service of notice as provided for in this code, shall be deemed a separate offense.

F-106.11. Correction of violation required: The imposition of the penalties herein described shall not prevent the legal officer of the jurisdiction from instituting appropriate action to restrain, correct or abate a violation; or to stop an illegal act, conduct of business or use of a building or structure in or about any premises.

ADDENDA.

ADDENDUM 1.

AMENDMENTS TO THE BOCA NATIONAL FIRE PREVENTION CODE 1987 EDITION.

As provided in section F-101.3 of the Virginia Statewide Fire Prevention Code, the amendments noted in this Addendum shall be made to the BOCA National Fire Prevention Code 1987 edition for use as part of the Virginia Statewide Fire Prevention Code.

ARTICLE 1.
ADMINISTRATION AND ENFORCEMENT.

1. Article 1, Administration and Enforcement, is deleted in its entirety and replaced with Article 1 of the Virginia Statewide Fire Prevention Code.

ARTICLE 2.
DEFINITIONS.

1. Change section F-200.3 to read:

F-200.3. Terms defined in the other codes: Where terms are not defined in this code and are defined in the Uniform Statewide Building Code, they shall have the meanings ascribed to them as in that code.

2. Change the following definitions in section F-201 General Definitions to read:

"Building code official": The officer or other designated authority charged with the administration and enforcement of the Uniform Statewide Building Code, Volume I - New Construction Code.

"Code official": The officer or other designated authority charged with the administration and enforcement of the Virginia Statewide Building Code, Volume II, Maintenance Code. (Note: When "code official" appears in the BOCA National Fire Prevention Code, it shall mean "fire official.")

"Occupancy classification": The various use groups as classified in the Uniform Statewide Building Code.

"Structure": An assembly of materials forming a construction for use including stadiums, gospel and circus tents, reviewing stands, platforms, stagings, observation towers, radio towers, water tanks, trestles, piers, wharves, swimming pools, amusement devices, storage bins, and other structures of this general nature. The word structure shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a different meaning.

3. Add these new definitions to section F-201.0 General Definitions:

"Building": A combination of any materials, whether portable or fixed, that forms a structure for use or occupancy by persons or property; provided, however, that farm buildings not used for residential purposes and frequented generally by the owner, members of his family, and farm employees shall be exempt from provisions of this code. The word building shall be construed as though followed by the words "or part or parts thereof and fixed equipment" unless the context clearly requires a different meaning. The word building includes the word structure.

"Building code": The building code in effect at the time of construction.

"Certificate of use and occupancy": The certificate issued by the code official which permits the use of a building in accordance with the approved plans and specifications and which certifies compliance with the provisions of law for the use and occupancy of the building in its several parts together with any special stipulations or conditions of the building permit. (See section 119.0 of the USBC.)

"Combustible material": A material which cannot be classified as noncombustible in accordance with that definition.

"Farm building": A structure located on a farm utilized for the storage, handling or production of agricultural, horticultural and floricultural products normally intended for sale to domestic or foreign markets and buildings used for maintenance, storage or use of animals or equipment related thereto.

"Fire official": The officer or other designated authority charged with the administration and enforcement of the Virginia Statewide Fire Prevention Code.

"Local government": Any city, county or town in this Commonwealth, or the governing body thereof.

"Night club": Means a place of assembly that provides exhibition, performance or other forms of entertainment; serves food or alcoholic beverages; and may or may not provide music and space for dancing.

ARTICLE 3.
GENERAL PRECAUTIONS AGAINST FIRE.

1. Change section F-301.1 to read:

F-301.1. General: Open burning shall be allowed in accordance with the laws and regulations set forth by the State Air Pollution Control Board, the Department of Forestry, and as regulated by the locality.

ARTICLE 4.
HAZARD ABATEMENT IN EXISTING BUILDINGS.

1. Change section F-400.1 to read:

F-400.1. Continued maintenance: All service equipment, means of egress devices and safeguards which were required by a previous statute or another code in a building or structure when erected, altered or repaired shall be maintained in good working order.

2. Delete the balance of ARTICLE 4 HAZARD ABATEMENT IN EXISTING BUILDINGS as it is covered by Volume I and Volume II of the Uniform Statewide Building Code.

ARTICLE 5.
FIRE PROTECTION SYSTEMS.

1. Add section F-509.4. Smoke Detector for the Deaf and Hearing-Impaired to read:

F-509.4. Audible and Visual Alarms: Audible and visual alarms, meeting the requirements of UL Standard 1638, and installed in accordance with NFPA/ANSI 72G, shall be provided in occupancies housing the hard of hearing, as required by § 36-99.5 of the Code of Virginia; however, all visual alarms shall provide a minimum intensity of 100 candella. Portable alarms meeting these requirements shall be acceptable.

ARTICLE 16.

OIL AND GAS PRODUCTION.

1. Delete ARTICLE 16 OIL AND GAS PRODUCTION as it is covered by the VIRGINIA OIL AND GAS ACT, Title 45, Chapter 22 of the Code of Virginia.

ARTICLE 26.
EXPLOSIVES, AMMUNITION AND BLASTING AGENTS.

1. Change Section F-2600.1 to read:

F-2600.1 Scope: The equipment, processes and operations involving the manufacture, possession, storage, sale, transportation and use of explosives and blasting agents shall comply with the applicable requirements of this code and the provisions of this article and shall be maintained in accordance with NFPA 495 and DOT 49CFR listed in Appendix A except as herein specifically exempted or where provisions of this article do not specifically cover conditions and operations. *In lieu of meeting the provisions of this article, the local fire official may deem compliance with Addendum 8 "Rules and Regulations Governing Manufacture, Storage, Handling, Use and Sale of Explosives" as meeting the requirements of this code.*

Amendments to this article which were adopted by any local government prior to January 1, 1989, may remain in effect until the expiration of these regulations.

Permits issued by the Department of Labor and Industry prior to January 1, 1989, shall remain effective until December 31, 1989.

ARTICLE 27.
FIREWORKS.

1. Change section 2700.1 to read:

F-2700.1. Scope: The manufacture, transportation, display, sale or discharge of fireworks shall comply with the requirements of Chapter 11, Title 59, of the Code of Virginia.

2. Change section F-2700.4 to read:

F-2700.4. Definition: Fireworks shall mean and include any item known as firecracker, torpedo, skyrocket, or other substance or thing, of whatever form or construction, that contains any explosive or inflammable compound or substance, and is intended, or commonly known, as fireworks and which explodes, rises into the air or travels laterally, or fires projectiles into the air. The term "fireworks" does not include auto flares, caps for pistols, pinwheels, sparklers, fountains or Pharoah's serpents provided, however, these permissible items may only be used, ignited or exploded on private property with the consent of the owner of such property.

3. Delete section F-2701.1 General.

4. Delete section F-2701.3 Exceptions.

ARTICLE 30.
LIQUEFIED PETROLEUM GASES.

1. Change section F-3000.1 to read:

F-3000.1. Scope: The equipment, processes and operation for storage, handling, transporting by tank truck or tank trailer, and utilizing LP gases for fuel purposes, and for odorization of LP gases shall comply with the Virginia Liquefied Petroleum Gas Regulations in effect at the time of construction as provided for in Chapter 7, Title 27 of the Code of Virginia.

2. Delete section F-3000.3 Record of installation:.

3. Delete section F-3000.4 Definitions:.

4. Delete section F-3001.0 Tank container system.

5. Delete section F-3002.0 Container storage.

6. Delete section F-3003.0 Use inside buildings.

7. Delete section F-3004.0 Fire safety requirements.

8. Delete section F-3005.0 Abandonment of equipment.

ADDENDUM 8.

RULES AND REGULATIONS GOVERNING MANUFACTURE, STORAGE, HANDLING, USE AND SALE OF EXPLOSIVES.

Change Preamble to read:

Preamble

House Bill 550, amended § 27-97, Code of Virginia, transferring the responsibility to promulgate regulations governing the handling, storage, use, manufacturing and sale of explosives, ammunitions and blasting agents to the Board of Housing and Community Development, effective January 1, 1989. Prior to this date, the Department of Labor and Industry retained the responsibility to promulgate and enforce such regulations.

Pursuant to the amendment of this statute, the Board proposed new regulations for the storage, handling and use of explosives; however, public comments indicated that the proposed text was in need of further refinement. Therefore, the Board of Housing and Community Development adopted interim emergency regulations for the referenced subject to avert disruption of services until the preparation of the regulations currently under consideration can be completed.

All references to the Commissioner of Labor and Industry and the Department of Labor and Industry, shall be construed to mean the local fire official or the State Fire Marshal.

REGULATIONS PERTAINING TO EXPLOSIVES.

Pursuant to § 40.1-23, Acts of 1962 Legislature, the Safety Codes Commission adopts the following regulations relating to the manufacturing, handling, storage, use, and sale of explosives or blasting agents in the Commonwealth of Virginia.

The Commissioner may grant a temporary exception to a part or parts of these rules when unusual or emergency conditions arise. The request for relief from the rules shall be in writing and include information on measures which will be taken by the user in lieu of the rule. Permanent exception from the rule shall be by appeal as provided in § 40.1-6, Code of Virginia.

I. DEFINITIONS.

1.01. "Adequately, effectively, securely" shall mean satisfactory conditions subject to determination by the Commissioner.

1.02. "Ammonium Nitrate" shall mean a chemical compound represented by the formula HN4NO3.

1.03. "Approved" shall mean acceptable to the State Commissioner of Labor and Industry. The Commissioner may recognize as "approved" safety materials, devices, machines, and equipment which have been approved, listed, or labeled as to conforming to the standards of the Underwriters Laboratories, Inc., Factory Mutuals Laboratories, the U.S. Bureau of Mines, or by any testing agency acceptable to the Commissioner.

1.04. "Artificial Barricade" shall mean an artificial mound or revetted wall of earth of a minimum thickness of three (3) feet.

1.05. "Barricade" shall mean that a building, structure, or vault containing explosives is effectually screened from another magazine, inhabited building, railway, highway, or work area, either by a natural or by an artificial barricade of such height that a straight line from the top of any sidewall of the building, structure, or vault containing explosives to the eave line of any magazine, inhibited building, or to a point twelve feet above the center of a railway, highway, or work area will pass through such intervening natural or artificial barricade.

1.06. "Blaster" shall be:

(a) able to understand and give written and oral orders

(b) in good physical condition and not be addicted to narcotics, intoxicants, or similar types of drugs

(c) qualified, by reason of training, knowledge, or experience, in the field of transporting, storing, handling, and use of explosives, and have a working knowledge of State and local laws and regulations which pertain to explosives

(d) required to furnish satisfactory evidence of competency in handling explosives and performing in a safe manner the type of blasting that will be required

(e) knowledgeable and competent in the use of each type of blasting method used

1.07. "Blasting Agent" shall mean any insensitive chemical composition or mixture of such insensitive compositions, containing no nitroglycerin or powder, which can be made to explode when initiated with an explosive primer. (40.1-23(2) Code of Virginia)

1.08. "Blasting Cap No. 8, Test" shall mean one containing two (2) grams of a mixture of eighty (80) percent mercury fulminate and twenty (20) percent potassium chlorate, or a cap of equivalent strength.

1.09. "Commissioner" shall mean the Commissioner of the Virginia Department of Labor and Industry, or his authorized representative.

1.10. "Department" shall mean the Virginia Department of Labor and Industry.

1.11. "Explosives" means any chemical compound, mechanical mixture or device the primary or common purpose of which is to function by explosion. The term includes, but is not limited to dynamite and other high explosives, black blasting powder, pellet powder, initiating explosives, blasting caps, detonators, electric blasting caps, safety fuse, fuse igniters, fuse lighters, squibs, cordeau detonant fuse, instantaneous fuse, detonating cord, igniter cord, igniters and those materials included in the list published annually in the Federal Register by the Department of the Treasury pursuant to the Organized Crime Control Act of 1970 (18 U.S. C.A. § 841 et seq.) 40.1-23(1), Code of Virginia.

(For regulatory purposes of the provisions of these rules and regulations shall not apply with respect to:

(a) Any aspect of the transportation of explosive materials via railroad, water, highway, or air which are regulated by the U.S. Department of Transportation, and agencies thereof.

(b) The use of explosive materials in medicines and medicinal agents in the forms prescribed by the official United States Pharmacopoeia, or the National Formulary.

(c) The transportation, shipment, receipt, or importation of explosive materials for delivery to any agency of the United States or to any State or political subdivision thereof.

(d) Small arms ammunition and components thereof.

(e) Black powder in quantities not to exceed twenty-five (25) pounds.

(f) The manufacture under the regulation of the military department of the United States of explosive materials for, or their distribution to or storage or possession by the military or naval services or other agencies of the United States.

(g) Arsenals, navy yards, depots, or other establishments owned by, or operated by or on behalf of, the United States.

(h) The importation and distribution of fireworks in a finished state, commonly sold at retail for personal use in compliance with State law or local ordinances.

(i) Gasoline, fertilizers, propellant actuated devices, or propellant actuated industrial tools manufactured, imported, or distributed for their intended purposes.

1.12. "Highway" shall mean all public roads, streets, avenues, alleys, community parks and squares, boulevards, bridges, and approaches thereto.

1.13. "Inhabited Building" shall mean a building regularly occupied in whole or part as habitation for human beings, or any church, schoolhouse, railway station, store, or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage, or use of explosives.

1.14. "Magazine" shall mean any building or other structure especially designed for the storage of explosives or any vault, cave, or other structure adapted to the storage of explosives, when in accordance with the requirements of this code.

1.15. "Mud Capping" shall mean the firing of a quantity of explosives on or against a rock, boulder, or other object without confining the explosives in a bore-hole.

1.16. "Natural Barricade" shall mean natural features of the ground such as hills, or timber of sufficient density that the surrounding exposures which require protection cannot be seen from the building containing explosives when the trees are bare of leaves.

1.17. "Permissible Explosives" shall mean those which have been tested and approved by the United States Bureau of Mines for blasting in gaseous and underground operations.

1.18. "Persons" shall mean any natural person, partnership,

firm, business, association, municipality, public utility, or corporation, and including any trustee, receiver, assignee, or personal representative thereof.

1.19. "Primer" shall mean that portion of an explosive charge containing a suitable detonator, which upon firing, should detonate the entire charge.

1.20. "Public" shall mean all people other than employees of any affected employer, and shall be protected under these rules by the Commissioner of Labor and Industry and by all officers empowered to enforce the criminal laws of the State.

1.21. "Railroad" shall mean any steam, diesel, electric, or other railroad which carries passengers for hire.

1.22. "Shall" shall mean a mandatory requirement.

1.23. "Should" shall mean an advisory or recommended practice recognized as satisfactory to the Department.

1.24. "Singular-Plural" shall mean words used in the singular include the plural, and the plural the singular.

1.25. "Springing" shall mean the creation of a pocket at the bottom of a borehole by the use of a moderate quantity of explosives in order that the larger quantities of explosives may be inserted therein for a primary blast.

1.26. "Vehicle" shall mean any land, air, or water conveyance used for transporting freight or merchandise.

II. COMPLIANCE.

2.01. Any person violating such rules and regulations shall be guilty of a misdemeanor. Each day of violation shall constitute a separate offense. (1962 C 537 Par. 40.1-23(d) Code of Virginia)

III. GENERAL REQUIREMENTS.

3.01. No person shall blast or carry on any blasting operation within the Commonwealth of Virginia without first taking the necessary recognized precautions for the safety and protection of the public against physical or property damage.

IV. STORAGE.

REPORT CONCERNING STORED EXPLOSIVES (See also Section IX. - Sales and Permits)

4.01. All persons contemplating the storing of explosives or having same in their possession after this code takes effect, shall, before obtaining or storing such explosives, make a report in writing, subscribed to by such person or his agent, to the Department of Labor and Industry, P.O. Box 12064, Richmond, Virginia 23241, stating the following:

(a) The capacity, type of construction, and location of the magazine, if then existing, or, in case of a new magazine or a removal of any existing magazine, the capacity, type of construction, and proposed location of such magazine.

(b) The kind of explosives that are stored or in possession, or intended to be stored or obtained, and the maximum quantity involved.

(c) The distance that such magazine is located or intended to be located from the nearest inhabited buildings, magazines, passenger railroads and public highways.

(d) An accurate inventory of magazine stocks of explosives and caps. An inventory shall be maintained at each user's local office. The inventory shall record the date, pounds on hand, pounds received, pounds issued, pounds returned, and balance on hand at all times of each brand and grade.

Note 1: No such report shall be required for the storage or use of smokeless powder and/or black rifle powder which is used by private persons for the hand loading of small arms ammunition and which is not for resale. For this purpose not more than twenty-five (25) pounds of smokeless powder or black rifle powder shall be stored without a report.

LOCATION OF MAGAZINES.

4.02. Explosives shall not be kept or stored within the Commonwealth other than in magazines of approved type as hereafter provided.

TYPES OF MAGAZINES.

4.03. Magazines in which explosives shall be stored or kept shall be of two types:

(a) Class I Magazines

(b) Class II Magazines

Magazines shall be used exclusively for the storage of blasting agents, explosives and explosive supplies and shall be equipped with approved locking devices as provided in § 4.21.

QUANTITY AND DISTANCE REQUIREMENTS.

4.04. Magazines shall be separated from inhabited buildings, passenger railways, public highways and other magazines at distances not less than those shown in the American Table of Distances for Storage of Explosives and the Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents.

4.05. When a building or magazine containing explosives is not barricaded, the distances shown in the preceding table shall be doubled.

4.06. When two or more storage magazines are located on the same property, each magazine shall comply with the minimum distances specified from inhabited buildings, railways and highways, and in addition they shall be separated from each other by not less than the distances shown for "Separation of Magazines," except that the quantity of explosives contained in cap magazines shall govern in regard to spacing of said cap magazines from magazines containing other Class A or Class B explosives.

If any two or more magazines are separated from each other by less than specified "Separation of Magazines" distance, then the total amount of explosives therein shall be treated as if stored in a single magazine.

4.07. All types of blasting caps in strengths through No. 8 cap should be rated at 1-1/2 pounds of explosives per 1,000 caps. For strengths higher than No. 8 cap, consult the manufacturer.

4.08. For quantity and distance purposes, detonating fuse up to 60 grains per foot should be calculated as equivalent to nine (9) lbs. of high explosives per one thousand (1,000) feet. Heavier cord loads should be rated proportionately.

EXISTING MAGAZINES.

4.09. Magazines, erected prior to the promulgation of these regualtions, which comply with the intent and purpose of the regulations but are not in accordance with all detailed specifications may remain at the discretion of the Department. The Department shall have the authority to compel changes necessary to comply with the regulations, or to reduce the capacity in accordance with the requirements governing construction or distance tables.

MAGAZINE CONSTRUCTION.

4.10. Magazines for the storage of Class A explosives other than black powder, blasting caps, and electric blasting caps shall be bullet-resistant, weather-resistant, fire-resistant, and ventilated sufficently to protect the explosives in the specific locality. Magazines used only for the storage of black powder and blasting agents, Class B and Class C explosives shall be weather-resistant, fire-resistant, and have ventilation. Magazines for the storage of blasting caps and electric blasting caps shall be weather-resistant, fire-resistant, and be ventilated.

Storage of water gel or slurry type explosives classified Explosives Class B and C by the Federal Department of Transportation, when contained in semi-trailer tank vehicles approved by the Federal Department of Transportation for transporting the explosives over the highways, may be stored in Virginia in the semi-trailer tank only when motor vehicle is detached and removed from the area and requirements of the American Table of Distances for Storage of Explosives and the Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents as published in the National Fire Protection Association Publication No. 495, 1968 edition, Appendix A 12, page 42, are met.

4.11. CLASS I MAGAZINES.

(a) Class I magazines are those containing more than two hundred (200) pounds of explosives.

(b) Class I magazines shall be constructed of masonry or wood or metal, or a combination of these materials and to be bullet-resistant, shall be constructed as follows:

(1) Thickness of masonry units shall be not less than eight (8) inches. Thickness of hollow masonry units shall not be less than eight (8) inches and shall have all hollow spaces filled with a dry mixture of one (1) part cement and eight (8) parts of sand or well tamped dry sand.

(2) Wood constructed walls shall have at least a six (6) inch space between interior and exterior sheathing and the space between filled with well tamped sand or dry sand cement mixture. The exterior walls, including eaves, shall be covered with not less than No. 26 gauge metal.

(3) Metal wall construction shall be not less than No. 14 gauge mild steel lined with hardwood, brick or solid masonry at least four (4) inches in thickness, or shall have at least six (6) inch sand or dry sand cement mixture between interior and exterior walls; or steel plate one quarter (1/4) inch or more in thickness, lined with two (2) inches of hardwood.

(4) Standard semi-trailer or trailer vans with standard aluminum or steel trailer wall construction are permissible, when lined as described above and ventilated.

(c) If explosives can be shot into through the roof, it shall be made bullet-resistant with four (4) inches of sand or hardwood.

(d) The door of a bullet-resistant Class I magazine shall be constructed of at least three (3) layers of seven-eights (7/8) inch matched hardwood boards and covered on the outside with a steel plate at least three-eighths (3/8) inch thick or constructed comparable to magazine walls.

(e) Materials of equivalent bullet-resistant qualities or better may be used for all of the above listed construction.

(f) All nail heads shall be counter sunk. No sparking metal shall be permitted to contact stored materials, nor shall there be any wood exposed on the exterior.

(g) Magazines shall not be located within reach of possible falling poles or towers supporting high voltage electrical circuits.

(h) The area surrounding storage magazines, for a distance of not less than twenty-five (25) feet in all directions, shall be kept free of rubbish, empty containers, dry grass and other materials of a combustible nature. Snags, trees, and similar objects that might be blown over onto the magazine shall be removed.

(i) Upon the premises on which Class I magazines are located, there shall be conspicuous signs with the words, "EXPLOSIVES - KEEP OFF," legibly printed thereon in letters not less than three (3) inches high. Such signs shall not be so located that a bullet passing through the sign will strike the magazine.

4.12. CLASS II MAGAZINES.

(a) Class II magazines shall not be used for the storage of more than two hundred (200) pounds of explosives.

(b) Class II portable magazines shall be of lined construction, such as steel plate not less than No. 14 gauge lined with soft wood not less than three (3) inches in thickness, or hardwood not less than two (2) inches in thickness, or with dry sand cement mixture or screened sand not less than six (6) inches in thickness, or with brick or solid not less than four (4) inches in thickness.

(1) The magazine shall be set so that it is level and supported on either wooden stills, bricks, or piers. Bottom of magazine shall be at least six (6) inches off the ground.

(2) Upon each end and on top of the magazine, above the side walls thereof, or upon its barricade, there shall be kept conspicuously posted at all times, a sign with the words, "MAGAZINE - EXPLOSIVES - DANGEROUS," legibly printed thereon in letters not less than three (3) inches high.

(c) Materials of equivalent bullet-resistant qualities or better may be used for all of the above listed construction.

MAGAZINE OPERATION.

4.13. Every magazine will be assigned a number which shall be clearly painted inside the door by the owner.

4.14. The floors of magazines shall be kept clean.

4.15. Electric lights, bare electric wires of any kind, and metal that may cause sparks shall be kept at least ten (10) feet away from the exterior of any magazine. This does not apply to vehicles loading or unloading explosives, explosive supplies, or blasting agents.

4.16. Only approved types of electric lanterns and flashlights may be used in a magazine.

4.17. Flammable materials such as oil, paint, carbide, and similar materials shall not be stored in a magazine.

4.18. Magazines shall not contain any sparking metal tools or other spark producing objects.

4.19. Smoking or the carrying of matches or cigarette lighters shall not be permitted in or around a magazine.

4.20. Magazine doors and covers shall be kept closed and locked with an approved locking device except when opened for transacting business.

4.21. Approved locking and hinging devices shall be of steel and shall be saw, chisel, and bullet-resistant.

4.22. Keys to the magazine shall be retained in the possession of authorized persons only.

4.23. Blasting caps or electric blasting caps shall not be stored in the same magazine with other explosives. Dynamite may be stored with black powder and blasting agents in the same magazine, providing the magazine is bullet-resistant.

4.24. Cases of dynamite shall be stored top side up. Stocks of explosives shall not be piled directly against walls.

4.25. The oldest stocks shall always be used first. Cases of explosives shall not be opened or renailed in or within fifty (50) feet of a magazine, nor shall primed cartridges be made up or kept in a magazine with other explosives.

4.26. Cases that have contained explosives shall be destroyed by burning out of doors; they shall never be burned in an incinerator, stove, or fireplace.

4.27. Empty fiberboard cases shall be destroyed by burning in a safe area.

4.28. Unexplained shortages or thefts must be reported immediately to the Chief Arson Investigator as provided in § 40.1-25.1.

§ 40.1-25.1. Reports of stolen explosives. Any person

holding a permit pursuant to the provisions of § 40.1-25 shall report to the office of the chief arson investigator for the State any theft or other unauthorized taking or disappearance of any explosives or blasting devices from their inventory. An initial verbal report shall be made within three days of the discovery thereof which shall be followed by a written report to be filed within such time, and in such form, as is specified by the chief arson investigator. Failure to comply with the provisions of this section shall constitute a misdemeanor punishable as a Class 3 misdemeanor. (1975, c. 246)

Cross reference. —As to penalty for Class 3 misdemeanors, see § 18.2-11.

V. TRANSPORTATION.

5.01. Transportation of explosives shall meet the provisions of Department of Transportation regulations contained in 14 CFR Part 103, Air Transportation; 46 CFR Parts 146-149, Water Carriers; 49 CFR Parts 171-179, Highways and Railways; 49 CFR Part 180, Pipelines; and 49 CFR Parts 390-397, Motor Carriers, and any applicable State Rules and Regulations.

VI. HANDLING AND USE OF EXPLOSIVES.

REPORTING ACCIDENTAL FIRES AND EXPLOSIONS.

6.01. All accidents, fires, and accidental explosions occurring in connection with the manufacturing, storage, use, and handling of explosives shall be reported at once to the Commissioner by telephone and be supplemented by detailed written report to the Virginia Department of Labor and Industry, P.O. Box 12064, Richmond, Virginia 23241.

GENERAL REQUIREMENTS.

6.02. Only electric blasting caps shall be used for blasting operations in congested districts, or on highways, or adjacent to highways open to traffic, except where sources of extraneous or stray currents make such use dangerous.

6.03. Explosives shall be handled only by a blaster, or workmen under the direct supervision of a blaster, except as provided under Section 8.01(a).

6.04. Smoking, open lights, or fire of any kind is prohibited in or near any area where explosives are being handled. No source of ignition except means necessary to light fuses or fire electric detonators, is permitted in an area cotaining loaded holes.

6.05. Explosives shall be kept in original or equivalent containers until they are to be used.

6.06. Fiber, nonsparking metal, rubber or wooden tools shall be used to open wooden cases of explosives.

6.07. Unused explosives and detonators shall not be left lying around and shall be returned each night to the magazine which shall be kept locked.

6.08. Men performing blasting operations shall know at all times the location of other persons in the area.

6.09. When explosives are to be transported on a skyline, aerial cableway or tramway, the containers shall be securely fastened. Explosives shall remain at least one hundred fifty (150) feet away from the loading point until ready to be loaded and sent out. No men shall ride on the vehicle with explosives. Detonators shall not be on the vehicle with explosives.

6.10. Detonators shall be issued only to blasters or blaster learners and in amounts necessary for immediate use.

6.11. Detonators shall never be carried in the pockets of workmen's clothing. Separate carrying pouches of leather, canvas, or other suitable material for explosives and for detonators shall be provided when it is necessary to carry explosives.

6.12. The user shall not transfer explosives or blasting agents to any person except those holding permits as specified in Section 9.02.

SAFETY FUSE.

6.13. The use of fuse which is wet, oil soaked, kinked or damaged in any way that might affect its rate of burning is prohibited.

6.14. The burning rate of each new lot of fuse shall be determined by burning not less than one three-foot (3) length prior to its use at any blasting area. Not less than one (1) inch shall be cut from the end of the coil and discarded before the section to be tested is cut off.

6.15. Fuses shall be cut sufficiently long to allow ample time for the blaster to reach a point of safety, but in no case shall fuse be less than three (3) feet in length.

6.16. Fuse(s) shall be stored in a cool, dry place, away from oils and grease and protected from theft. It shall be handled carefully to prevent kinking.

PREPARING PRIMERS.

6.17. The preparation of primers shall be done in a safe place, well away from fire, possible sparks, magazines, or detonator boxes. Where practical to do so, primers shall be prepared at the point of use and immediately placed in the borehole.

6.18. Cap containers shall be kept closed at all times

except when caps are actually being removed.

6.19. At least one (1) inch shall be cut from the end of each coil of fuse to be used to prevent damp fuse ends from getting into the cap. Fuse shall be cut off square for insertion into the cap, and the cap properly crimped. Only approved crimpers shall be provided and used.

6.20. Capped safety fuse shall not be attached to a cartridge by half hitching the fuse around the cartridge or otherwise causing short bends in the fuse. The cap shall be fully inserted in the cartridge.

6.21. Electric blasting caps shall be handled carefully to prevent damage to wires. Shunts shall not be removed until connections are to be made except for testing, after which the wires shall be immediately shorted.

6.22. All primers shall be made carefully so that they satisfy the following:

(a) The blasting cap cannot be pulled out of the primer cartridge.

(b) The blasting cap is to be in the safest and most effective position in the primer cartridge.

(c) The wires of electric firing devices or the fuses are not subject to harmful strains and stresses.

(d) The primer is water resistant when necessary.

(e) The whole primer assembly can be loaded safely, easily, conveniently, and in the preferred position in the charge.

6.23. In making up explosive primers, the pouch shall consist of a pointed pin, preferably of wood, brass, aluminum, or other nonsparking metal with a nonsparking handle. The punch on the approved hand crimper may be used.

DRILLING.

6.24. Drilling shall not be resumed after blasts have been fired until a thorough examination has been made to make sure that there are no unexploded charges remaining, and if any are found, they shall be refired before work proceeds provided that the burden has not been weakened by the blasting. The handling of such a misfire shall be according to the recommendations of the manufacturer.

6.25. No person shall be allowed to deepen holes that have contained explosives.

LOADING.

6.26. The loading of explosive charges into blast holes shall be done only by a blaster or workmen under his supervision.

6.27. Loading crews shall be kept to a minimum; and other workmen shall not be unduly exposed to explosive hazards.

6.28. Upon the completion of loading explosive charges in any blast area, the explosives shall be detonated at the earliest safe time.

6.29. Metal equipment not used for loading explosives into boreholes and all unneeded metal tools shall be removed from the immediate location of the holes before explosives are delivered.

6.30. No more explosives and/or blasting agents shall be placed at the hole being loaded than the amount necessary to load such boreholes.

6.31. While holes are being loaded, no portable cables or equipment shall be allowed within the area.

6.32. Holes which have been "sprung" shall not be loaded until sufficient time has been allowed for the hole to cool.

6.33. All drill holes shall be checked with a loading stick or a method which will show that the hole is open for the full depth before loading is begun.

6.34. The detonator shall be encased in explosive when inserted into a drill hole.

6.35. The use of pneumatic loaders for blasting agents is prohibited, unless application is first made to the Commissioner, P.O. Box 12064, Richmond, Virginia 23241, and written permission is obtained for each particular location.

6.36. All tamping shall be done with wooden rods or blocks without exposed metal parts, but nonsparking metal connections may be used for jointed poles. Plastic tamping poles approved for tamping explosives may be used. Primers shall not be forced into holes, and tamping of explosives shall be by pressure or very light blows only.

6.37. Blast holes shall be stemmed to the collar or mats used which will confine the charge and minimize flying material.

6.38. Leg wires of electric detonators shall be shorted or shunted and remain so until connections are made into a firing circuit.

BLASTING ELECTRICALLY.

6.39. Lead wires shall not come into contact with air lines and other equipment.

6.40. Lead wires to which a circuit of electric detonators

have been connected shall be kept short-circuited until they are to be connected to the source of current for firing the blast except when the shunts are opened on wired-up circuits during the course of electrical storms.

6.41. Lead wires shall not be connected to the source of electric firing current until just before the blast is to be fired and then only by the blaster or someone directly under his supervision.

6.42. Electric firing apparatus of sufficient capacity shall be used to insure that all charges will detonate.

6.43. Dry cell batteries shall not be used for firing more than a single electric detonator, except when such batteries are an integral part of conventional capacitor type blasting equipment. Only dry cell batteries which have no exposed terminals and approved by the U.S. Bureau of Mines may be used for this purpose.

6.44. Electric blasting caps should be tested either singular or when connected in a series circuit with a blasting galvanometer or other instruments which have been designed and approved for this purpose.

6.45. The insulation on all firing lines and lead lines shall be in good condition. Blasting circuits shall not be grounded at any point and any bare spots in the circuit, such as wire connections, shall not be allowed to touch the ground.

6.46. When a power circuit is used, a master switch shall be installed which shall be locked in the off or open position at all times except when firing. All keys to the switch lock shall be in the possession of the blaster or person under his direct supervision.

6.47. When firing by means of a power circuit, there shall be a gap in the circuit between the power line switch of at least fifteen (15) feet, except during the actual firing operation.

6.48. One or more safety switches shall be placed in the firing line in addition to the blasting switch used for firing the blast. The blasting switch and any safety switches used shall not be grounded.

6.49. No electric blasting shall be done under overhead power lines, or within range of them where it is possible that lead wires might be blown into contact with the electric lines, unless special precautions are taken to hold down lead wires.

6.50. Areas to be blasted under high voltage electrical lines and near radio, television and radar transmitters shall be tested for stray electrical currents by a competent person using instruments designed for this purpose. Where stray electrical currents exceeding fifty (50) milliamps are detected, the use of electrical blasting is prohibited.

6.51. Standard type warning signs requesting that no radio transmitting be carried on while passing through the blast area shall be maintained on the right hand shoulder of public and private roads approximately one thousand (1000) feet in each direction of all access roads to the blast area.

6.52. Electric blasting operations shall not be conducted closer to any operation mobile or fixed radio, television or radar transmitters than indicated in the tables on pages 38/39 approved by the Institute of Makers of Explosives, Publication No. 20, revision, October 1978.

FIRING OF CHARGES.

6.53. Before firing any blast, all means of access to the danger zone as determined by the blaster shall be effectively guarded to keep out all unauthorized persons. Audible warning signals shall be given in ample time to permit all persons in the danger area to reach a place of safety. Upon receiving the warning signal, all persons in the area shall immediately retire to a safe shelter or distance.

6.54. The blaster shall make sure that all persons are out of the danger area before firing the blast.

6.55. Flagmen shall be posted along roads and highways which may be endangered by blasting operations to stop and hold traffic while the hazard exists.

6.56. If fuse is used, explosions shall be counted and compared with the number charges lighted. When it is not certain that all charges have been exploded, no person shall enter the place where such charges were fired within the time limits and under the conditions enumerated in Section 6.63.

INSPECTION AFTER BLASTING.

6.57. Immediately after a blast has been fired, the firing line shall be disconnected from the blasting machine and short circuited, or where power switches are used, they shall be locked open.

6.58. A thorough inspection shall be made by the blaster to determine if all charges have been exploded. Other persons shall not return to the blasting area until determination has been made by the blasters that all shots have been fired.

6.59. All wires shall be carefully traced and search made for unexploded cartridges.

6.60. A careful lookout shall be maintained for unexploded cartridges in muck piles. Any found shall be carefully gathered and disposed of in the same manner as required for deteriorated explosives.

MISFIRES.

6.61. Misfires shall be handled only by an experienced blaster in accordance with his best judgment and skill.

6.62. If broken wires, faulty connections or short circuits are determined as the cause of misfires, the proper repairs shall be made, the firing line reconnected, and the charge fired, provided the burden has not been dangerously weakened by other shots.

6.63. When misfires occur in electric detonators no one shall approach the charge until at least fifteen (15) minutes have elapsed, and only then after lead wires have been disconnected and shorted. The handling of misfire holes shall be according to the recommendations of the manufacturer. When misfires occur where fuse caps have been used, no one shall re-enter the area until twelve (12) hours have elapsed. No one, except the blaster and his assistants, shall be permitted to go into the blast area until the misfire has been corrected.

RETURNING TO BLAST AREA.

6.64. No one shall return to the site of the blast until sufficient time has elapsed to allow the smoke, dust, and fumes from the explosion to clear away.

VII. SPECIAL PRECAUTIONS RELATIVE TO BLASTING AGENTS.

7.01. These rules and regulations for blasting agents shall apply to any material or mixture, consisting of a fuel and oxidizer, intended for blasting, not otherwise classified as an explosive and in which none of the ingredients are classified as an explosive, provided that the finished products, as mixed and packaged for use or shipment, cannot be detonated by means of a No. 8 test blasting cap when unconfined.

DISTANCE LIMITATIONS.

7.02. Where finished blasting agents are manufactured; and/or where finished blasting agents and raw ammonium nitrates are handled or stored together within the distance limitation for separation of magazines given in the American Table of Distances, the weight of the raw ammonium nitrate shall be included in the calculation of the weight of total blasting agents for determining the proper spacing from highways, public buildings and railroads.

7.03. The mixing plant shall be separated from the raw nitrate storage areas and the finished blasting agents then provided by the separation of magazines table shall be considered as blasting agents when calculating the quantity of blasting agents involved.

7.04. Miscellaneous combustible materials shall not be kept in proximity to stored ammonium nitrate.

7.05. When storing blasting agents in magazines, the quantity distances given in the American Table of Distances shall be observed.

BLASTING PROHIBITED.

7.06. Under no circumstances shall caked ammonium nitrate in bags or in bulk be loosened by blasting with explosives.

BUILDING, OPERATION, AND STORAGE.

7.07. The area surrounding the manufacturing and storage facility shall be kept free of rubbish, dry grass, or other materials of a combustible nature for not less than twenty-five (25) feet in all directions.

7.08. The design and construction of the warehouse floor shall be such as to avoid open drain and piping into which molten ammonium nitrate could flow and be confined in the event of fire.

7.09. Floors in the processing plant shall be of concrete. Floors in storage area may be of concrete or other suitable material. Fuel oil or other carbonaceous fuels, shall be stored in a separate, isolated building or an outside tank to minimize possible contact between molten ammonium nitrate and fuel in the event of fire. A shut-off valve shall be provided at the tank.

7.10. The building shall be well ventilated.

7.11. Heat shall be provided exclusively from a source located outside the building.

7.12. No unusual compositions shall be attempted except under the supervision of competent personnel equipped to determine the sensitivity of the resulting composition.

7.13. Liquid fuels with a flashpoint lower than that of No. 2 diesel fuel oil (125°F minimum or legal) shall not be used. More volatile fuels, such as gasoline, kerosene, or No. 1 diesel fuel shall not be used.

7.14. If solid fuels are used they shall be chosen to minimize dust-explosion hazards.

7.15. Crude oil and crankcase oil shall not be used.

7.16. A maximum of one day's production, or the limit determined by the American Table of Distance, if that is less, shall be tolerable within or in the immediate vicinity of the mixing and packaging plant.

7.17. Where ammonium nitrate and/or blasting agents are stored with explosives in the same magazine, bullet-resistant magazine construction shall be required and the total weight of material shall be considered as explosives in establishing distances according to the American Table of Distances.

7.18. All electrical switches, controls, motors, and lights, if located in the mixing room, should conform to the requirements of Class II, Division 2, of the current National Electrical Code, otherwise they shall be located outside the mixing room. The frame of the mixer and all other equipment that may be used shall be electrically bonded and be provided with a continuous path to the ground.

7.19. No smoking shall be permitted near ammonium nitrate or blasting agents.

7.20. No accumulations of empty ammonium nitrate bags shall be permitted in or near the storage of ammonium nitrate or blasting agents.

7.21. Broken bags of ammonium nitrate or broken cartridges of blasting agents shall immediately be cleaned up and removed.

7.22. Finished blasting agents in bags or in cartridges shall be stacked as to allow free circulation of air.

7.23. The mixing of blasting agents in transit is positively prohibited.

7.24. The mixing of blasting agents at the site of the blast for immediate use is permissible.

BLASTING OPERATIONS.

7.25. Adequate priming shall always be employed to guard against misfires, increased toxic and poor performance. The kind and amount of primer used shall be governed by the sensitivity of the blasting agent, hole diameter, and other factors.

7.26. If undetonated explosive is suspected in the muck pile shall be very thoroughly wetted down with water before any digging is attempted.

7.27. Fumes from the explosion of blasting agents shall be allowed to clear completely before the area is entered.

VIII. BLASTING RESPONSIBILITY.

QUALIFICATIONS.

8.01. No person, except as stipulated in Section 8.04 shall detonate explosives in any blasting operation unless/or until he has the qualifications for designation required in Section 1.06.

(a) This rule shall not apply to a person blasting stumps, rocks, etc. on his own private property, using five (5) pounds or less of explosives with the further conditions that blasting be such as not to endanger life, limb, or the property of others.

DESIGNATING BLASTERS.

8.02. It shall be the responsibility of the employer to determine a person's age, competency and experience in the use and handling of explosives before designating him as a blaster.

SOLO BLASTING PROHIBITED.

8.03. No person shall detonate explosives unless another person is present within calling distance and able and ready to render assistance in the event of accident or injury.

BLASTER LEARNERS.

8.04. An employer may designate a reasonable number of his employees over eighteen (18) years of age as "blaster learners" (not over two for each blaster) and any employee so designated may detonate explosives, but only under the direct supervision and direction and in the presence of a blaster, foreman, or supervisor who is experienced in the use and handling of explosives.

RESPONSIBILITY FOR DESTROYING EXPLOSIVES.

8.05. Explosives shall only be destroyed by a blaster, or persons directly under his supervision, or under the supervision of the manufacturer's representative.

IX. SALES AND PERMITS.

RECORD OF SALES REQUIRED (See also Section IV - Storage).

9.01. Every person within the State, selling, delivering, or giving away an explosive shall keep at his principal office or place of business a record of the transaction of the immediate past two years on forms, furnished by the Department on request, or on forms of his own approved by the Department or those approved by the Bureau of Alcohol, Tobacco, and Firearms of the U.S. Department of Treasury. These forms shall include the name or type and quantity of explosive, the date of each sale, delivery, or gift, the name and business address of the purchaser, donee or person to whom delivered, the number of the permit to own or possess explosives, the name and address of the person taking the explosive away and for what use. A report of all such transactions, when requested by him, shall be submitted to the Commissioner. Such record shall be open to inspection by the Commissioner or by all offices empowered to enforce the criminal laws of the State. No person shall have in his possession any explosives unless he has a bill of sale or other evidence of title thereto.

PERMITS REQUIRED TO STORE, MANUFACTURE, SELL, AND SPECIAL USE.

9.02. Every person storing or in possession of explosives shall be required to have a permit for each magazine

used for the storage of such explosives. Permits shall be issued by the Department upon receipt of information showing compliance with the provisions of these regulations. Forms are available from the Department on request.

(a) The preceding regulation does not apply to individual purchasers who are limited to the purchase of twenty-five (25) pounds or less of explosives for use of his (or her) own property.

(b) The preceding regulation does not apply to individual purchasers who are limited to the purchase of twenty-five (25) pounds or less of smokeless powder and/or black rifle powder for their own use for the hand loading of small arms ammunition and which is not for resale.

9.03. Regular permits are issued on an annual basis and shall expire on the thirty-first (31) day of December. These permits may be renewed upon request. Special use permits will be limited to time specified.

9.04. Permits shall not be transferable.

9.05. Permit to sell explosives or explosive supplies is required of jobbers, wholesalers, dealers, and retailers, whether or not they physically handle, store, or have possession of the explosives. This permit is also required for all non-residents who desire to sell explosives within the State.

PERMITS.

9.06. Manufacture. Authorizes the manufacture of explosives and mixing of blasting agents, storage of materials in process, development materials and finished product.

Sell. Authorizes the sale of explosives or blasting agents. Wholesale, or Wholesale and Retail or Retail.

Store. Authorizes the purchase and storage of explosives and blasting agents in a specified magazine.

Special Use Permit. The Department may issue special use permits to authorize a person not storing explosives to secure from another person owning an approved magazine and holding permit for same, a limited quantity of explosives (not to exceed one hundred (100) pounds) for immediate use on a specific blasting job. Any unused explosives shall be returned to the magazine from which secured at the end of each work day. Such user shall comply with all other requirements of these rules and regulations.

Small User's Permit. The Department may issue permits for the purchase and use of small quantities of explosives or blasting agents (not to exceed fifty (50) pounds) at any one time to small users, such as well drillers, cemeteries, small town governments, etc.

To be eligible for a permit, the applicant must be operating a legitimate business under a license or charter issued by those in authority, and the license or charter number and expiration date shall be shown on application for permits. Cemeteries having grave opening service, and not required to have license or charter to operate, may be issued a permit.

Permits must be presented when purchasing explosives and kept on the job site when blasting is being done.

It shall be the dealer's responsibility to have purchasers of explosives using small user's permit to execute from S.U.S 70 furnished by the Department on request, for each sale of explosives. Forms are to be mailed to the Virginia Department of Labor and Industry, P. O. Box 12064, Richmond, Virginia 23241, after the close of business each month. Purchases shall also be posted on dealer's sales record.

Any blasting operations done under these permits shall conform in every respect with the State Rules and Regulations Governing the Manufacturing, Storage, Handling, Use, and Sale of Explosives.

Any unused explosives and caps shall be returned to the seller at the end of each work day.

This permit expires on December 31 in the year of issue, and may be renewed upon request. (NOTE: Fees for permits referenced at the end of Section IX.)

QUALIFICATIONS FOR PERMITS.

9.07. No person under eighteen (18) years of age shall be issued a permit to manufacture, sell, or store explosives. All permits shall be issued by the Virginia Department of Labor and Industry, P. O. Box 12064, Richmond, Virginia 23241.

REVOCATION.

9.08. Violation of any part of these rules and regulations governing the manufacturing, storage, handling, use, or sale of explosives or blasting agents shall be grounds for the revocation of permits. Violators are also subject to the penalties provided in 40.1-23 Section (d) of the Code of Virginia.

DUTIES AND OBLIGATIONS OF PERMIT HOLDERS.

9.09. Permit holders shall take every reasonable precaution to protect their permits from loss, theft, defacement, destruction, or unauthorized duplication.

9.10. The loss or theft of any permit shall be reported immediately to the Commissioner.

9.11. Permits shall be exhibited in conformity with the following provisions:

(a) A separate permit must be obtained for each magizine, each manufacturing operation, each sales operation, and each special use project.

(b) to manufacture - the permit shall be posted at the plant where explosives are manufactured.

(c) to sell - the permit shall be posted at the location where explosives are sold.

(d) to store - the permit shall be kept posted conspicuously in or about the magazine for which issued.

(e) Special Use Permits shall be available for inspection at all times on the job for which issued.

§ 40.1-25. Permit to manufacture, store, handle, use or sell explosives.

(f) Types of permits issuable, accompanied by appropriate application fees, are the following:

(i) For manufacturing - fifty dollars;

(ii) For storing and using explosives or blasting agents in Class I magazine which is defined as a magazine containing more than two hundred pounds of explosives - fifteen dollars;

(iii) For storing and using explosives or blasting agents in Class II magazine which is defined as a magazine containing two hundred pounds or less - ten dollars;

(iv) For selling wholesale and retail - twenty-five dollars;

(v) For selling wholesale - fifteen dollars;

(vi) For selling retail - ten dollars;

(vii) For special use, which permits are defined in subsection (g) of this section - five dollars; and

(viii) For small users which permits are defined in subsection (b) of this section - ten dollars.

Cross reference. As to enforcement of this title and rules and regulations adopted pursuant thereto, and penalties for violations, see § 40.1-49.4.

APPENDIX A

AMERICAN TABLE OF DISTANCES FOR STORAGE OF EXPLOSIVES‡‡

As Revised and Approved by The Institute of Makers of Explosives — April 29, 1983

QUANTITY OF EXPLOSIVES		DISTANCES IN FEET							
		Inhabited Buildings		Public Highways Class A to D		Passenger Railways — Public Highways with Traffic Volume of more than 3,000 Vehicles/Day		Separation of Magazines	
Pounds Over	Pounds Not Over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
2	5	70	140	30	60	51	102	6	12
5	10	90	180	35	70	64	128	8	16
10	20	110	220	45	90	81	162	10	20
20	30	125	250	50	100	93	186	11	22
30	40	140	280	55	110	103	206	12	24
40	50	150	300	60	120	110	220	14	28
50	75	170	340	70	140	127	254	15	30
75	100	190	380	75	150	139	278	16	32
100	125	200	400	80	160	150	300	18	36
125	150	215	430	85	170	159	318	19	38
150	200	235	470	95	190	175	350	21	42
200	250	255	510	105	210	189	378	23	46
250	300	270	540	110	220	201	402	24	48
300	400	295	590	120	240	221	442	27	54
400	500	320	640	130	260	238	476	29	58
500	600	340	680	135	270	253	506	31	62
600	700	355	710	145	290	266	532	32	64
700	800	375	750	150	300	278	556	33	66
800	900	390	780	155	310	289	578	35	70
900	1,000	400	800	160	320	300	600	36	72
1,000	1,200	425	850	165	330	318	636	39	78
1,200	1,400	450	900	170	340	336	672	41	82
1,400	1,600	470	940	175	350	351	702	43	86
1,600	1,800	490	980	180	360	366	732	44	88
1,800	2,000	505	1,010	185	370	378	756	45	90
2,000	2,500	545	1,090	190	380	408	816	49	98
2,500	3,000	580	1,160	195	390	432	864	52	104
3,000	4,000	635	1,270	210	420	474	948	58	116
4,000	5,000	685	1,370	225	450	513	1,026	61	122
5,000	6,000	730	1,460	235	470	546	1,092	65	130

QUANTITY OF EXPLOSIVES		DISTANCES IN FEET							
6,000	7,000	770	1,540	245	490	573	1,146	68	136
7,000	8,000	800	1,600	250	500	600	1,200	72	144
8,000	9,000	835	1,670	255	510	624	1,248	75	150
9,000	10,000	865	1,730	260	520	645	1,290	78	156
10,000	12,000	875	1,750	270	540	687	1,374	82	164
12,000	14,000	885	1,770	275	550	723	1,446	87	174
14,000	16,000	900	1,800	280	560	756	1,512	90	180
16,000	18,000	940	1,880	285	570	786	1,572	94	188
18,000	20,000	975	1,950	290	580	813	1,626	98	196
20,000	25,000	1,055	2,000	315	630	876	1,752	105	210
25,000	30,000	1,130	2,000	340	680	933	1,866	112	224
30,000	35,000	1,205	2,000	360	720	981	1,962	119	238
35,000	40,000	1,275	2,000	380	760	1,026	2,000	124	248
40,000	45,000	1,340	2,000	400	800	1,068	2,000	129	258
45,000	50,000	1,400	2,000	420	840	1,104	2,000	135	270
50,000	55,000	1,460	2,000	440	880	1,140	2,000	140	280
55,000	60,000	1,515	2,000	455	910	1,173	2,000	145	290
60,000	65,000	1,565	2,000	470	940	1,206	2,000	150	300
65,000	70,000	1,610	2,000	485	970	1,236	2,000	155	310
70,000	75,000	1,655	2,000	500	1,000	1,263	2,000	160	320
75,000	80,000	1,695	2,000	510	1,020	1,293	2,000	165	330
80,000	85,000	1,730	2,000	520	1,040	1,317	2,000	170	340
85,000	90,000	1,760	2,000	530	1,060	1,344	2,000	175	350
90,000	95,000	1,790	2,000	540	1,080	1,368	2,000	180	360
95,000	100,000	1,815	2,000	545	1,090	1,392	2,000	185	370
100,000	110,000	1,835	2,000	550	1,100	1,437	2,000	195	390
110,000	120,000	1,855	2,000	555	1,110	1,479	2,000	205	410
120,000	130,000	1,875	2,000	560	1,120	1,521	2,000	215	430
130,000	140,000	1,890	2,000	565	1,130	1,557	2,000	225	450
140,000	150,000	1,900	2,000	570	1,140	1,593	2,000	235	470
150,000	160,000	1,935	2,000	580	1,160	1,629	2,000	245	490
160,000	170,000	1,965	2,000	590	1,180	1,662	2,000	255	510
170,000	180,000	1,990	2,000	600	1,200	1,695	2,000	265	530
180,000	190,000	2,010	2,010	605	1,210	1,725	2,000	275	550
190,000	200,000	2,030	2,030	610	1,220	1,755	2,000	285	570
200,000	210,000	2,055	2,055	620	1,240	1,782	2,000	295	590
210,000	230,000	2,100	2,100	635	1,270	1,836	2,000	315	630
230,000	250,000	2,155	2,155	650	1,300	1,890	2,000	335	670
250,000	275,000	2,215	2,215	670	1,340	1,950	2,000	360	720
275,000	300,000	2,275	2,275	690	1,380	2,000	2,000	385	770

‡This Table and its accompanying notes are reproduced from the American Table of Distances for Storage of Explosives as revised and approved by the Institute of Makers of Explosives, April 29, 1983, Publication No. 2.

APPENDIX A (CONT'D.)

EXPLANATORY NOTES ESSENTIAL TO THE APPLICATION OF THE AMERICAN TABLE OF DISTANCES FOR STORAGE OF EXPLOSIVES

NOTE 1 — "Explosive materials" means explosives, blasting agents, and detonators.

NOTE 2 — "Explosives" means any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion. A list of explosives determined to be within the coverage of "18 U.S.C. Chapter 40, Importation, Manufacture, Distribution and Storage of Explosive Materials" is issued at least annually by the Director of the Bureau of Alcohol, Tobacco, and Firearms of the Department of Treasury.

NOTE 3 — "Blasting agents" means any material or mixture, consisting of fuel and oxidizer, intended for blasting, not otherwise defined as an explosive: Provided, That the finished product, as mixed for use or shipment, cannot be detonated by means of a number 8 test blasting cap when unconfined.

NOTE 4 — "Detonator" means any device containing a detonating charge that is used for initiating detonation in an explosive; the term includes, but is not limited to, electric blasting caps of instantaneous and delay types, blasting caps for use with safety fuses and detonating-cord delay connectors.

NOTE 5 — "Magazine" means any building or structure, other than an explosives manufacturing building, used for the permanent storage of explosive materials.

NOTE 6 — "Natural Barricade" means natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures which require protection cannot be seen from the magazine when the trees are bare of leaves.

NOTE 7 — "Artificial Barricade" means an artificial mound or revetted wall of earth of a minimum thickness of three feet.

NOTE 8 — "Barricaded" means that a building containing explosives is effectually screened from a magazine, building, railway, or highway, either by a natural barricade, or by an artificial barricade of such height that a straight line from the top of any sidewall of the building containing explosives to the eave line of any magazine, or building, or to a point twelve feet above the center of a railway or highway, will pass through such intervening natural or artificial barricade.

NOTE 9 — "Inhabited Building" means a building regularly occupied in whole or in part as a habitation for human beings, or any church, schoolhouse, railroad station, store, or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage or use of explosives.

NOTE 10 — "Railway" means any steam, electric, or other railroad or railway which carries passengers for hire.

NOTE 11 — "Highway" means any street or public road. "Public Highways Class A to D" are highways with average traffic volume of 3,000 or less vehicles per day as specified in "American Civil Engineering Practice" (Abbett, Vol. 1, Table 46, Sec. 3-74, 1956 Edition, John Wiley and Sons).

NOTE 12 — When two or more storage magazines are located on the same property, each magazine must comply with the minimum distances specified from inhabited buildings, railways, and highways, and, in addition, they should be separated from each other by not less than the distances shown for "Separation of Magazines," except that the quantity of explosives contained in cap magazines shall govern in regard to the spacing of said cap magazines from magazines containing other explosives. If any two or more magazines are separated from each other by less than the specified "Separation of Magazines" distances, then such two or more magazines, as a group, must be considered as one magazine, and the total quantity of explosives stored in such group must be treated as if stored in a single magazine located on the site of any magazine of the group, and must comply with the minimum of distances specified from other magazines, inhabited buildings, railways, and highways.

NOTE 13 — Storage in excess of 300,000 lbs. of explosives in one magazine is generally not required for commercial enterprises.

NOTE 14 — This Table applies only to the manufacture and permanent storage of commercial explosives. It is not applicable to transportation of explosives or any handling or temporary storage necessary or incident thereto. It is not intended to apply to bombs, projectiles, or other heavily encased explosives.

NOTE 15 — All types of blasting caps in strengths through No. 8 cap should be rated at 1½ lbs. of explosives per 1,000 caps. For strengths higher than No. 8 cap, consult the manufacturer.

NOTE 16 — For quantity and distance purposes, detonating cord of 50 to 60 grains per foot should be calculated as equivalent to 9 lbs. of high explosives per 1,000 feet. Heavier or lighter core loads should be rated proportionately.

APPENDIX B

TABLE OF RECOMMENDED SEPARATION DISTANCES OF AMMONIUM NITRATE AND BLASTING AGENTS FROM EXPLOSIVES OR BLASTING AGENTS[1,6]

Donor Weight		*Minimum Separation Distance of Acceptor when Barricaded[2] (ft.)*		*Minimum Thickness of Artificial Barricades[5]*
Pounds Over	*Pounds Not Over*	*Ammonium Nitrate[3]*	*Blasting Agent[4]*	*(in.)*
	100	3	11	12
100	300	4	14	12
300	600	5	18	12
600	1,000	6	22	12
1,000	1,600	7	25	12
1,600	2,000	8	29	12
2,000	3,000	9	32	15
3,000	4,000	10	36	15
4,000	6,000	11	40	15
6,000	8,000	12	43	20
8,000	10,000	13	47	20
10,000	12,000	14	50	20
12,000	16,000	15	54	25
16,000	20,000	16	58	25
20,000	25,000	18	65	25
25,000	30,000	19	68	30
30,000	35,000	20	72	30
35,000	40,000	21	76	30
40,000	45,000	22	79	35
45,000	50,000	23	83	35
50,000	55,000	24	86	35
55,000	60,000	25	90	35
60,000	70,000	26	94	40
70,000	80,000	28	101	40
80,000	90,000	30	108	40
90,000	100,000	32	115	40
100,000	120,000	34	122	50
120,000	140,000	37	133	50
140,000	160,000	40	144	50
160,000	180,000	44	158	50
180,000	200,000	48	173	50
200,000	220,000	52	187	60
220,000	250,000	56	202	60
250,000	275,000	60	216	60
275,000	300,000	64	230	60

APPENDIX B (CONT'D.)

Notes to Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents

NOTE 1 — Recommended separation distances to prevent explosion of ammonium nitrate and ammonium nitrate-based blasting agents by propagation from nearby stores of high explosives or blasting agents referred to in the Table as the "donor." Ammonium nitrate, by itself, is not considered to be a donor when applying this Table. Ammonium nitrate, ammonium nitrate-fuel oil or combinations thereof are acceptors. If stores of ammonium nitrate are located within the sympathetic detonation distance of explosives or blasting agents, one-half the mass of the ammonium nitrate should be included in the mass of the donor.

NOTE 2 — When the ammonium nitrate and/or blasting agent is not barricaded, the distances shown in the Table shall be multiplied by six. These distances allow for the possibility of high velocity metal fragments from mixers, hoppers, truck bodies, sheet metal structures, metal containers, and the like which may enclose the "donor." Where storage is in bullet-resistant magazines[1] recommended for explosives or where the storage is protected by a bullet-resistant wall, distances and barricade thicknesses in excess of those prescribed in the American Table of Distances are not required.

NOTE 3 — The distances in the Table apply to ammonium nitrate that passes the insensitivity test prescribed in the definition of ammonium nitrate fertilizer promulgated by the Fertilizer Institute;[2] and ammonium nitrate failing to pass said test shall be stored at separation distances determined by competent persons and approved by the authority having jurisdiction.

NOTE 4 — These distances apply to nitrocarbonitrates and blasting agents which pass the insensitivity test prescribed in regulations of the U.S. Department of Transportation and the U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms.

NOTE 5 — Earth, or sand dikes, or enclosures filled with the prescribed minimum thickness of earth or sand are acceptable artificial barricades. Natural barricades, such as hills or timber of sufficient density that the surrounding exposures which require protection cannot be seen from the "donor" when the trees are bare of leaves, are also acceptable.

NOTE 6 — For determining the distances to be maintained from inhabited buildings, passenger railways, and public highways, use the Table of Distances for Storage of Explosives in Appendix A of *NFPA 495–1973, Code for the Manufacture, Transportation, Storage, and Use of Explosive Materials.*

[1]For construction of bullet-resistant magazines see Chapter 3 of *NFPA 495–1973, Code for the Manufacture, Transportation, Storage, and Use of Explosive Materials.*

[2]Definition and Test Procedures for Ammonium Nitrate Fertilizer, Fertilizer Institute, November 1964.

*Table 1**

Recommended Distances for Commercial AM Broadcast Transmitters 0.535 to 1.605 MHz (Figure 4)

Transmitter Power (1) (Watts)	Minimum Distance (Feet)
Up to 4,000	750
5,000	850
10,000	1,200
25,000	2,000
50,000 (2)	2,800
100,000	3,900
500,000	8,800

(1) Power delivered to antenna.

(2) 50,000 watts is the present maximum power of U.S. broadcast transmitters in this frequency range.

*Table 2**

Recommended Distances for Transmitters up to 30 MHz (Excluding AM Broadcast) Calculated for a Specific Loop Pickup Configuration (1) (2) (Figure 5)

Transmitter Power (3) (Watts)	Minimum Distance (Feet)
100	750
500	1,700
1,000	2,400
5,000	5,500
50,000	17,000
500,000 (4)	55,000

(1) Based on the configuration shown in Fig. 2b. using 20.8 MHz, which is the most sensitive frequency.

(2) This table should be applied to International Broadcast Transmitters in the 10-25 MHz range.

(3) Power delivered to antenna.

(4) Present maximum for International Broadcast.

*Tables 1-5 are reproduced from the Safety Guide for the Prevention of Radio Frequency Radiation Hazards in the Use of Electric Blasting Caps as revised and approved by the Institute of Makers of Explosives, September 1981, Publication No. 20.

*Table 3**

Recommended Distances of Mobile Transmitters Including Amateur and Citizens' Band

MINIMUM DISTANCE (Feet)

Transmitter (1) Power (Watts)	MF 1.6 to 3.4 MHz Industrial	HF 28 to 29.7 MHz Amateur	VHF 35 to 36 MHz Public Use 42 to 44 MHz Public Use 50 to 54 MHz Amateur	VHF 144 to 148 MHz Amateur 150.8 to 161.6 MHz Public Use	UHF 450 to 470 MHz Public Use
10	40	100	40	15	10
50	90	220	90	35	20
100	125	310	130	50	30
180 (2)				65	40
250	200	490	205	75	45
500 (3)			290		
600 (4)	300	760	315	115	70
1,000 (5)	400	980	410	150	90
10,000 (6)	1,250		1,300		

Citizens Band, Class D Transmitters, 26.96-27.41 MHz

Type	Recommended Minimum Distance Hand-Held	Vehicle-Mounted
Double Sideband - 4 watts maximum transmitter power	5 ft.	15 ft.
Single Sideband - 12 watts peak envelope power	20 ft.	60 ft.

(1) Power delivered to antenna.
(2) Maximum power for two-way mobile units in VHF (150.8 or 161.6 MHz range) and for two-way mobile and fixed station units in UHF (450 to 460 MHz range).
(3) Maximum power for major VHF two-way mobile and fixed station units in 35 to 44 MHz range.
(4) Maximum power for two-way fixed station units in VHF (150.8 to 161.6 MHz range).
(5) Maximum power for amateur radio mobile units.
(6) Maximum power for some base stations in 42 to 44 MHz band and 1.6 to 1.8 MHz band.

LIBRARY BOARD (VIRGINIA STATE LIBRARY AND ARCHIVES)

Title of Regulation: **Regulations Establishing Qualifications for Professional Librarians.**

Statutory Authority: §§ 42.1-2 and 42.1-15.1 of the Code of Virginia.

Effective Dates: January 1, 1989 through December 31, 1989

Request for Governor's Approval as Emergency Regulations:

The Governor's approval is hereby requested for the adoption of the emergency regulations titled "Regulations Establishing Qualifications for Professional Librarians" in the form set forth within.

These regulations will allow the State Library Board to begin the certification and licensure of those professional librarians who are required to meet the qualifications established by the State Library Board, beginning January 1, 1989.

/s/ Ella Gaines Yates
Secretary, Virginia State Library Board

/s/ Donald J. Finley
Secretary of Education
Date: December 16, 1988

Approved: /s/ Gerald L. Baliles, Governor

Filed: /s/ Joan W. Smith
Registrar of Regulations
Date: December 30, 1988 - 9:23 a.m.

Regulations Establishing Qualifications for Professional Librarians.

PART I.
GENERAL INFORMATION.

§ 1.1. Definitions.

The following words and terms, when used in these regulations, shall have the following meaning, unless the context clearly indicates otherwise:

"Board" means the State Library Board.

"Books and library materials" means books, maps, newspapers, magazines, pamphlets, manuscripts, documents, public records, microforms, audio and visual material in any format, machine readable data records, materials for the developmently disabled and handicapped, or other documentary, written, or printed materials, using any technology, which are processed and organized for use by the members of the general public.

"Library" means an educational and cultural institution established to provide books and library materials required to meet the range of informational service needs of respective constituencies.

"Professional librarian" means a person employed to work in a library in a position requiring extensive knowledge of informational resources, library service patterns, historical perspectives, and the ability to coordinate, synthesize and disseminate information through the use of books and library materials on a level equivalent to that required for graduation from a library school accredited by the American Library Association.

"Public library" means a library that receives its primary support from a local public tax base.

§ 1.2. Issuing authority, individuals covered and exempt from regulations.

Professional Librarian's Certificates shall be issued by the State Library Board to any individual who has met the education or experience requirements for certification as set forth in these regulations. Librarians employed by the State Law Library or law libraries of counties or cities, libraries of colleges and universities and public school libraries are exempt.

PART II.
CERTIFICATION PROCESS.

Article 1.
Certification by Endorsement.

§ 2.1. A certificate shall be issued to an applicant who holds a current, valid certificate granted by another jurisdiction, providing that the standards for granting this certificate are comparable to those required for certification in the Commonwealth of Virginia.

Article 2.
Certification by Education.

§ 2.2. A certificate shall be issued to an applicant who has earned a master's degree from a school of library or information science that had a program accredited by the American Library Association at the time the degree was awarded. A certificate shall be issued to an applicant who has earned a doctoral degree in library or information science from an accredited institution.

Article 3.
Certification by Education and Experience

§ 2.3. A certificate shall be issued to an applicant who has been awarded a graduate degree in library or information science from a school with a program not accredited by the American Library Association and who presents evidence of having successfully completed at least three years of progressively responsible employment in one or more library-related positions, and who presents three

letters of recommendation from librarians who are either certified and licensed by the Commonwealth or who meet the standards set forth in § 2.1 of these regulations. These letters must testify to the competence of the applicant to practice at a professional level.

§ 2.3.1. A certificate shall be issued to an applicant who has been awarded an undergraduate degree from an accredited college or university and who has successfully completed 18 semester hours of library or information science on the graduate level and who presents evidence of having successfully completed at least five years of progressively responsible employment in one or more library-related positions and who presents three letters of recommendation from librarians who are either certified and licensed by the Commonwealth or who meet the standards set forth in § 2.1 of these regulations. These letters must testify to the competence of the applicant to practice at a professional level.

Article 4.
Certification Fee.

§ 2.4. The application fee for a certificate shall be established by the State Library Board pursuant to § 42.1-15.1. Fees are nonrefundable and shall not be prorated.

PART III.
LICENSING OF CERTIFIED LIBRARIANS.

Article 1.
Qualifications.

§ 3.1. Any person who has been granted a professional librarians' certificate by the State Library Board, or its predecessor, may be considered eligible for a license to practice as a professional librarian in the Commonwealth and may apply for a license by submitting a form acceptable to the board with the prescribed fee.

Article 2.
Individuals Who Shall Hold a License.

§ 3.2. All individuals governed by § 42.1-15.1 of the Code of Virginia and holding certificates granted by the Board at any time prior to the effective date of these regulations shall apply for a license within six months of the year 1990.

PART IV.
GRANTING AND RENEWAL OF LICENSES.

Article 1.
Terms, Frequency and Fees for Renewal.

§ 4.1. All licenses shall expire on June 30 of each even-numbered year beginning in January 1992.

§ 4.2. The secretary of the State Library Board shall send a notice and the appropriate renewal application form to the individual librarian at the last known home address. The completed application form, with the appropriate fee, shall be returned to the secretary no later than one month after the expiration date.

§ 4.3. Failure to receive written notice from the State Library Board does not relieve the licensee from the requirements to renew the license.

§ 4.4. Licenses shall be renewed upon application by the licensee and receipt of the appropriate fee.

§ 4.5. The biennial renewal fee shall be established by the State Library Board pursuant to 42.1-15.1. Fees are nonrefundable and shall not be prorated. The fee for late renewal shall be an amount equal to twice the renewal fee.

§ 4.6. Licensees failing to renew their licenses within six months following the expiration date noted on the license shall not be permitted to renew their licenses and shall apply as new applicants.

§ 4.7. Written notice shall be given within 30 days to the secretary of the State Library Board by each licensee of any change of home address.

PART V.
CAUSE FOR REVOCATION OR NONRENEWAL OF LICENSE.

Article 1.
Causes for Revocation of License.

§ 5.1. The State Library Board has the power to suspend, revoke, or deny renewal of any license issued under the provisions of Chapter 2 of Title 42 of the Code of Virginia, and the regulations of the Board, at any time after a hearing conducted pursuant to the provisions of the Administrative Process Act, Chapter 1.1:1 of Title 9 of the Code of Virginia, where the licensee has been convicted of a crime perpetrated in the course of professional practices or has violated any law or regulation governing the practice of a professional librarian.

§ 5.2. Any person whose license is revoked, suspended or not renewed has the right of appeal under the Administrative Process Act.

STATE CORPORATION COMMISSION

AT RICHMOND, DECEMBER 30, 1988

COMMONWEALTH OF VIRGINIA, ex rel.
CASE NO. PUE870081
STATE CORPORATION COMMISSION

Ex Parte: In the matter of adopting appropriate methodology for use in calculating, pursuant to PURPA, the Schedule 19 avoided costs of Virginia Electric & Power Company

FINAL ORDER

The Commission established this proceeding with two goals in mind. First, we would consider the appropriate methodology for developing Virginia Electric & Power Company's ("Virginia Power" or "Company") avoided costs and the calculation of 1989 avoided costs that are the basis for energy and capacity payments made to small qualifying facilities pursuant to the Public Utility Regulatory Policies Act (PURPA). Our second goal would be to revise Virginia Power's Schedule 19, which sets out the actual payments to these QFs with up to 2,500 kW capacity, using the computed avoided costs.

In the Commission's order of October 16, 1987, commencing this proceeding, we related the history of determining Virginia Power's avoided costs and establishing a Task Force charged with considering improved methodologies. Virginia Power, QFs, and consumer representatives joined with the staff to form this group which considered a methodology for calculating avoided costs pursuant to PURPA. In its report of October, 1987, the Task Force recommended a differential revenue requirements (DRR) methodology for calculating the avoided costs of firm power offered by QFs. The avoided cost of nonfirm power, in the Task Force's view, should be computed using marginal energy costs.

The Commission established this proceeding to consider the Task Force recommendations and to implement an appropriate methodology to calculate avoided costs. Accordingly, we directed Virginia Power to file a revised Schedule 19 consistent with the Task Force recommendations. Hearings were held on October 11, 12, and 13, 1988. A number of QFs with facilities of various types and sizes and a group of major industrial users of electric power, the Virginia Committee for Fair Utility Rates (Virginia Committee), participated. These parties, along with the Company and the staff, developed a full record touching on numerous issues.

In this proceeding, the Commission has considered the methodology for calculating avoided costs used in fixing payments to small QFs with 2,500 kW or less capacity which is but a fraction of the power supplied by QFs to Virginia Power. We have followed a policy of allowing large QFs and Virginia Power to negotiate payments, and we affirm that policy. While some large QFs have negotiated contracts incorporating versions of Schedule 19, others have not. In either instance, these QFs are not directly affected by our findings in this proceeding.

The Commission finds that the two goals of considering an appropriate methodology for calculating avoided costs and using it to compute 1989 avoided cost and of revising Virginia Power's Schedule 19 can now be met. We approve the use of the DRR methodology for firm power purchases and marginal energy costs for nonfirm purchases as recommended by the Task Force. We also find that Virginia Power has implemented this methodology in a reasonable manner and has computed its avoided costs for 1989. These computed avoided costs may be used to revise Schedule 19. We also find that a transition mechanism from the current payment structure to the new structure is appropriate.

The parties generally supported the DRR methodology and the Task Force recommendations. Virginia Power expressed the view that the results of its competitive solicitations for purchase of power might form the basis for payments to small QFs, but the Company accepted the DRR methodology for the purposes of this proceeding.

Essential to the DRR methodology are the determinations of when Virginia Power can avoid construction of a generation unit, the type of unit avoided, and the costs avoided. The parties also agreed that consideration of these issues is closely related to Virginia Power's forecasting of load. Pursuant to established procedures, Virginia electric utilities, including the Company, file load forecasts with the Commission in July of each year. Several parties recommended that Virginia Power file future proposed revisions to Schedule 19 concurrently with the annual load forecast filings. We accept this recommendation, and we direct Virginia Power to file any revisions to Schedule 19 at the same time it files its annual load forecasts.

During the course of this proceeding, various parties raised several issues which we consider beyond the scope of our inquiry. Protestant Virginia Committee advocated the establishment of procedures to consider Virginia Power's capacity expansion planning as a part of determining avoided costs. As stated during the hearing, the Commission finds that determination of avoided costs does not require Commission approval of plans for system expansion. Our goal in this proceeding it to consider a new methodology for determining avoided costs, and we will not resolve other issues.

The relationship between competitive bidding for purchased power and calculating avoided costs was also raised at several points. In our order of May 17, 1988, we denied Virginia Power's motion for leave to refile its case using the results of bidding instead of the DRR methodology proposed by the Task Force. We adhere to that determination. In January of this year, we authorized Virginia Power to use competitive negotiations to obtain

supplies of power and to use certain criteria in these solicitations. The Company is in its first round of soliciting bids and contracting for purchases. There simply is not enough experience available upon which to consider a methodology for calculating avoided costs using these bids. Accordingly, we will not consider bidding or the relationship of the DRR to bidding in this proceeding.

Major issues raised by Protestants Cargill, Inc., Chesapeake Corporation, Merck & Co., Inc., Stone Container Corporation, and Westvaco Corporation (hereinafter Industrial Protestants) were the reliability and propriety of Virginia Power's load forecast. Company assumptions about the purchase of 700 MW of power and emergency power purchases were also questioned. The Commission recognizes that experts may disagree on assumptions used in forecasting and power purchases. Further, Virginia Power had to select an arbitrary cut-off date and then prepare its filing. Events after that date could not be incorporated into all of the forecasts and assumptions. Constant revision and updating would stymie the Company and the Commission. We find, however, that Virginia Power's assumptions are reasonable for purposes of computing avoided costs using the DRR methodology. The record in this proceeding shows that Virginia Power's procedures for developing load forecasts are rigorous and systematic and that the Company constantly attempts to improve its forecasting. Likewise, Virginia Power's assumptions on availability of power for short term purchases and emergency purchases are based on operating experience and information available to the Company. We find these assumptions are also reasonable for use in the DRR methodology.

The Industrial Protestants also questioned various assumptions made and data used in conjunction with the numerous computer runs used by Virginia Power to develop avoided costs. Operating and maintenance expenses and their impact on the economical dispatch of power were of concern. Like the issues of load forecasts and power purchases, this is an area in which judgment and experience come into play. The record also shows that the various computer programs themselves require a number of assumptions and estimates of how expenses will be incurred. We conclude that Virginia Power's assumptions and data are reasonable.

As they did with various operating and maintenance expenses, the Industrial Protestants also expressed concern about projected fuel costs and use of projected versus historical operating data. With regard to fuel cost, we find that Virginia Power used reasonable projections of fuel costs in application of the DRR methodology. The Commission also finds that use of projected data in making assumptions about capacity availability and heat rates is reasonable. The entire process of calculating avoided costs is prospective in nature. Consequently, reasonable projections about events in the future must be incorporated.

While we have accepted Virginia Power's data and assumptions on operating and maintenance expenses, fuel costs, and projections, we note that these matters can be the subject of honest debate. Accordingly, in future applications of the DRR methodology, the Commission directs Virginia Power to identify the time at which various estimates and projections are made. We do not believe that the date for these projections must be the same as the date of the load forecast, but the Company must explain the development of projections and estimates as of the particular date selected.

The first goal of this proceeding, the consideration and adoption of a methodology for calculating Virginia Power's avoided costs, has been met. As we found in the foregoing paragraphs of this order, the DRR methodology is appropriate for the purpose of determining avoided costs. Further, Virginia Power implemented the DRR methodology in this case using appropriate data and reasonable assumptions. We recognize that this initial application of the DRR methodology has been protracted and, in some respects, controversial. We would anticipate that future proceedings applying the DRR methodology will be less complex. We also expect that Virginia Power will, in future proceedings, refine its selection of data and more clearly communicate the sources and time periods of this data.

Having reached our first goal, we will now turn to the second goal of this proceeding, implementing the results of the DRR methodology for small QFs through Virginia Power's Schedule 19. Virginia Power, the staff, and the protestants all agreed that the ceiling for qualification for Schedule 19 payments should be set at 3,000 kilowatts of reliable capacity. We adopt this recommendation. These parties also agreed that capacity payments should be capped at payment for not more than 3,000 kW annually, and we accept that recommendation as well.

Protestant Virginia Municipal Solid Waste Management Association proposed that QF's using municipal solid waste as their principal fuel be included in the coverage of Schedule 19, regardless of their capacity. Virginia Power expressed opposition to basing qualification for Schedule 19 purchase payments on any particular fuel source. Upon consideration of this issue, the Commission will not extend the application of Schedule 19 to all QFs using municipal solid waste as a fuel. Of course, any QF meeting the dependable capacity limits of Schedule 19 and using municipal solid waste as a fuel would qualify for payments. We note that the Commission identified in its order authorizing competitive negotiations a number of factors in addition to price which utilities could employ in distinguishing among proposals. Commonwealth of Virginia, ex rel. State Corporation Commission Ex Parte: In the matter of adopting Commission policy regarding the purchasing of electricity by public utilities from qualifying facilities when there is a surplus of power available, Case No. PUE870080, Final Order (January 29, 1988). The Commission identified two factors, benefits to be derived by communities associated with particular projects and economic and societal benefits for the people of the

Commonwealth, which would appear to encompass the benefits of using solid waste as a fuel for QFs. Our expectation is confirmed by the fact that QFs using solid waste as a fuel were successful bidders in Virginia Power's current solicitation.

Several intervening small hydro power producers raised another issue regarding reliable capacity. These interveners proposed that Virginia Power use a two-hour test period to determine dependable capacity for hydro power projects. The Company considers a six- to eight-hour test more appropriate. To resolve this dispute, the Commission believes that a four-hour test is appropriate for determining dependable capacity for QFs receiving Schedule 19 payments. This four-hour test standard should be expressly stated in Schedule 19.

Interveners also questioned the proposed increase in monthly charges for meter reading and processing. Virginia Power witness Hilton testified that these charges were based upon recent cost studies conducted by the Company, and this testimony was not contradicted. Accordingly, we will allow the proposed charges for meter reading and processing to take effect.

The issue of reducing the power received from QFs during some periods was also raised. Virginia Power proposed to reduce, within equipment design limits, the amount of power it would take from each QF during periods of minimum load condition. Such reductions would be limited to 1,000 off-peak hours in any calendar year. The Company explained that this proposal was a protective measure to avoid reducing output from its most economical units, including nuclear plants and base-load fossil fuel plants. The Company further explained that, as a practical matter, it foresaw only limited reductions in power received from the smaller qualifying facilities because of limitations in its transmission and dispatching systems. The Industrial Protestants' witness expressed reservations about this proposal and contended that the very nature of qualifying facilities requires that they be treated as "must run" facilities. We believe that Virginia Power's proposal is reasonable and consistent with the overall goal of maintaining system reliability and efficiency.

A final issue is that of transition from the current Schedule 19 to a new pricing structure reflecting the DRR methodolgy. We find that the transition provisions for QFs that currently receive variable energy payments under Schedule 19, i.e., QFs with capacity of 2,500 kW or less, are appropriate. We will adopt the Staff recommendation that this small group of QFs be offered the opportunity to convert from variable energy payments to fixed energy payments under the curent Schedule 19's Attachment A, effective November 1, 1987, uniti the expiration date of contracts in effect on the date of this order.

For ease of administration, the option must be exercised promptly. Election of fixed payments pursuant to this order will not operate retroactively or establish any right to fixed payments from a date earlier than the date Virginia Power receives written notice of the election. QFs not converting to fixed energy payments will receive variable payments under the new Schedule 19 Attachment A as if their first contract year is 1989. These annually revised payments will continue until the expiration date of current contracts. In all other respects, existing contracts and tariff provisions will govern transition.

As a final matter of implementation, the Commission will require Virginia Power to file as information calculations of the energy purchase payments for QFs first contracting in 1989 for all future years. These filings should be in the same format as the energy mix attachments made a part of each contract signed in 1989. These informational filings should be made at the same time as future proposed revisions to Schedule 19 are submitted.

Related to this filing requirement, and for ease of administration, the Commission directs Virginia Power to identify the revised Schedule 19 ordered below as "Schedule 19-1989" and Attachments A and B as "Attachment A-1989" and "Attachment B-1989." The future informational filings required in the preceding paragraph should be captioned as "Attachment A-1989/Contract Year 2 (1990)" in the 1989 filing and as appropriate for 1990 and beyond.

In conclusion, the Commission finds that its dual goals of adopting an appropriate methodology and calculating avoided costs and revising Schedule 19 have been reached. Accordingly, we will terminate this proceeding and direct Virginia Power to revise its proposed Schedule 19 and to prepare its first annual revision to be filed concurrently with its 1989 annual load forecasts.

IT IS ORDERED:

(1) That, forthwith upon receipt of this order, Virginia Power shall revise Schedule 19 in accordance with our findings and directions above and shall file such revised Schedule with the Commission;

(2) That the filing required in (1) above bear an effective date of January 1, 1989;

(3) That, forthwith upon receipt of this order, Virginia Power shall inform all QFs now receiving variable energy payments of the option to convert to fixed payments;

(4) That any eligible QF shall advise Virginia Power in writing of its election to receive fixed energy payments on or before March 1, 1989, otherwise the QF shall receive variable energy payments in accordance with this order;

(5) That this matter be dismissed from the Commission's docket of cases and the papers filed herein be placed in the files for ended matters.

ATTESTED COPIES of this Order shall be sent to

Richard D. Gary, Esquire, P.O. Box 1535, Richmond, Virginia 23212; William Bilenky, Esquire, 101 North 8th Street, 6th Floor, Richmond, Virginia 23219; Louis R. Monacell, Esquire, 1200 Mutual Building, Richmond, Virginia 23219; Edward L. Flippen, Esquire, P.O. Box 1122, Richmond, Virginia 23208; Beverley L. Crump, Esquire, P.O. Box 1463, Richmond, Virginia 23212; John K. Pollock, Route 1, Box 413, Afton, Virginia 22920; L. O. Scott, Route 3, Box 1, Amelia, Virginia 23003; Durwood S. Curling, P.O. Box 1346, Chesapeake, Virginia 23320; Ronald W. Denney, Route 1, Box 18, Waynesboro, Virginia 22980; Byron B. Wenger, Box 61, Woodstock, Virginia 22664; Wayne Rogers, 410 Severn Avenue #313, Annapolis, Maryland 21403; and to the Commission's Divisions of Energy Regulation, Accounting and Finance, and Economic Research and Development.

* * * * * * * *

AT RICHMOND, DECEMBER 29, 1988

COMMONWEALTH OF VIRGINIA, ex rel.

STATE CORPORATION COMMISSION

CASE NO. PUE880031

Ex Parte, in the matter of
establishing an investigation
of gas purchasing, procurement
practices, and gas cost recovery
for Virginia gas utilities

ORDER ADOPTING POLICY GOVERNING GAS PURCHASING PRACTICES AND GAS COST RECOVERY MECHANISM

In our Order of March 31, 1988, we acknowledged that changes in the availability of gas transportation and increased gas supply options compelled us to explore the desirability of developing a system to monitor Virginia gas utilities' procurement and purchasing activities and to revisit current Commission purchase gas adjustment ("PGA") policies. Consequently, we initiated an investigation of gas purchasing, procurement practices, and gas cost recovery for jurisdictional gas utilities. We directed our Staff to investigate these issues and, upon completion of the investigation, to file a report summarizing the Staff's investigatory procedures, findings, and recommendations.

Summary of the Staff Report

On September 22, 1988, the Staff filed its report in the captioned matter. This report recited that the Staff had surveyed selected public utility commissions, interviewed individual Virginia gas utilities and end users, conducted a technical conference, and reviewed various literature sources as part of its research. In addition, the Staff conducted a technical conference with a number of gas industry participants. The report discussed the changes that have occurred in the natural gas industry. In light of the changes confronting that industry, the Staff concluded that, in general, local distribution companies ("LDCs") have greater control over thier gas costs and therefore must assume greater responsibility for securing long-term supplies of natural gas. Increased gas supply flexibility has complicated local gas utilities' supply planning. Consequently, long-term forecasting and planning for local gas utilities are of much greater importance.

The Staff proposed to modify the five-year forecast data request so that it could be better employed as a tool with which to monitor local utility gas acquisition practices. The Staff concluded that stronger Commission oversight of gas purchasing practices, the traditional gas audit and review process, competition, and rate design policies should act to ensure efficient gas purchasing by utilities. In addition, the Staff recommended that it meet informally with larger gas utilities on an annual basis and smaller gas utilities biennially to discuss their gas purchasing techniques. The Staff recommended that the gas utility forecast appended to its report be used as a tool to monitor these utilities' gas purchasing practices. The report rejected the option of formal Commission approval of purchasing plans as an appropriate means of gauging a utility's purchase performance. The report observed that Virginia utilities would have greater assurance of gas cost recovery if the Commission elected to conduct extensive reviews and preapproval of gas purchasing procedures. Such preapproval could act as a disincentive for efficient gas supply planning because utility purchasing efforts may be misdirected in an effort to assure Commission approval.

The Staff report also considered and rejected a number of rate incentives to encourage utilities to purchase efficiently. The Staff concluded that stronger Commission oversight of gas purchasing practices would provide substantial incentives through the Commission's traditional audit and review process. These incentives coupled with those afforded by competition and rate design policies should act to ensure efficient gas purchasing.

According to the Staff, an ongoing review of each utility's short-term purchasing decisions could be accomplished through its purchase gas adjustment ("PGA") filing. On a longer term basis, the Staff recommended that it prepare a formal report to the Commission based on a detailed analysis of the five-year forecast, touching every major aspect of each utility's gas supply operations, recognizing any deficiencies and recommending investigation of such within the context of a rate proceeding or rule to show cause. Staff represented that it intended to discuss the results of its investigation with the subject utilities.

The Staff considered the continued propriety of a purchase gas adjustment clause for gas utilities. The Staff noted that automatic adjustment clauses must be narrowly defined and allowed only under certain conditions. In its report, Staff cited the criteria established by the Commission for automatic adjustment clauses in Case No. PUE830035, Application of Old Dominion Power Company, Inc., 1984 S.C.C. Ann. Rept. 408, 409 (Opinion, June 11,

1984):

> . . . [T]he purpose of an automatic adjustment clause is to allow a utility to adjust, without a rate proceeding, its revenues in response to changes in the cost of a relatively volatile, major expense item which the utility incurs on a continuous basis and over which it has little control. . .

The Staff applied the standard prescribed in the Old Dominion Power Company opinion to the natural gas industry and found gas rates to be more volatile at this time than in recent history. The Staff concluded that the Commission should continue to permit the automatic recovery of gas costs because of the continued volatility of these costs, the magnitude of each utility's gas expense, and the major transitions taking place in the gas industry.

The Staff also recommended that only commodity gas costs be allocated to interruptible customers for purposes of calculation of the PGA. The Staff made this recommendation because it believed that the level of appropriate contribution by interruptible customers was subjective and a matter best decided in the context of a rate proceeding. In addition, the Staff suggested that any demand costs incurred for customers desiring standby sources and on behalf of interruptible customers be excluded from the PGA calculations.

The Staff further recommended that the PGA be modified to provide for projections of gas costs. According to the Staff, this modification would allow the inclusion on all interruptible sales in the calculation of the PGA and promote improved pricing signals. The Staff included a description of various gas costs, a suggested basis for allocating these costs, and suggested PGA tariff terms and conditions as Appendices D and E to its report. The Staff recognized that its proposals could impose an administrative burden on local utilities, and therefore recommended that the PGA filings be made quarterly as opposed to monthly.

The Staff also supported minimum uniform filing requirements for local distribution companies. It recommended that Commonwealth Pipeline Corporation ("Pipeline") be excluded from uniform filing requirements. The basis for this exclusion, according to the Staff, was Pipeline's limited customer pool. Staff explained that Pipeline provided wholesale service to four distribution entities and one end user. According to the Staff, local utilities require pricing signals afforded through Pipeline's monthly projected PGA filings. Staff believed Pipeline's present PGA was appropriate.

The Staff noted that current PGA methodologies may improperly allocate costs among the gas utilities' firm customers. Gas demand and storage costs are now being allocated in a manner that assigns a greater proportion of demand and storage costs to high load factor customers. To correct this disproportionate allocation, Staff recommended that the actual cost adjustment mechanism of the PGA should assign a proportionate share of demand and storage costs to all customer classes.

The Staff further recommended that a policy should be adopted, specifying that utility companies do not have a continuing public service obligation to interruptible customers not electing standby service. The Staff stated that local gas utilities must make long-term commitments to purchase gas on behalf of customers who have the ability to avoid the cost of those commitments. This dilemma requires that natural gas end users take responsibility for their gas supply decisions and that the local utility's public service obligation be clearly defined. Rate unbundling and its corollary, definition of the service obligation to interruptible customers, are the first steps in encouraging the objective of end users' responsibility for their gas supply decisions. According to the Staff, adoption of this recommendation would result in the provision of improved economic signals to end users and may allow end users to specify their desired levels of service.

Finally, the Staff noted that the refund filings of various local gas utilities were inconsistent. Some utilities make direct refunds to larger customer classes on the basis of their actual consumption during the test period, while others made refunds to all customers on the basis of their prospective consumption. The Staff recommended that utilities make direct refunds to larger customers with alternate fuel or transportation capabilities. The Staff thought that this was necessary in view of large customer fuel switching and migration between sales and transportation services.

On November 22, 1988, we issued an order wherein we invited interested persons to file comments concerning the Staff report's recommendations. In the same Order, we advised interested persons who wished to request oral argument to file written requests for same. Nine persons filed written comments. The Staff also filed comments. Although many of those filing comments did reserve the right to present oral argument in the event others requested argument, no one affirmatively requested argument. A summary of the filed comments appears below.

Summary of Comments

Interested persons filing comments included Commonwealth Gas Pipeline Corporation ("Pipeline"), Commonwealth Gas Services, Inc. ("Services"), Columbia Gas of Virginia, Inc. ("Columbia"), Westvaco Corporation ("Westvaco"), United Cities Gas Company ("United"), Virginia Natural Gas Company ("VNG"), Division of Consumer Counsel, Office of the Attorney General ("Division"), Virginia Industrial Gas Users' Association ("Industrial Gas Users"), Northern Virginia Natural Gas and Shenandoah Gas Company ("WGL Companies"), and the Commission's Staff.

In its written comments, Pipeline generally supported Staff's recommendations. It supported the Staff's

recommendation that its existing PGA be exempted from the treatment recommended for local gas distribution companies' PGA clauses.

In its comments, Services commented that the forces competing in both the gas supply and end use sale markets provide substantial inherent economic incentives for efficient gas purchasing decisions for local distribution companies ("LDCs"). Services urged the Commission to consider the viability of a "noncore gas market," which would require little regulation. Services agreed with the Staff's conclusion that development of a "cost of gas index" for comparison with an individual company's historic cost of gas was inappropriate.

Services noted that the gas mix model was flawed and suggested that the Staff should not employ this program to evaluate a gas utility's supply purchasing decisions. Services agreed that it was appropriate to meet informally with gas utilities to discuss their gas purchasing techniques and should use the gas utility forecast to monitor gas purchasing practices. It agreed that it was appropriate to conduct an ongoing review of each utility's short-term purchasing decisions through PGA filings.

Services noted that the Staff's recommendation that only commodity gas costs should be allocated to interruptible customers for purposes of calculation of the PGA conflicted with Staff's recommendation that the ACA portion of the PGA should assign a proportionate share of demand and storage to all customer classes. Services maintained that flexibility in the frequency of PGA filings and assignment of costs were important to the success of any PGA policy.

Columbia also observed in its comments that flexibility in a PGA policy is important because no single program is equally suited for each utility. It urged the Commission to re-examine the Staff's proposals that PGA filings be made every quarter and the propriety of assignment of gas costs to classes or rate schedules in the context of a general rate case. The assignment of gas costs to classes or rate schedules concerned Columbia if that proposal was read to suggest that gas cost assignment percentages will be developed in the context of the general case and used without modification until re-established in some subsequent general case. Columbia noted that since there is frequently a period of more than one or two years between general rate cases the continued and unmodified use of historical percentages may result in distorted allocations of costs.

Columbia recommended that the Commission modify the Staff's proposal to allocate only commodity gas costs to interruptible customers, believing it appropriate to include all gas costs which would be avoided if that service were not available.

Columbia also recommended that all fixed monthly gas costs be recovered on an annualized basis over projected annual sales volumes. According to Columbia, this modification is necessary to prevent variations between winter and summer PGAs, leading to unacceptable and misleading prices for its customers.

Finally, Columbia supported application of the ACA to interruptible gas sold under nonflexible sales tariffs and an annual PGA. It argued that an annual PGA will promote stability and lower administrative costs.

Westvaco supported the Staff's report and noted that there should be an opportunity for interested parties to participate in the PGA review and request a formal proceeding if one is deemed necessary.

In its comments, United agreed generally with the Staff's report recommendations. It sought exemption from or modifications to recommendations concerning the PGA and refunds. United noted that FERC permits East Tennessee, United's interstate supplier, to change its rates to United on 24 hours notice. Hence, United did not believe quarterly PGA filings were appropriate.

VNG generally concurred with the Staff Report's recommendations in its comments. It suggested that the Staff's proposal to assign a proportionate share of demand and storage costs to all customer classes should be clarified. It observed that because interruptible customers would be excluded from the Actual Cost Adjustment mechanism proposed by Staff, it appeared that the interruptible customers should also be excluded from the assignment of demand and storage costs.

WNG also proposed that demand costs be recovered through the PGA in a manner which differs from that proposed by the Staff. It suggested that the demand costs be annualized at current quarter wholesale rates and spread over annualized firm sales.

VNG noted that Staff's proposal to use forecasted commodity costs to determine a quarterly PGA factor for flexible interruptible sales rates was inappropriate. VNG recommended that flexible interruptible sales rates should continue to be set monthly, utilizing the most current estimates of the weighted average commodity cost of gas. VNG explained that its proposal would result in more reliable gas rates and that a quarterly projection of commodity costs for these customers would limit VNG in flexing its rates and diminish the benefits of flexible interruptible rates.

The Division of Consumer Counsel recommended in its comments that the Commission should routinely survey all gas utilities on a random basis within a fixed period. The Division stated that the Commission should make a comparison of gas costs, conducted by measuring actual purchases against an objective standard using a market approach, contract analysis or portfolio method to ensure efficient purchases of gas at reasonable prices and conditions. The Division stated that an automatic adjustment clause was not warranted for purchased gas.

The Industrial Gas Users supported many of the Staff's recommendations. The Industrial Gas Users noted that the public service obligations of these utilities to customers taking interruptible sales or transportation service should be clarified. In particular the Industrial Gas Users noted that the "public service obligation" a utility does not owe an interruptible sales or transportation customer is the obligation to provide any assurance of firm backup gas supply. The Industrial Gas users maintained that the utility continues to owe all of its other public service obligations to such customers. Those obligations include the duty to interconnect and provide service under any failed tariff applicable to the customer.

The Industrial Gas Users stated that the Commission should require the offering of firm and interruptible standby sales service as service options and that costs to be flowed through the PGA should be narrowly defined. Finally, the Industrial Gas Users stated that parties representing the interests of customers and the Office of the Attorney General should have access to the five-year gas forecast and the Staff's reports filed with the Commission.

The WGL Companies filed their comments in which they expressed their general agreement with the Staff report's conclusions. They commented that if any modification was made to the gas utility five-year forecast that they would like the opportunity to comment on any proposed modification to the forecast before it is adopted for possible use in any rate or rule to show cause proceeding. The WGL Companies also proposed that the model PGA provision appearing as Appendix E to Staff's Report should be modified so that quarterly demand costs found in the PGA calculations could be annualized to avoid large swings in the PGA factor based on projected quarterly volumes. In addition, these Companies proposed that the PGA be inapplicable to interruptible customers because the Companies have flexible interruptible sales tariffs. The WGL Companies stated that the appropriate commodity cost of gas applicable to interruptible sales should be excluded the PGA calculation. The WGL Companies supported the Staff's recommendations in all other respects.

The Staff also filed comments which it requested to be considered as a supplement to and clarification of its September 22, 1988 Report. In its comments the Staff corrected Appendix E to its Report to remove some clerical errors appearing therein.

The Staff also noted that LDCs currently calculate their billing demands by dividing annual contract billing demand by twelve. Thus, demand costs are averaged equally over the twelve months of the PGA year. The Staff stated that while its proposed PGA clause specifies "estimated quantities," further discussions with LDCs revealed that it was unclear whether the "sum of the billing demands" within the proposed PGA meant quarterly estimates or simple quarterly averages. The Staff stated that this was important because a simple average of annual demand over four quarters would place a disproportionate amount of demand costs in summer quarter usage. Moreover, all Virginia LDCs are winter peaking, with winter sales far in excess of summer sales. The Staff stated that collection of identical portions of demand costs over such disparate sales volumes would cause significant price swings between winter and summer quarters. In addition, such a methodology would send artificial price signals in direct contradiction to appropriate cost-based price signals. To alleviate these problems, the Staff proposed to annualize gas costs as a fixed rate per unit of firm consumption over all four quarters. To reflect this change in and to make clerical corrections to the "PGA Terms and Conditions" found in Appendix E of its September 22, 1988 report, the Staff attached a revised Appendix E to its December 12 comments.

Analysis, Findings, and Conclusions

After review of the record developed herein and the applicable statutes, we agree with the commentators that the Staff has done a very complete and thorough analysis of the issues confronting local gas utilities and the Commission in the areas of gas purchasing, procurement practices, and gas cost recovery. We agree with Staff that stronger Commission oversight of gas purchasing practices is now appropriate, given the expanded menu of purchasing options available to local gas utilities. We agree that such oversight in concert with competition and appropriate rate design policies should act as incentives to ensure efficient gas purchasing by Virginia gas utilities.

We further find that it is appropriate that the Staff conduct informal meetings with larger gas utilities on an annual basis and smaller gas utilities biennially to discuss their gas purchasing techniques. We find it appropriate that an ongoing review of each utility's short-term purchasing decisions occur through PGA filings. We will expect our Staff to prepare formal reports for our review based on a detailed analysis of the five-year forecast, touching every major aspect of the utility's gas supply operations. The Staff will identify any problems or deficiencies in the purchasing program under review and should recommend, when appropriate, formal investigation of same within a rate proceeding or rule to show cause.

We believe the foregoing administrative review is more appropriate than a more formal proceeding. We are sensitive to the fine line that separates regulation from management of gas utility policies. Through our adoption of the foregoing procedure, we wish to encourage utility management to make market-responsive gas purchase and procurement decisions rather than decisions designed to secure our preapproval of a particular purchasing strategy. Our determination with regard to this procedure will not, of course, limit the right of interested parties to file a complaint or, alternatively, to raise issues, affecting a utility's gas purchasing practices, in a rate case.

The Industrial Gas Users and Westvaco have requested access to the materials filed as part of the informal gas

purchasing review. While information filed in the PGA short-term review is not privileged, some of the information filed in response to the five-year forecast data request ("data request") may be proprietary. Therefore, we will make a determination regarding the accessibility to the filed data on a case by case basis.

We further expect our Staff to work with the gas utilities which must respond to this data request as the Staff modifies that request. This will insure that the data requested is attainable and useful.

The most commented upon portions of the Staff report were those portions relating to the Staff's suggested uniform PGA and accompanying terms and conditions of service. The Staff recommended that only commodity gas costs should be allocated to interruptible customers for purposes of calculation of the PGA. Staff also recommended that the PGA clause of each local utility be modified to provide for projections of gas costs, allowing the inclusion of all interruptible sales in the calculation of the PGA and promoting improved pricing signals. Staff recommended that Pipeline be exempted from Staff's suggested uniform PGA. Columbia took issue with the Staff's proposal to allocate only commodity gas costs to interruptible customers. We believe that Staff is correct in its assertion that demand-related costs may be properly addressed during a rate proceeding as a part of base rates. We also agree that it is appropriate to exempt Pipeline from Staff's uniform provisions. No party filing comments suggested otherwise.

We also agree with Columbia and the WGL Companies that it is appropriate to clarify the Staff recommendation concerning ACA assignment of demand and storage costs to all customer classes. We believe that the ACA should assign a proportionate share of demand and storage costs to all firm customer classes.

Many of the parties have commented that it was inappropriate to recover demand costs through the PGA in the manner proposed in the Staff report. For example, Columbia suggested that fixed demand costs be recovered on an annualized basis over projected annual sales volumes. The Staff's supplemental comments on its report addressed the same issue, and agreed that fixed demand costs should be annualized for recovery. We agree that this revision is appropriate.

VNG, United, and Columbia criticized the Staff's proposal that PGA filings be made every quarter instead of monthly. We believe it is important to maintain a quarterly sequence of filings. A quarter should allow a "smoothing out" of erratic price swings, while maintaining a degree of accuracy in pricing signals. However, in the event that local gas utilities experience an aberration with regard to gas purchases or prices of such purchases, it can request leave to file on a monthly basis to correctly reflect its gas purchases.

United and the Industrial Gas Users have taken issue with the Staff's proposal that direct refunds should be made to larger customers who have alternate fuel or transportation capabilities on the basis of their actual consumption during the test period. United took the position in its comments that no large customer should receive refunds because it was administratively burdensome to do so. On the other hand, the Industrial Gas Users stated that all industrial customers should receive refunds for over-payment. In our opinion, the Staff's proposal represents an acceptable compromise between the positions taken by the commentators; therefore, we will accept the Staff's recommendation requiring direct refunds to large customers.

Finally, most of those commenting agreed that it was appropriate to adopt a policy that local gas utilities do not have a continuing public service obligation to interruptible customers not electing standby service. Generally, we agree with this proposition. Local utilities do not have the duty to procure long-term gas supplies for customers who choose an interruptible service option and who do not elect to take standby service. However, in all other respects, the duty owned by a local gas utility to an interruptible customer without standby service is the same as the public service duties owed to other gas customers.

Implementation of the Suggested PGA Revisions

Because the allocation factors suggested by the Staff Report may result in an increased allocation of gas costs to some customer classes and a decreased allocation to other classes, we believe that implementation of the Staff's suggested PGA methodology and allocation factors should take place as part of any rate filing made by a gas utility subject to our regulation.

In its comments, Columbia has requested guidance on how gas cost assignment percentages will be developed. It is our intent that the Staff develop allocation percentages each year at the time of the utility's ACA filing and employ concepts used during the course of the last general rate case to update those percentages.

This proceeding is an integral part of the regulatory adjustments required as we move to a more open and market sensitive natural gas industry. The fact that these procedures will be implemented without protracted litigation attests to the professional quality of the Staff and an environment allowing the parties to reach reasonable approaches to these challenges. We commend the Staff and parties to this proceeding.

Accordingly,

IT IS ORDERED that the recommendations contained in the September 22, 1988 Staff Report, as modified by the Staff's December 12, 1988 comments and the findings set forth above, are hereby adopted. The Staff's suggested change for PGA clauses, as revised herein, shall be implemented as a part of each gas utility's rate application. IT IS FURTHER ORDERED that there being

nothing further to be done herein, the same is hereby DISMISSED.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to: the Division of Consumer Counsel, Office of the Attorney General, 101 North 8th Street, Richmond, Virginia 23219; each gas utility subject to the jurisdiction of this Commission; Mark R. Kilduff, Department of Economic Development, 1000 Washington Building, Richmond, Virginia 23219; Stephen H. Watts, II, Esquire, McGuire, Woods, Battle & Boothe, One James Center, Richmond, Virginia 23219; Rodney W. Anderson, Esquire, Commonwealth Gas Services, Inc., P.O. Box 35800, Richmond, Virginia 23235-0800; Edward L. Flippen, Esquire, Mays & Valentine, P.O. Box 1122, Richmond, Virginia 23208; William S. Bilenky, Senior Assistant Attorney General, Office of Attorney General, Division of Consumer Counsel, 101 North 8th Street, Richmond, Virginia 23219; Jon Tyner, Allied Corporation, P.O. Box 20006R, Morristown, New Jersey 07960; Frank Piquet, Allied Corporation, Hopewell Plant, Route 10, Hopewell, Virginia 23860; Terry Orr, Anheuser-Busch Companies, Inc., One Busch Place, St. Louis, Missouri 67118; Roy S. Hollomon, BASF Fibers Corporation, P.O. Drawer D, Williamsburg, Virginia 23187; J. B. Rawlings, Brick & Tile Corporation, P.O. Box 45, Lawrenceville, Virginia 23868; Charles V. McLoud, Burlington Industries, Inc., P.O. Box 21207, Greensboro, North Carolina 27420; Gary B. Lowe, The Fairfax Hospital, 3300 Gallows Road, Falls Church, Virginia 22046; John Keenan, Griffin Pipe Products Co., 2000 Spring Road, Oak Brook, Illinois 60521; Jerry Cain, Hercules, Inc., Hercules Plaza, Wilmington, Delaware 19894, Bill McMichens, Kawneer Co., Inc., 1551 Country Club Road, Harrisonburg, Virginia 22801; Steve Terry, Meredith/Burda, P.O. Box 11829, Lynchburg, Virginia 24506; John V. Woellner, Ownes Illinois, Inc., One Seagate, Toledo, Ohio 43666; Kenneth A. Barry, Esquire, and John R. Amos, Esquire, Reynolds Metals Company, 6601 West Broad Street, Richmond, Virginia 23230; Henry Riewerts, Nabisco Brands, E. Hanover, New Jersey 07936; Tom Stevens, National Linen Service, 1180 Peachtree Street, N.E., Atlanta, Georgia 30309; Chris Runion, Rocco Feeds, Inc., P.O. Box 549, Harrisonburg, Virginia 22801; Allen M. Koleff, Vice President, Stone Container Corporation, 2150 Park Lake Drive, Suite 400, Atlanta, Georgia 30345; David L. Obenshain, Uniroyal, Inc., P.O. Box 9, Scottsville, Virginia 24590; William L. Pfost, Jr., Wayn-Tex, Inc., 901 S. Delphine Avenue, Waynesboro, Virginia 22980; David E. Baldwin, Westinghouse, Wire Division, P.O. Box 869, Abingdon, Virginia 24210; John Carrara, Esquire, and Peter F. Chamberlain, Westvaco, 299 Park Avenue, New York, New York 10171; Bruce A. Fortin, Weyerhaeuser Company, P.O. Box 1188, Chesapeake, Virginia 23320; C. R. Chandler, President and Chief Operating Officer, Virginia Fibre Corporation, P.O. Box 7, Gladstone, Virginia 24553; Dennis R. Bates, Esquire, and David T. Stitt, Esquire, 4100 Chain Bridge Road, Fairfax, Virginia 22030; Mike Nervie, c/o E. I. DuPont de Nemours, c/o Conoco, Inc., P.O. Box 2197, CH 1056, Houston, Texas 77252; Joan Walker-Ratcliff, Esquire, E. I. DuPont de Nemours, c/o Conoco, Inc., P.O. Box 1267, Ponca City, Oklahoma 74603; ICI Americas, Inc., Attn: Ray Dunham, P.O. Box 411, Hopewell, Virginia 23860; David B. Kearney, Esquire, 900 East Broad Street, No. 300, Richmond, Virginia 23219; Donald R. Hayes, Esquire, Washington Gas Light Company, 1100 H Street, N.W., Washington, D.C. 20080; Louis R. Monacell, Esquire, Christian, Barton, Epps, Brent & Chappell, 1200 Mutual Building, 909 East Main Street, Richmond, Virginia 23219-3095; Richard L. Belcher, Vice President, Gas Supply Commonwealth Gas Pipeline Corporation, P.O. Box 35800, Richmond, Virginia 23236-0800; Robert B. Wemyss, Vice President, Planning and Rates, Commonwealth Gas Services, Inc., P.O. Box 35800, 800 Moorefield Park Drive, Richmond, Virginia 23236-0800; David K. Dyck, Director, Regulations, and Steven R. Abbey, Sr., Regulatory Representative, ARCO Oil and Gas Company, Natural Gas Marketing, P.O. Box 2819, Dallas, Texas 75221; Irene A. Lowalczyk, Manager, Energy Purchasing, Westvaco, Westvaco Building, 299 Park Avenue, New York, New York 10171; David R. Lesher, Reynolds Metals Company, 6601 West Broad Street, Richmond, Virginia 23230; Everett Bennet, Owen-Brockway, P.O. Box 44058, Jacksonville, Florida 32231; Majorie H. Brant, Esquire, Columbia Gas of Virginia, Inc., P.O. Box 1197, Columbus, Ohio 43216-0117; Guy T. Tripp, III, Esquire, Hunton & Williams, P.O. Box 1535, Richmond, Virginia 23212; Richard D. Gary, Esquire, Hunton & Williams, P.O. Box 1535, Richmond, Virginia 23212; and to the Commission's Divisions of Energy Regulation, Accounting and Finance, and Economic Research and Development.

GOVERNOR'S COMMENTS ON PROPOSED REGULATIONS

(Required by § 9-6.12:9.1 of the Code of Virginia)

VIRGINIA HEALTH SERVICES COST REVIEW COUNCIL

Title of Regulation: **VR 370-01-001. The Rules and Regulations of the Health Services Cost Review Council.**

Governor's Comment:

I have no objection to the form or content of this proposal. My final assessment will depend upon a review of the comments received during the public comment period.

/s/ Gerald L. Baliles
Date: January 3, 1989

DEPARTMENT OF TAXATION

Title of Regulation: **VR 630-2-323.1. Individual Income Tax: Excess Cost Recovery.**

Governor's Comment:

No objection to the proposed regulations as presented. I encourage the Department of Taxation to consider carefully any comments received during the public comment period in order to ensure maximum clarity and equity in these regulations.

/s/ Gerald L. Baliles
Date: January 6, 1989

* * * * * * * *

Title of Regulation: **VR 630-3-323.1. Corporation Income Tax: Excess Cost Recovery.**

Governor's Comment:

No objection to the proposed regulations as presented. I encourage the Department of Taxation to consider carefully any comments received during the public comment period in order to ensure maximum clarity and equity in these regulations.

/s/ Gerald L. Baliles
Date: January 6, 1989

GENERAL NOTICES/ERRATA

Symbol Key †
† Indicates entries since last publication of the Virginia Register

DEPARTMENT OF AIR POLLUTION CONTROL (STATE AIR POLLUTION CONTROL BOARD)

Notice of Intended Regulatory Action

Notice is hereby given in accordance with this agency's public participation guidelines that the Department of Air Pollution Control intends to consider amending regulations entitled: **VR 120-01. Regulations for the Control and Abatement of Air Pollution.** The purpose of the proposed action is to provide the latest edition of the referenced technical and scientific documents and to incorporate newly promulgated federal New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants.

Statutory Authority: § 10.1-1308 of the Code of Virginia.

Written comments may be submitted until March 2, 1989.

Contact: Nancy S. Saylor, Policy and Program Analyst, Division of Program Development, Department of Air Pollution Control, P. O. Box 10089, Richmond, VA 23240, telephone (804) 786-1249 or SCATS 786-1249

CRIMINAL JUSTICE SERVICES BOARD

Notice of Intended Regulatory Action

Notice is hereby given in accordance with this agency's public participation guidelines that the Criminal Justice Services Board intends to consider amending regulations entitled: **Rules Relating to Compulsory Minimum Training Standards for Private Security Services Business Personnel.** The purpose of the proposed action is to amend and revise compulsory minimum training standards for private security services business personnel.

Statutory Authority: § 9-182 of the Code of Virginia.

Written comments may be submitted until February 2, 1989, to Lex T. Eckenrode, Department of Criminal Justice Services, 805 East Broad Street, Richmond, Virginia 23219.

Contact: Paula Scott, Staff Executive, Department of Criminal Justice Services, 805 E. Broad St., Richmond, VA 23219, telephone (804) 786-8730 or SCATS 786-8730

DEPARTMENT OF EDUCATION (STATE BOARD OF)

Notice of Intended Regulatory Action

Notice is hereby given in accordance with this agency's public participation guidelines that the Department of Education intends to consider amending regulations entitled: **Regulations Governing Pupil Transportation Including Minimum Standards for School Buses in Virginia.** The purpose of the proposed action is to (i) amend certain sections in Part II "General Regulations," Part III "Distribution of Pupil Transportation Funds," and Part V "Minimum Standards for School Buses in Virginia"; (ii) conform to the funding methodology in the 1988 Appropriations Act and to effect adjustments resulting from experience gained since promulgation of the current regulations.

Statutory Authority: §§ 22.1-16 and 22.1-176 of the Code of Virginia.

Written comments may be submitted until February 1, 1989.

Contact: R. A. Bynum, Associate Director, Department of Education, P. O. Box 6Q, Richmond, VA 23216, telephone (804) 225-2037 or SCATS 225-2037

DEPARTMENT OF SOCIAL SERVICES (STATE BOARD OF)

† Notice of Intended Regulatory Action

Notice is hereby given in accordance with this agency's public participation guidelines that the Department of Social Services intends to consider amending regulations entitled: **The Virginia Energy Assistance Program.** The department is planning to utilize policies and procedures implemented in the 1988-89 Energy Assistance Program for the 1989-90 Energy Assistance Program. Based on problems identified in the 1988-89 program procedural modifications will occur. Regulatory requirements are contained in Title VI of the Human Services Reauthorization Act of 1984 (P. L. 98-558).

Statutory Authority: § 63.1-25 of the Code of Virginia.

Written comments may be submitted until March 1, 1989, to Guy Lusk, Director, Division of Benefit Programs, Department of Social Services, 8007 Discovery Drive, Richmond, VA 23229-8699.

Contact: Charlene H. Chapman, Supervisor, Energy and Emergency Assistance Unit, Division of Benefits Programs, Department of Social Services, 8007 Discovery Drive, Richmond, VA 23229-8699, telephone (804) 662-9040 or SCATS 662-9040

Notice of Intended Regulatory Action

Notice is hereby given in accordance with this agency's public participation guidelines that the Department of Social Services intends to consider amending regulations entitled: **VR 615-01-15. Aid to Dependent Children - Unemployed Parent Demonstration (ADC-UP Demo) Project.** The purpose of the proposed regulation is to continue to operate the Aid to Dependent Children - Unemployed Parent Demonstration (ADC-UP Demo) Project to provide financial assistance to needy two-parent families.

Statutory Authority: § 63.1-25 of the Code of Virginia.

Written comments may be submitted until February 1, 1989, to Guy Lusk, Director, Division of Benefit Programs, 8007 Discovery Drive, Richmond, Virginia 23229-8699.

Contact: Barbra Caris, Program Specialist, Department of Social Services, 8007 Discovery Dr., Richmond, VA 23229-8699, telephone (804) 662-9046 or SCATS 662-9046

COMMISSION ON VIRGINIA ALCOHOL SAFETY ACTION PROGRAM (VASAP)

† Notice of Intended Regulatory Action

Notice is hereby given that the Commission on Virginia Alcohol Safety Action Program (VASAP) intends to consider promulgating regulations entitled: **Commission on VASAP Policy and Procedure Regulations.** The purpose of the proposed action is to promulgate regulations and adopt the above-mentioned manuals pursuant to the Administrative Process Act, the Governor's E.O. No. 5(86) and the Virginia Register Act, conforming to the Procedure and Style Manual of the Virginia Code Commission.

Statutory Authority: § 18.2-271.2 of the Code of Virginia.

Written Comments may be submitted until March 1, 1989, to Kim Morris Executive Assistant, Commission on VASAP, 1001 East Broad Street, Box No. 28, Old City Hall Building, Richmond, VA 23219.

Contact: Kim Morris, Executive Assistant or Donald R. Henck, Ph.D, Executive Director, Commission on VASAP, 1001 E. Broad St., Old City Hall Bldg., Box No. 28, Richmond, VA 23219, telephone (804) 786-5895 or SCATS 786-5895

DEPARTMENT OF WASTE MANAGEMENT

Notice of Intended Regulatory Action

Notice is hereby given in accordance with this agency's public participation guidelines that the Department of Waste Management intends to consider amending regulations entitled: **VR 672-10-1. Virginia Hazardous Waste Management Regulations.** The purpose of the proposed action is to update the Virginia regulations to include changes in the federal RCRA regulations contained in Parts 260 through 270, Title 40, Code of Federal Regulation.

Statutory Authority: Chapter 14 of Title 10.1 of the Code of Virginia.

Written comments may be submitted until March 1, 1989.

Contact: W. Gulevich, Director, Division of Technical Services, Department of Waste Management, 101 N. 14th St., Richmond, VA 23219, telephone (804) 225-2975 or SCATS 225-3975

STATE WATER CONTROL BOARD

† Notice of Intended Regulatory Action

Notice is hereby given in accordance with this agency's public participation guidelines that the State Water Control Board intends to consider amending regulations entitled: **VR 680-21-08. River Basin Section Tables, Water Quality Standards.** The purpose of the proposed action is to revise the stream class designation of Stony Creek, § 1, New River Basin. The proposed amendment would impact one existing discharger. That discharger, APG Lime Corporation, would be allowed to use chlorine for disinfection if the stream classification is amended, as proposed. Otherwise, APG Line Corporation would be required to install an alternative form of disinfection.

The proposed action is authorized by the statute cited below and is governed by the State Water Control Law, the State Water Quality Standards, the Permit Regulation, and § 303 of the Clean Water Act.

Statutory Authority: § 62.1-44.15 (3) of the Code of Virginia.

Written comments may be submitted until 4 p.m. on Friday, February 17, 1989.

Contact: Elleanore Moll, Environmental Program Planner, State Water Control Board, P. O. Box 11143, Richmond, VA 23230, telephone (804) 367-6418 or SCATS 367-6418

GENERAL NOTICES

COUNCIL ON THE ENVIRONMENT

† Public Notice

This is PUBLIC NOTICE of the intention of the Council on the Environment to include 1988 legislative changes to the Shoreline Erosion and Beach Preservation Act and the State Water Control Law, and designation of the Lower James River as a Historic River in Virginia's Coastal Resources Management Program.

Virginia's Coastal Resources Management Program (VCRMP) was approved under the Federal Coastal Zone Management Act in October 1986. The program is a network of existing state agencies and their regulations and policies coordinated to provide for environmentally sound development and resource conservation in Tidewater Virginia. Virginia's Tidewater area is described in Executive Order 13 as all those counties and localities which, in whole or in part, lie east of the "fall line." The Council on the Environment, under the Secretary of Natural Resources, manages the program.

These legislative changes are being considered routine program implementations (RPIs) rather than program amendments because they constitute further detailing of the VCRMP rather than substantial changes to the enforceable and advisory policies of the program.

These RPIs are described briefly below:

RPI No. 1 - Inclusion of the 1988 amendment to the Shoreline Erosion and Public Beach Preservation Act. Section 10.1-704 gives priority consideration to beaches of the Commonwealth as disposal sites for dredged material determined by the Secretary of Natural Resources to be suitable for beach nourishment.

RPI No. 2 - Inclusion of the 1988 amendments to the State Water Control Law. These amendments added definitions of "pretreatment requirements" and "pretreatment standards"; expanded the list of who may be issued special orders to cease polluting to include those owners of treatment works who violated terms of pretreatment permits and to owners who have contravened any applicable pretreatment standard or requirement; added a provision for payment of civil charges for past violations; and declared unlawful the failure to comply with a pretreatment condition incorporated into the permit or failure to comply with any pretreatment standard or requirement.

RPI No. 3 - The addition of Chapter 4.1 in Title 10.1 of Virginia's Conservation Law which declares the Lower James River a Historic River. Chapter 4.1 provides for the creation of an Advisory Committee to review plans for use and development of water and related land uses which may change the character of a waterway or destroy its historic, scenic or ecological value. The Department of Conservation and Historic Resources is responsible for assuring that the purposes of this chapter are achieved.

Public comment on these changes, including but not limited to their content and inclusion as RPIs rather than amendments should be directed within three weeks to:

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Office of Ocean and Coastal Resources Management
Washington, D.C. 20235
Attn: Director, OCRM

The formal text of these RPIs, comments by affected state agencies, and copies of the VCRMP program document may be viewed at the above address and at the Council office, 903 Ninth Street Office Building, Richmond, VA 23219. For information please contact Laura McKay Lower, Coastal Resources Program Analyst at (804) 786-4500.

DEPARTMENT OF GENERAL SERVICES

REGISTRAR"S NOTICE: The ASBESTOS SURVEY STANDARDS printed below were developed by the Department of General Services pursuant to the requirements of § 2.1-526.14 of the Code of Virginia. These standards are for buildings other than school buildings and include the standards for the inspection of HOSPITALS (s 32.1-126.1 of the Code of Virginia); CHILD CARE CENTERS (§ 63.1-198.01 of the Code of Virginia); CONDOMINIUM CONVERSIONS (§ 55-79.94 of the Code of Virginia); and RENOVATION OR DEMOLITION OF BUILDINGS (§ 36-99.7 of the Code of Virginia).

† SURVEY STANDARDS FOR THE INSPECTION OF HOSPITALS FOR THE PRESENCE OF ASBESTOS

I. Definitions.

Abatement Contractor - company or individual properly licensed in the Commonwealth of Virginia who routinely conducts asbestos abatement activities such as, but not limited to removal, encapsulation or enclosure of asbestos containing materials in buildings.

Asbestos - means any material containing more than one percent of the asbestiform varieties of:

1. chrysotile (serpentine),
2. crocidolite (riebeckite),
3. amosite (cummingtonite-grunerite),
4. anthophyllite,
5. tremolite, or

6. actinolite.

Building Manager - contact person representing the owning entity at each facility.

Commissioner - shall mean the Commissioner, Virginia Department of Health.

Competent Personnel - personnel who are qualified by education and/or experience to determine the presence of asbestos and to assess its hazard, or to abate any such hazard by proper encapsulation, enclosure, removal, repair or operations and maintenance of the asbestos containing material and who are licensed by the Virginia Department of Commerce pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1. In addition, asbestos inspectors must meet the minimum competency requirements specified in Section IV(3) of these Standards.

Director - shall mean the Director, Office of Planning and Regulatory Services, Virginia Department of Health.

Encapsulation - the treatment of asbestos-containing materials with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

Enclosure - the construction or installation over or about the asbestos-containing material of any solid or flexible coverings, which will not deteriorate or decompose for an extended period of time, so as to conceal the material, contain all asbestos fibers and render the asbestos-containing material inaccessible.

Facility - Any building built prior to January 1, 1978 in which a hospital is located.

Friable - material which is capable of being crumbled, pulverized, or reduced to powder by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air.

Homogenous Material - Any material that appears similar in terms of color, texture, pattern, date of material application and functional use.

Inspector - individual who physically inspects each building for materials that may contain asbestos, who is properly licensed to conduct building inspections for asbestos by the Virginia Department of Commerce pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1 and who meets the additional requirements specified in Section IV(3) of these standards.

Management Planner - Individual who develops the plan to manage any identified or suspect asbestos containing materials in the facility, who is properly licensed by the Virginia Department of Commerce as an Asbestos Management Planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1.

Notification - Procedure used to inform building occupants and visitors of the location, description and condition of all asbestos containing materials identified or suspected in the facility and of the existence and location of a plan to manage the material.

Removal - the physical removal of asbestos-containing material from a building and disposal thereof in accordance with all applicable regulations.

Repair - cause friable asbestos-containing material to be changed or modified to a condition where it is not friable.

Response Actions - means any action, including removal, encapsulation, enclosure, repair, method of operation, maintenance, record keeping or notification that protects human health from building materials containing asbestos.

Significant Hazard Area - Means any area where the asbestos containing material is highly friable, where more than 10% of the material is exposed, where the damage is widespread and the area is accessible to occupants including by any air handling system.

Team Leader - individual who is properly licensed as an asbestos inspector and management planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1 and who meets the minimum requirements specified in Section IV(3)(B) of these standards.

Varying Visible Appearance - any visible difference in size, color, texture, degree of hardness, etc., which may indicate differing material. This term is synonymous with "visually distinct material."

II. Background.

There has been a growing public awareness of the link between the inhalation of asbestos fibers and various diseases such as asbestosis, mesothelioma, lung and other cancers. As a result, Legislation was enacted by the 1987 General Assembly (Article 5.2 Sect. 2.1-526.12 through 2.1-526.17) and was modified by the 1988 General Assembly which required the Department of General Services to develop survey standards for the inspection of buildings other than school buildings in order to identify the presence of asbestos and to the extent practicable the relative hazard to health or safety posed by any asbestos identified.

III. Purpose.

The primary purpose of these standards is to establish the minimum requirements, relevant to the inspection of each hospital facility for asbestos, the evaluation of the risk to human health, and the development of a specific schedule and plan to abate that risk prior to July 1, 1989 as is required by § 32.1-126.1 of the Virginia Code.

IV. Scope.

1. All hospitals shall be evaluated and a plan developed in accordance with the provisions of these standards after July 1, 1989.

2. Any building completed after January 1, 1978 is exempt from the requirements of these standards.

3. Minimum Competency Requirements.

A. Individuals conducting inspections of buildings for asbestos containing materials shall meet the following minimum requirements:

1) They shall have a valid Asbestos Inspector's License and Asbestos Management Planner's License issued by the Virginia Department of Commerce pursuant to the requirement of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1, and have either;

a) successfully completed a minimum of two (2) weeks of intensive field training under the direction of a Team Leader or;

b) have a minimum of two (2) years experience in conducting field assessment surveys for asbestos containing materials in buildings.

B. Individuals filling positions of Team Leader shall meet the following minimum requirements.

1) They shall possess, at a minimum, a college degree (A.S. or B.S.) in a physical science or related scientific field (e.g. biology, environmental science, engineering, geology, etc.), and

2) have a minimum of three years experience in conducting field assessment surveys for asbestos containing materials in buildings, and

3) have a valid Asbestos Inspector's License and Management Planner's License issued by the Virginia Department of Commerce pursuant to Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1.

V. Preliminary Assessment.

An initial assessment shall be made to determine which, if any, buildings were completed prior to January 1, 1978. Any disagreement shall be resolved by the Commissioner.

All buildings being used as a hospital must be evaluated before July 1, 1989 by competent personnel as defined herein unless they are deemed exempt by the Commissioner pursuant to Section IV.2 of these standards.

VI. Document Review and On-Site Survey

A review should be made of all appropriate building construction documents (i.e., floor plans, blueprints, microfilm record, previous inspection records, asbestos abatement projects, etc.) to facilitate the identification of areas where asbestos may be present if available. A basic sketch of the representative floor plan showing any major detail must be prepared to identify bulk sample locations and general asbestos material location.

Any on-site inspections must be conducted by competent personnel who have the training to identify the presence of asbestos, and to assess, to the extent practicable, the relative hazard or hazards to health and safety posed at each location at which asbestos is suspected or identified. Each on-site survey shall include at least the following and be documented in a report to the owners.

1. Visual Inspection - All accessible building areas and spaces shall be visually inspected, including but not limited to the following:

A. rooms, hallways, and offices

B. mechanical and electrical equipment rooms

C. pipe chases

D. basements

E. attics

F. the space above ceilings, between walls, and below floors

G. steam tunnels

H. stairwells

I. closets and storage areas

J. all occupied and unoccupied spaces

K. crawl spaces, including soil as appropriate

In addition, identify and document the location of all fire doors suspected of containing asbestos. These locations are to be designated on the building sketches and included in the inspection report.

Note: Areas where access is impossible or prohibitive should be identified on the building sketches. In the plan a notation must be made as to why the areas could not be investigated. All materials in these areas are to be considered to contain asbestos and must be included in the plan. The area must be evaluated according to the requirements of these standards when the area becomes accessible but before occupation.

2. Bulk Sampling - representative bulk sampling of suspected asbestos-containing materials shall be conducted and submitted to a laboratory meeting the minimum requirements found in Section VII of these standards.

All sample areas shall be clearly marked and a permanent identification number corresponding to the respective samples and shall be identified on copies of the available construction drawings or the building sketches prepared by the inspector.

A. Representative samples of each distinct type of friable asbestos material as defined herein shall be collected to confirm its asbestos content unless it is assumed to contain asbestos. Distinction between types of material shall be based on at least the following criteria:

1) visual appearance, size;

2) texture and hardness;

3) functional use, including but not limited to insulation, ceilings, walls, boilers, tanks, furnace, other mechanical equipment, ceiling pipes, pipe wrapping, elbow material, valve material, structural members, decks, beams, duct materials, fire doors and/or stage curtains.

4) information provided by documents, interviews, or any source as to prior renovation or patchwork.

B. The minimum number of samples to be taken for each distinct type of suspected asbestos material shall be as follows:

1) Sprayed or troweled material - three random samples for each visually or functionally different material or known different application for up to 1,000 sq. ft., five random samples from 1,000 to 5,000 sq. ft., seven random samples from 5,000 to 10,000 sq. ft., and for every 5,000 sq. ft. over 10,000 sq. ft. one additional random sample will be taken. This rule applies to homogeneous material on each floor only.

2) Pipe and duct insulation - a minimum of one sample for every 150 linear feet of material of varying size or visual appearance per floor. Samples shall be taken where material is damaged or exposed where possible, to avoid breaching intact covering.

3) Valve or fitting muds - three samples of valve material or elbow mud for each insulated line of varying diameter or visual appearance per floor or area.

4) Boilers, tanks, and furnaces - three samples per unit if homogeneous.

5) Patchwork - one sample of each patch or repair.

6) Ceiling or acoustical tile - three samples for each material of varying visible appearance per floor.

7) Other friable materials - as determined as necessary by the inspector - but at least two samples per homogenous material per floor.

8) If the friable material is not sampled but assumed to contain asbestos, then the inspector must complete the hazard assessment using 100% asbestos as the asbestos content value.

9) If the suspected asbestos-containing material is not friable as defined herein, a sample need not be taken. The location, type, and condition of the material shall be noted on the building layout documents or sketches provided by the inspector. The material shall be labeled according to the requirements of Section X for suspect material. These materials must be included in the specified schedule and plan and must be included in the Priority Level IV Response Action category.

C. Selection of sample location:

1) For sprayed on or troweled on material, the EPA guidelines located on pages 15-27 in "Asbestos - Containing Materials in School Buildings - Guidance for Analytical Programs" will be followed.

2) For other types of uses, visually distinct materials will be sampled.

D. Bulk Sample Size:

1) Samples shall be taken to penetrate all layers of the material. Samples should contain at least 15 cubic centimeters of material, and shall be placed in a container and sealed at the time of collection.

E. Sampling Precautions:

All precautions shall be taken to prevent exposure to those present in or around the facility during the collection of samples. The survey team is responsible for protecting occupants of the area and for patching the sampling area.

1) All sampling shall be conducted when building occupants are not in the immediate area, and preference shall be given to time when the areas being sampled are not in use.

When it is not possible to collect samples during a time when the facility is not being used, advance arrangements shall be made to evacuate the immediate sampling area(s) for the time necessary to collect the samples. The building manager is responsible for insuring that evacuation takes place.

2) Proper procedures and equipment shall be used during sampling to minimize fiber generation.

3) Area Protection and cleanup:

Care should be taken to minimize fiber release; however, any visible debris or residue generated during the sampling shall be thoroughly removed by wet wiping the debris or HEPA vacuuming. An area at least 4 feet in each direction shall also be cleaned using the above methods.

4) Locations from which samples are taken shall be patched as soon as the sampling has been completed by using methods and materials which are acceptable to the Project Manager and which are both structurally sound and aesthetically compatible. Each such location may be treated by low pressure application of an approved encapsulation.

5) When samples are taken in areas where the material is in poor condition, care must be taken to prevent further deterioration or fiber release.

a. The sample location will be adequately patched to prevent fiber release or deterioration by the inspector unless otherwise noted by the Building Manager in writing.

VII. Bulk Sample Analysis.

1. Samples shall be analyzed by polarizing light microscopy using the EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020).

2. The inspector shall submit bulk samples for analysis to a laboratory that successfully participates in the National Institute of Standards and Technology (NITS) or an approved equivalent Quality Assurance Program, and have certification/accreditation by the American Industrial Hygiene Association.

3. Sample Submissions:

A. Laboratory Analyst: Each analyst must have successfully completed a course in basic asbestos analysis, similar to that offered by Walter C. McCrone Associates of Chicago, Illinois. In addition, each analyst must have six months of on-the-job training with an analyst found acceptable through the NITS Quality Assurance Program/National Voluntary Laboratory Accreditation Program (NVLAP), or an approved equivalent.

VIII. Relative Exposure Potential Assessment.

Each location where the presence of asbestos is suspected or identified shall be evaluated using the algorithm found in Appendix A.

The Building Manager will be notified immediately by the inspector if significant hazard area is discovered. This notification may be verbal initially but must be reduced to writing within 24 hours.

IX. Assessment of Conditions and Prioritization for Remedial Action.

Upon completion of the on-site inspections and the calculation of the Relative Exposure Potential Assessment, recommendations shall be made regarding future response actions.

A number of factors are used to determine the exposure number and, subsequently, the priority level. One of the most important factors among those listed in Appendix A of this Standard is the friability factor. Friability is the ability to crumble, pulverize, or powderize a dry material by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air. The determination of friability is straight forward and is explained in Appendix A of this Standard. Friability is a multiplicative factor and can increase the final exposure number as much as 33% to 100%.

Another factor important in determining exposure potential is the mechanism for fiber transportation. This transport mechanism may be an air plenum or it can be the simple opening and closing of a door. High occupant activity can cause fibers to be become entrained, and even water damage can be a means of fiber transport. A number of the factors mentioned above are addressed in the field and scored on the algorithm. One of the most serious situations is to have a highly friable material in a non-ducted supply air plenum. Another serious concern is to have a highly friable material in a return air plenum. No matter what the transport mechanism is, corrective procedures will need to be designed and implemented to reduce or eliminate the transportation of fibers.

Five (5) priority levels have been defined for those areas found to contain asbestos. These Priority Levels are a function of the exposure number. (For explanation of exposure numbers, please see Appendix A.) A priority ranking is an excellent means of designing a phased abatement program.

The following is a detailed explanation of each priority level:

Significant Hazard Area - Areas placed in this category are those that are considered to pose a significant potential hazard to human health. The proper response to this priority is to immediately isolate the area and repair, encapsulate, enclose or remove the material before access is allowed. Any response other than removal must leave the material not accessible or not friable.

Priority Level I.

Areas placed in this Priority category are those that are felt to pose a high exposure potential. Materials in these areas are usually in very poor condition with material possibly laying about on the floor. However, there is the possibility for the material to be in good condition and

still exhibit a high potential for exposure, depending on other factors such as friability, accessibility, air movement and vibration. Fireproofing is a material that can exhibit this condition. These are the areas that should be addressed first.

The response action recommended for items in this level are to repair the material by encapsulation, enclosure or by any other means which will render the material not friable and to institute a plan designed to insure that the material does not become friable, or remove the material using competent, licensed personnel.

Priority Level II:

Areas listed in this level have materials that are not in as poor condition as those listed in Priority Level I but still pose a relatively high potential for exposure. In some cases the difference between a Priority Level I area and Priority Level II may be access to the area and the material. The corrective action plan for these areas should be to properly repair of the material and to institute a plan to insure that the material does not become friable, or remove the material using competent, licensed personnel.

Priority Level III:

These areas pose a moderate exposure potential; however, with time these materials will deteriorate and should be abated. Corrective action should be aimed at eliminating the factors causing the material to deteriorate and to making repairs. A plan will be necessary to monitor the condition of these materials to insure that they do not become friable after repairs are made.

Priority Level IV:

These materials currently have a relatively low exposure potential. Make minor repairs to the material and institute a plan to insure the material remains not friable or remove the material using competent, licensed personnel.

Determination of Priority Levels:

The determination of Priority Level I areas and Priority Level II areas is based on considerable experience and compiled with standard, recognized approaches to prioritization based on industry standards.

The Priority Levels are graduational by design. An area that falls in the upper portion of Priority Level II should be considered to pose a higher exposure potential than an area that falls in the lower portion of Priority Level II.

Finally, it is strongly recommended that in any area that is scheduled to undergo renovation or demolition, a complete survey be conducted to confirm the asbestos content of all suspect materials that could contain asbestos. Materials that contain asbestos must be removed prior to commencement of any renovation or demolition work in which the asbestos containing material will be disturbed by the project. Any removal of asbestos-materials must be by personnel properly licensed by the Department of Commerce.

X. Signs/Labels/Notification.

Every location at which asbestos is suspected or identified shall be clearly marked with suitably designed signs or labels or the building occupants shall be notified of the location and condition of the asbestos containing material within the building and the existence of a plan for its management, in writing.

1. Every mechanical room where asbestos is identified shall have at least one sign located in a conspicuous place at each entrance which contains appropriate wording (e.g., WARNING CEILING MATERIAL CONTAINS ASBESTOS. DO NOT DISTURB).

2. Locations containing any materials identified or suspected to contain asbestos shall be reported in order to provide a permanent record for future reference by the facility and shall be included in the plan.

3. All thermal system insulation with suspected or known asbestos-containing materials shall be labeled accordingly (e.g., WARNING SUSPECTED ASBESTOS. DO NOT DISTURB). The labels shall be painted on or affixed to the insulation or covering in a color that contrasts with the color of the material at intervals that would prevent someone from disturbing the material without knowing that it does or is likely to contain asbestos.

XI. Certification.

To determine compliance, documentation shall include at a minimum;

1. Qualifications of Inspector.

2. Qualifications of Laboratory and Analyst.

3. Documentation necessary to determine that the survey was conducted according to these standards.

4. Proposed action to comply with unmet requirements

XII. Plan.

For those facilities where any action short of immediate removal has been recommended, the inspector shall develop a plan to manage the potential hazard. The plan shall include at a minimum:

a. A timetable and recommended response actions to be used to abate any risk to human health discovered during the survey.

b. Details for identifying and visually marking all asbestos in accordance with these standards.

c. Procedures for the written notification of persons occupying and/or using the facility as to the location and condition of the asbestos materials found in the facility and that a plan to manage the material has been implemented and its location.

d. A program for training persons who may be required to work on or in the vicinity of asbestos.

e. A program for notifying contractors as to the location of any known or suspected asbestos in the facility and control measures required to protect employees and building occupants.

f. An inspection procedure and training requirements for persons to conduct quarterly maintenance inspections to identify any change in the friability or accessibility of each identified or suspect material within the facility.

g. A written description of the location where each sample was obtained, a copy of the laboratory report and a copy of the relative hazard assessment conducted for that material.

h. Signature of the inspector, the date of the survey, the date the report is submitted and the applicable license numbers required by this standard.

APPENDIX A

Instructions For Use Of The 20-Variable Algorithm

The 20-variable algorithm is an expansion on the old EPA or Sawyer algorithm. Where the primary variables are identical to the Sawyer algorithm, the first 6 variables have 2 sub-variable used to adjust the subjective or general score. The subjective or general score can be adjusted to represent a more accurate reflection of the true value of that general variable.

ASSESS EACH OF THE FACTORS

Carefully consider each of the following seven factors (the eighth factor, asbestos content, must be determined from laboratory reports) and record your observations:

FACTOR ONE. MATERIAL CONDITION:

The condition of the asbestos-containing material is the most important indicator of whether fibers have been released in the past or may be released in the future.

An assessment of the condition should evaluate: the quality of the installation, the adhesion of the material to the underlying substrate, deterioration, destruction of the material by water, vandalism which has damaged the material, and any other damage. Evidence of debris on horizontal surfaces, material hanging, dislodged chunks, scrapings, indentations, or cracking are indicators of poor material condition.

Condition is closely related to other factors considered in the assessment inspection: if the asbestos-containing material is accessible, it is likely to be damaged; if the activity level is high in the area, the level of damage may be high; and materials which are exposed may be more likely to sustain damage.

Accidental or deliberate physical contact with the material can result in damage to the asbestos-containing material. Inspectors should look for any evidence that the asbestos-containing material has been disturbed such as finger marks in the material, graffitti, pieces dislodged or missing, scrape marks from movable equipment or furniture, or accumulation of the friable material of floors, shelves, or other horizontal surfaces.

Asbestos-containing material may deteriorate as a result of the quality of the installation as well as environmental factors which affect the cohesive strength of the asbestos-containing material or the strength of the adhesion to the substrate. Deterioration can result in dusting of the surface of the asbestos-containing material, delamination of the material (i.e., separating into layers), or an adhesive failure of the material where it pulls away from the substrate and either hangs loosely or falls to the floor and exposed the substrate. Inspectors should touch the asbestos-containing material and determine if dust is released when the material is lightly brushed or rubbed. If the coated surface "gives" when slight hand pressure is applied or the material moves up and down with light pushing, the asbestos-containing material is no longer tightly bonded to its substrate.

FACTOR ONE: MATERIAL CONDITION

This factor is comprised of three levels:

A. NO DAMAGE: Material is intact and shows no sign of deterioration.

NUMERICAL VALUE: 0

B. MODERATE DAMAGE - SMALL AREAS: Through visual inspection and physical contact there are indications that 10% or less of the material is breaking up into layers or beginning to fall. There may be small areas where the material is deteriorating. There may be signs of accidental or intentional damage.

NUMERICAL VALUE: 2

C. WIDESPREAD SEVERE DAMAGE: Greater than 10% of the material is damaged. Large pieces are dislodged and/or debris in the area is evident. Parts of the material may be suspended from the ceilings or may have fallen to the floor. Evidence of severe accidental or intentional damage.

NUMERICAL VALUE: 5

After the subjective score is determined for material condition based on the standard EPA guidelines for determining such, the score should be adjusted up 1 point or down 1 point depending on the building area age. If the age of the material and/or building in question is greater than 30 years, the objective variable is increased by 1. If the area age is less than 15 years, it is subtracted by 1. If the age is between 15 and 30 years, the score does not change. Then if the type of material, in particular pipe coverings, is a magnesium or calcium silicate preformed pipe which has a tendency to deteriorate more rapidly, the score is up by 1; and if the material type is corrugated air cell or paper product, it is reduced by 1. For ceiling plasters or fireproofing, if the material type is a more cementitious Monokote Type it is reduced by 1. If it is a cotton candy Cafco type blaze shield or sound shield, it is up by 1. For standard acoustical plaster materials, there is no change in the subvariable.

FACTOR TWO: WATER DAMAGE

Water damage is usually caused by roof leaks, particularly in buildings with flat roofs or a concrete slab and steel beam construction. Skylights can also be significant sources of leaks. Water damage can also result from plumbing leaks and water in the vicinity of pools, locker rooms, and lavatories.

Water can dislodge, delaminate, or disturb asbestos-containing materials that are otherwise in satisfactory condition and can increase the potential for fiber release by dissolving and washing out the binders in the material. Materials which were not considered friable may become friable after water has dissolved and leached out the binders. Water can also carry fibers as a slurry to other areas where evaporation will leave a collection of fibers that can become resuspended in the air.

Inspect the area for visible signs of water damage such as discoloration of the asbestos-containing material, stains on the asbestos-containing material, adjacent walls, or floor, buckling of the walls or floor, or areas where pieces of the asbestos-containing material have separated into layers (delaminated) or come loose and fallen down thereby exposing the substrate.

Close inspection is required. In many areas staining may only occur in a limited area while water damage causing delamination may have occurred in a much larger area. In addition, the water damage may have occurred since the original inspection for friable material was conducted causing new areas to become friable and require an assessment inspection.

Delamination is particularly a problem in areas where the substrate is a very smooth concrete slab. Check to see if the material "gives" when pressure is applied from underneath.

FACTOR TWO: WATER DAMAGE

This factor is comprised of three levels:

A. NO WATER DAMAGE: No water stains or evidence of the material being disturbed by water. No stains on the floor or walls to indicate past water damage.

NUMERICAL VALUE: 0

B. MINOR WATER DAMAGE: Small areas of the material or adjacent floor and/or walls show water stains and ceiling material may be slightly buckled. However, pieces have not fallen from the ceiling and the damage affects 10 percent or less of the material.

NUMERICAL VALUE: 1

C. MODERATE TO MAJOR WATER DAMAGE: Water has dislodged some of the material and caused the material to break away, or has become saturated and has the potential to fall, and/or greater than 10 percent of the material has been affected. Asbestos fibers have been carried from the asbestos-containing material by water and evaporation has occurred, and/or the fibers have been deposited on other surfaces.

NUMERICAL VALUE: 2

After the general subjective determination has been made, if the roof above the material is a sloped or hipped roof, the subjective is reduced by 1/2. If it is a flat roof and built-up it is increased by 1/2. If the substrate type is is metal or concrete, it is reduced by 1/2.

FACTOR THREE: EXPOSED SURFACE AREA

The amount of asbestos-containing material exposed to the area occupied by people can increase the likelihood that the material may be disturbed and determines whether the fibers can freely move through the area. An asbestos-containing material is considered exposed if it can be seen, i.e., if there are no physical barriers which must be moved in order to get to the material. For a material not to be exposed, the barrier must be complete, undamaged, and not likely to be removed or dislodged. An asbestos-containing material should be considered exposed if it is visible, regardless of the height of the material.

If the asbestos-containing material is located behind a suspended ceiling with movable tiles, a close inspection must be made of the condition of the suspended ceilings, the likelihood and frequency of access into the suspended ceiling, and whether the suspended ceiling forms a complete barrier or is only partially concealing the material.

Asbestos-containing material above a suspended ceiling is considered exposed if the space above the suspended ceiling comprises an air plenum. Suspended ceilings with numerous louvers, grids or other open spaces should be considered exposed. This factor is comprised of three

levels:

FACTOR THREE: EXPOSED SURFACE AREA

A. MATERIAL NOT EXPOSED: Located above suspended ceiling. None visible without removing panels or ceiling sections. Suspended ceiling is not damaged.

NUMERICAL VALUE: 0

B. TEN PERCENT OR LESS OF THE MATERIAL IS EXPOSED: A few panels of a suspended ceiling have been removed. Spaces between ceiling tiles exist which would allow fibers to pass through the barrier.

NUMERICAL VALUE: 1

C. GREATER THAN 10 PERCENT OF THE MATERIAL IS EXPOSED.

NUMERICAL VALUE: 4

After the general determination is made, if there is an HVAC system that is part of the plenum area, the general determination is increased by 1. If there is no plenum but only an enclosed dead space, it is reduced by 1. If there is a semi- or permanent enclosure under the fireproofing or acoustical plaster isolating the mechanical system, the general determination is reduced by 1/2.

FACTOR FOUR: ACCESSIBILITY

If the friable asbestos-containing material can be reached by building users or maintenance people either directly or by impact from objects used in the area, it is accessible and subject to accidental or intention contact and damage. Material which is accessible is most likely to be disturbed in the future.

Evidence of degree of accessibility can also be determined by examining asbestos-containing surfaces for impact marks, gouges, scrapes, finger marks, items thrown into the material, etc. Even coated ceilings 25 feet high have been observed with pencils, pens, forks and other items stuck in the material. Also note such practices as stacking boxes from floor to ceiling. The top box may scrape the asbestos-containing coating off the ceiling when it is moved.

The proximity of the friable asbestos-containing material to heating, ventilation, lighting and plumbing systems requiring maintenance or repair may increase its accessibility.

In addition, the activities and behavior of persons using the building should be included in the assessment of whether the material is accessible. For example, persons involved in athletic activities may accidentally cause damage to the material on the walls and ceilings of gymnasiums through contact by balls or athletic equipment. To become fully aware of the uses of the building by its occupants, the inspector should consult with building staff or personnel familiar with routine building activities. This factor is comprised of three levels:

ACCESSIBILITY

A. NOT ACCESSIBLE: The material is located above a tight suspended ceiling or is concealed by ducts or piping. The building occupants cannot contact the material.

NUMERICAL VALUE: 0

B. RARELY ACCESSIBLE: The material is contacted only during abnormal activity such as infrequent maintenance or repair of nearby heating ventilation, lighting or plumbing systems. Building occupants rarely touch the material or throw objects against it.

NUMERICAL VALUE: 1

C. HIGHLY ACCESSIBLE: Material is contacted frequently due to routine maintenance. The building occupants can contact the material during normal activity at which time they routinely touch and dislodge the materials or throw objects against it.

NUMERICAL VALUE: 4

If the ceiling height or material height is greater than 9 1/2 feet, the subjective score is reduced by 1. If it is under 9 1/2 feet it is increased by 1. Since the building occupancy and use status tells us a great deal about how often the material is going to be accessed, we adjust the subjective determination by 1 1/2+ depending on the amount of occupancy.

Pipe chases, crawl spaces, attics and mechanical air handling rooms are reduced by 1 1/2, whereas major boiler rooms, classrooms, secretarial pools, or offices are increased by 1 1/2.

FACTOR FIVE: ACTIVITY AND MOVEMENT

The level of activity and movement in the vicinity of the asbestos-containing material can affect both the potential for disturbance of the material as well as the level of resuspension of the fibers which have come loose from the material. Consider not only the movement caused by the activities of people in the area but also movement from other sources such as high vibration from adjacent rooms, highways, etc.

Another source of vibration is sound, such as music and noise. Sound sets airwaves in motion in certain frequencies. As these sound waves impact on asbestos-containing material, they may vibrate this material and contribute to fiber release. Therefore fibers may be released to a greater extent in a band room, music practice room, or auditorium than in the remainder of the

building. Aircraft noise also has the ability to vibrate buildings; therefore, the inspector should determine if the building is in a direct flight path. It has been reported that in several schools whose ceilings were coated with asbestos-containing acoustical plaster, the band rooms were dustier than any other room in the school and granular material was deposited on floors and desks after music practice sessions.

The level of activity can best be described by identifying the purpose of the area as well as estimating the number of persons who enter the area on a typical day.

ACTIVITY AND MOVEMENT

A. NONE OR LOW ACTIVITY: This level would normally include areas such as administrative offices, libraries, and those classrooms where the population is quiet and non-destructive.

NUMERICAL VALUE: 0

B. MODERATE ACTIVITY: This level describes corridors, classrooms or other areas where activities exist that could create undue vibration. This vibration could result in fibers being released from the material into the immediate area.

NUMERICAL VALUE: 1

C. HIGH ACTIVITY LEVEL: This level may be found in cafeterias and corridors whose occupants are vandalous or disruptive in their activities. This also includes all gymnasiums, swimming pools and rooms containing machinery.

NUMERICAL VALUE: 2

After the subjective determination is made, we must determine whether there is sedentary or non-sedentary movement. If the room in question is a library or other sedentary work environments, the subjective variable is reduced by 1/2. However, if the area in question has a great deal of activity such as in a hallway, a boiler room, a maintenance shed, etc. the variable will be increased by 1/2. If the room in question in subject to sound or mechanical vibration such as in an auditorium or a band hall or in an air handling or boiler room where there are constant vibrations, the variable is up by 1/2. If the area in question contains no recognizable sound or mechanical vibrations, or if no air handling systems are on the roof of the area, the subjective variable is reduced by 1/2.

FACTOR SIX: AIR PLENUM OR DIRECT AIR STREAM

An air plenum exists when the return (or, in rare cases, conditioned) air leaves a room or hall through vents in a suspended ceiling and travels at low speed and pressure through the space between the actual ceiling and the suspended ceiling or ducts. In evaluating whether an air plenum or direct air stream is present the inspector must look for evidence of ducts or cavities used to convey air to and from heating or cooling equipment or the presence of air vents or outlets which blow air directly onto friable material.

A typical construction technique is to use the space between a suspended ceiling and the actual ceiling as a return air plenum. In many cases you will have to lift the tiles in the suspended ceiling to check if this is the case. Inspection of the air handling or HVAC equipment rooms may also provide evidence of the presence of this material in the plenums.

Special attention should be paid to whether activities such as maintenance frequently occur which would disturb the material in the plenum. Also any evidence that the material is being released or eroded (i.e. is it damaged or deteriorated so that the material is free to circulate in the airstream) such as accumulations of the material in the plenum should be noted. The presence of a direct air stream is indicated by discoloration of the asbestos coating in the vicinity of a vent or erosion patterns may be evident in the asbestos-containing material.

AIR PLENUM OR DIRECT AIR STREAM

A. NO AIR PLENUM OR DIRECT AIR STREAM PRESENT:

NUMERICAL VALUE: 0

B. AIR PLENUM OR DIRECT AIR STREAM PRESENT: Look for dust patterns deposited by an air stream on surfaces next to air supply diffusers. Fan rooms coated with asbestos-containing material may be contributing asbestos fibers to the building air if the circulation system draws air from such a coated room. Look for debris from the asbestos-containing material being deposited on dampers and filters of the air intake.

NUMERICAL VALUE: 1

After the general determination is made, we look at the velocity of the air flow if in fact there is an air flow. If the air flow is recognizable by human feeling rather than subtle, the variable is increased by 1/4. If it is non-recognizable it is reduced by 1/4. If the air flow is a constant, steady stream it, again, is reduced by 1/4; whereas if the air flow is an impact air flow such as through thermastatic action where large gusts of air impact the material from time to time it is increased by 1/4.

FACTOR SEVEN. FRIABILITY

The term "friable" is applied to dry material that can be crumbled, pulverized, or reduced to powder by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air. In

order to evaluate the friability of the material it should be touched. The asbestos-containing material can vary in degree of friability. The more friable the material, the greater the potential for asbestos fiber release and contamination. A material that contains asbestos can be expected to emit fibers during use or maintenance if the original integrity of the material has been disturbed.

FRIABILITY

A. NOT FRIABLE: Material that is hard and cannot be damaged by hand. An object is required to penetrate material. The material integrity has been maintained.

NUMERICAL VALUE: 0

B. LOW FRIABILITY: Material that is difficult yet possible to damage by hand. Material can be indented by forceful impact. If the granular, cementitious asbestos-containing material is rubbed, it leaves granules on the hand but no powder. Material integrity has been disturbed.

NUMERICAL VALUE: 1

C. MODERATE FRIABILITY: Fairly easy to dislodge and crush or pulverize. Material may be removed in small or large pieces. Material is soft and can easily be indented by hand pressure. The granular, cementitious asbestos-containing material leaves a powder residue on the hands when rubbed.

NUMERICAL VALUE: 2

D. HIGH FRIABILITY: The material is fluffy, spongy, or flaking and may have pieces hanging down. Easily crushed or pulverized by hand pressure. Material may disintegrate or fall apart when touched.

NUMERICAL VALUE: 3

FACTOR EIGHT: ASBESTOS CONTENT

The percentage for all types of asbestos present should be added for the total asbestos content. The numerical value is assigned based upon the report of analysis, not on appearance of the material.

With a high percentage of asbestos, there are more fibers that can be released and contaminate the building environment. Therefore, if certain areas are identical in their assessment using the other seven factors, this factor will be helpful in establishing priorities and indicating which area needs to be addressed first. This factor is comprised of three levels

A. TRACE AMOUNTS TO ONE PERCENT.

NUMERICAL VALUE: 0

B. GREATER THAN ONE PERCENT TO FIFTY PERCENT. Ceiling and wall coatings most frequently encountered in this category are the granular, cementitious acoustical plasters.

NUMERICAL VALUE: 2

C. FIFTY PERCENT TO ONE HUNDRED PERCENT. Most frequently materials containing over 50% asbestos were pipe and boiler wrapping or the fibrous, cotton candy, type sprayed-on insulation.

NUMERICAL VALUE: 3

Step 2: Exposure Number Calculation

The Exposure Number is derived from the Factor Scores by a formula. After entering the chosen Factor Scores on lines 1 through 8:

a) Sum factors 1 through 6 and enter opposite SUM;

b) Multiply factor 7 times factor 8, and enter opposite PRODUCT;

c) Multiply SUM times PRODUCT and enter opposite EXPOSURE NUMBER;

This number represents the result of your assessment for each area of the building. The values can range from 0 to 162. The higher the numerical value, the greater the potential for fiber release and therefore the more hazardous the situation. The Exposure Number must now be compared to the Corrective Action Scale, which is Step 3.

Step 3: Comparison of Exposure Number to Corrective Action Scale

Appendix B, Corrective Action Scale, presents five Priority Levels, and a range of Exposure Numbers for which that Priority Level is appropriate. Compare the Exposure Number derived in Step 2 to the Priority Levels in Appendix B. For example, an Exposure Number of 65 indicates that a Priority Level of I should be assigned. An Exposure Number of 10, however, indicates that a Priority Level of IV should be assigned. The proper response action for each Priority Level is found in Section IX of these standards.

APPENDIX B

CORRECTIVE ACTION SCALE

Priority Level	Exposure Number Range
I	61 - 16
II	40 - 6
III	20 - 3

IV	0 - 1
Significant Hazard Area	As Defined in Section IX

† SURVEY STANDARDS FOR THE INSPECTION OF CHILD CARE CENTERS FOR THE PRESENCE OF ASBESTOS

I. Definitions.

Abatement Contractor - company or individual properly licensed in the Commonwealth of Virginia who routinely conducts asbestos abatement activities such as, but not limited to removal, encapsulation or enclosure of asbestos containing materials in buildings

Asbestos - means any material containing more than one percent of the asbestiform varieties of:

1. chrysotile (serpentine);
2. crocidolite (riebeckite);
3. amosite (cummingtonite-grunerite);
4. anthophyllite;
5. tremolite; or
6. actinolite.

Building Manager - contact person representing the owning entity at each facility.

Commissioner - shall mean the Commissioner of the Department of Social Services.

Competent Personnel - personnel who are qualified by education and/or experience to determine the presence of asbestos and to assess its hazard, or to abate any such hazard by proper encapsulation, enclosure, removal, repair or operations and maintenance of the asbestos containing material and who are licensed by the Virginia Department of Commerce pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1. In addition, asbestos inspectors must meet the minimum competency requirements specified in Section IV(3) of these Standards.

Director - Shall mean the Director of the Divison of Licensing Programs, Department of Social Services.

Encapsulation - the treatment of asbestos-containing materials with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

Enclosure - the construction or installation over or about the asbestos-containing material of any solid or flexible coverings, which will not deteriorate or decompose for an extended period of time, so as to conceal the material, contain all asbestos fibers and render the asbestos-containing material inaccessible.

Facility - Any building built prior to 1978 in which a child-care center is located.

Friable - material which is capable of being crumbled, pulverized, or reduced to powder by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air.

Homogenous Material - Any material that appears similar in terms of color, texture, pattern, date of material application and functional use.

Inspector - individual who physically inspects each building for materials that may contain asbestos, who is properly licensed to conduct building inspections for asbestos by the Virginia Department of Commerce pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1 and who meets the additional requirements specified in Section IV(3) of these standards.

Management Planner - Individual who develops the plan to manage any identified or suspect asbestos containing materials in the facility, who is properly licensed by the Virginia Department of Commerce as an Asbestos Management Planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et.seq.) of Title 54.1.

Notification - Procedure used to inform building occupants and visitors of the location, description and condition of all asbestos containing materials identified or suspected in the facility and of the existence and location of a plan to manage the material.

Removal - the physical removal of asbestos-containing material from a building and disposal thereof in accordance with all applicable regulations.

Repair - cause friable asbestos-containing material to be changed or modified to a condition where it is not friable.

Response Actions - means any action, including removal, encapsulation, enclosure, repair, method of operation, maintenance, record keeping or notification that protects human health from building materials containing asbestos.

Significant Hazard Area - Means any area where the asbestos containing material is highly friable, where more than 10% of the material is exposed, where the damage is widespread and the area is accessible to occupants including by any air handling system.

Team Leader - individual who is properly licensed as an asbestos inspector and management planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et.seq.) of Title 54.1 and who meets the minimum requirements specified

in Section IV(3)(B) of these standards.

Varying Visible Appearance - any visible difference in size, color, texture, degree of hardness, etc., which may indicate differing material. This term is synonymous with "visually distinct material."

II. Background.

There has been a growing public awareness of the link between the inhalation of asbestos fibers and various diseases such as asbestosis, mesothelioma, lung and other cancers. As a result, Legislation was enacted by the 1987 General Assembly (Article 5.2 Sect. 2.1-526.12 through 2.1-526.17) and was modified by the 1988 General Assembly which required the Department of General Services to develop survey standards for the inspection of buildings other than school buildings in order to identify the presence of asbestos and to the extent practicable the relative hazard to health or safety posed by any asbestos identified.

III. Purpose.

The primary purpose of these standards is to establish the minimum requirements, relevant to the inspection of each facility for asbestos, the evaluation of the risk to human health, and the development of a specific schedule and plan to abate that risk before July 1, 1989.

IV. Scope.

1. All child-care centers shall be evaluated and a plan developed in accordance with the provisions of these standards before July 1, 1989.

2. Any building completed after January 1, 1978 is exempt from the requirements of these standards.

3. Minimum Competency Requirements:

A. Individuals conducting inspections of buildings for asbestos containing materials shall meet the following minimum requirements:

1) They shall have a valid Asbestos Inspector's License and Asbestos Management Planner's License issued by the Virginia Department of Commerce pursuant to the requirement of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1, and have either;

a) Successfully completed a minimum of two (2) weeks of intensive field training under the direction of a Team Leader or;

b) Have a minimum of two (2) years experience in conducting field assessment surveys for asbestos containing materials in buildings.

B. Individuals filling positions of Team Leader shall meet the following minimum requirements.

1) They shall possess, at a minimum, a college degree (A.S. or B.S.) in a physical science or related scientific field (e.g. biology, environmental science, engineering, geology, etc.);

2) Have a minimum of three years experience in conducting field assessment surveys for asbestos containing materials in buildings; and

3) Have a valid Asbestos Inspector's License and Management Planner's License issued by the Virginia Department of Commerce pursuant to Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1.

V. Preliminary Assessment.

An initial assessment shall be made to determine which, if any, buildings were completed prior to January 1, 1978. Any disagreement shall be resolved by the Commissioner.

All child-care centers must be evaluated before July 1, 1989 by competent personnel as defined herein unless they are deemed exempt by the Commissioner pursuant to Section IV.2 of these standards

VI. Document Review and On-Site Survey.

A review should be made of all appropriate building construction documents (i.e., floor plans, blueprints, microfilm record, previous inspection records, asbestos abatement projects, etc.) to facilitate the identification of areas where asbestos may be present if available. A basic sketch of the representative floor plan showing any major detail must be prepared to identify bulk sample locations and general asbestos material location.

Any on-site inspections must be conducted by competent personnel who have the training to identify the presence of asbestos, and to assess, to the extent practicable, the relative hazard or hazards to health and safety posed at each location at which asbestos is suspected or identified. Each on-site survey shall include at least the following and be documented in a report to the owners.

1. Visual Inspection - All accessible building areas and spaces shall be visually inspected, including but not limited to the following:

A. rooms, hallways, and offices

B. mechanical and electrical equipment rooms

C. pipe chases

D. basements

E. attics

F. the space above ceilings, between walls, and below floors

G. steam tunnels

H. stairwells

I. closets and storage areas

J. all occupied and unoccupied spaces

K. crawl spaces, including soil as appropriate.

In addition, identify and document the location of all fire doors suspected of containing asbestos. These locations are to be designated on the building sketches and included in the inspection report.

Note: Areas where access is impossible or prohibitive should be identified on the building sketches. In the plan a notation must be made as to why the areas could not be investigated. All materials in these areas are to be considered to contain asbestos and must be included in the plan. The area must be evaluated according to the requirements of these standards when the area becomes accessible but before occupation.

2. Bulk Sampling - representative bulk sampling of suspected asbestos-containing materials shall be conducted and submitted to a laboratory meeting the minimum requirements found in Section VII of these standards.

All sample areas shall be clearly marked and a permanent identification number corresponding to the respective samples and shall be identified on copies of the available construction drawings or the building sketches prepared by the inspector.

A. Representative samples of each distinct type of friable asbestos material as defined herein shall be collected to confirm its asbestos content unless it is assumed to contain asbestos. Distinction between types of material shall be based on at least the following criteria:

1) visual appearance, size.

2) texture and hardness.

3) functional use, including but not limited to insulation, ceilings, walls, boilers, tanks, furnace, other mechanical equipment, ceiling pipes, pipe wrapping, elbow material, valve material, structural members, decks, beams, duct materials, fire doors and/or stage curtains.

4) information provided by documents, interviews, or any source as to prior renovation or patchwork.

B. The minimum number of samples to be taken for each distinct type of suspected asbestos material shall be as follows:

1) Sprayed or troweled material - three random samples for each visually or functionally different material or known different application for up to 1,000 sq. ft., five random samples from 1,000 to 5,000 sq. ft., seven random samples from 5,000 to 10,000 sq. ft., and for every 5,000 sq. ft. over 10,000 sq. ft. one additional random sample will be taken. This rule applies to homogeneous material on each floor only.

2) Pipe and duct insulation - a minimum of one sample for every 150 linear feet of material of varying size or visual appearance per floor. Samples shall be taken where material is damaged or exposed where possible, to avoid breaching intact covering.

3) Valve or fitting muds - three samples of valve material or elbow mud for each insulated line of varying diameter or visual appearance per floor or area.

4) Boilers, tanks, and furnaces - three samples per unit if homogeneous.

5) Patchwork - one sample of each patch or repair.

6) Ceiling or acoustical tile - three samples for each material of varying visible appearance per floor.

7) Other friable materials - as determined as necessary by the inspector - but at least two samples per homogenous material per floor.

8) If the friable material is not sampled but assumed to contain asbestos, then the inspector must complete the hazard assessment using 100% asbestos as the asbestos content value.

9) If the suspected asbestos-containing material is not friable as defined herein, a sample need not be taken. The location, type, and condition of the material shall be noted on the building layout documents or sketches provided by the inspector. The material shall be labeled according to the requirements of Section X for suspect material. These materials must be included in the specified schedule and plan and must be included in the Priority Level IV Response Action category.

C. Selection of sample location:

1) For sprayed on or troweled on material, the EPA guidelines located on pages 15-27 in "Asbestos - Containing Materials in School Buildings - Guidance for Analytical Programs" will be followed.

2) For other types of uses, visually distinct materials will be sampled.

D. Bulk Sample Size:

1) Samples shall be taken to penetrate all layers of the material. Samples should contain at least 15 cubic centimeters of material, and shall be placed in a container and sealed at the time of collection.

E. Sampling Precautions:

All precautions shall be taken to prevent exposure to those present in or around the facility during the collection of samples. The survey team is responsible for protecting occupants of the area and for patching the sampling area.

1) All sampling shall be conducted when building occupants are not in the immediate area, and preference shall be given to time when the areas being sampled are not in use.

When it is not possible to collect samples during a time when the facility is not being used, advance arrangements shall be made to evacuate the immediate sampling area(s) for the time necessary to collect the samples. The building manager is responsible for insuring that evacuation takes place.

2) Proper procedures and equipment shall be used during sampling to minimize fiber generation.

3) Area Protection and cleanup:

Care should be taken to minimize fiber release; however, any visible debris or residue generated during the sampling shall be thoroughly removed by wet wiping the debris or HEPA vacuuming. An area at least 4 feet in each direction shall also be cleaned using the above methods.

4) Locations from which samples are taken shall be patched as soon as the sampling has been completed by using methods and materials which are acceptable to the Project Manager and which are both structurally sound and aesthetically compatible. Each such location may be treated by low pressure application of an approved encapsulation.

5) When samples are taken in areas where the material is in poor condition, care must be taken to prevent further deterioration or fiber release.

a. The sample location will be adequately patched to prevent fiber release or deterioration by the inspector unless otherwise noted by the Building Manager in writing.

VII. Bulk Sample Analysis.

1. Samples shall be analyzed by polarizing light microscopy using the EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020).

2. The inspector shall submit bulk samples for analysis to a laboratory that successfully participates in the National Institute of Standards and Technology (NITS) Quality Assurance Program or an approved equivalent Quality Assurance Program, and have certification/accreditation by the American Industrial Hygiene Association.

3. Sample Submissions:

A. Laboratory Analyst: Each analyst must have successfully completed a course in basic asbestos analysis, similar to that offered by Walter C. McCrone Associates of Chicago, Illinois. In addition, each analyst must have six months of on-the-job training with an analyst found acceptable through the NITS Quality Assurance Program/National Voluntary Laboratory Accreditation Program (NVLAP), or an approved equivalent.

VIII. Relative Exposure Potential Assessment.

Each location where the presence of asbestos is suspected or identified shall be evaluated using the algorithm found in Appendix A.

The Building Manager will be notified immediately by the inspector if significant hazard area is discovered. This notification may be verbal initially but must be reduced to writing within 24 hours.

IX. Assessment of Conditions and Prioritization for Remedial Action.

Upon completion of the on-site inspections and the calculation of the Relative Exposure Potential Assessment, recommendations shall be made regarding future response actions.

A number of factors are used to determine the exposure number and, subsequently, the priority level. One of the most important factors among those listed in Appendix A of this Standard is the friability factor. Friability is the ability to crumble, pulverize, or powderize a dry material by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air. The determination of friability is straight forward and is explained in Appendix A of this Standard. Friability is a multiplicative factor and can increase the final exposure number as much as 33% to 100%.

Another factor important in determining exposure potential is the mechanism for fiber transportation. This transport mechanism may be an air plenum or it can be the simple opening and closing of a door. High occupant activity can cause fibers to be become entrained, and even water damage can be a means of fiber transport. A number of the factors mentioned above are addressed in the field and scored on the algorithm. One of the most serious situations is to have a highly friable material in a

non-ducted supply air plenum. Another serious concern is to have a highly friable material in a return air plenum. No matter what the transport mechanism is, corrective procedures will need to be designed and implemented to reduce or eliminate the transportation of fibers.

Five (5) priority levels have been defined for those areas found to contain asbestos. These Priority Levels are a function of the exposure number.

(For explanation of exposure numbers, please see Appendix A). A priority ranking is an excellent means of designing a phased abatement program.

The following is a detailed explanation of each priority level:

Significant Hazard Area - Areas placed in this category are those that are considered to pose a significant potential hazard to human health. The proper response to this priority is to immediately isolate the area and repair, encapsulate, enclose or remove the material before access is allowed. Any response other than removal must leave the material not accessible or not friable.

Priority Level I.

Areas placed in this Priority category are those that are felt to pose a high exposure potential. Materials in these areas are usually in very poor condition with material possibly laying about on the floor. However, there is the possibility for the material to be in good condition and still exhibit a high potential for exposure, depending on other factors such as friability, accessibility, air movement and vibration. Fireproofing is a material that can exhibit this condition. These are the areas that should be addressed first.

The response action recommended for items in this level are to repair the material by encapsulation, enclosure or by any other means which will render the material not friable and to institute a plan designed to insure that the material does not become friable, or remove the material using competent, licensed personnel.

Priority Level II:

Areas listed in this level have materials that are not in as poor condition as those listed in Priority Level I but still pose a relatively high potential for exposure. In some cases the difference between a Priority Level I area and Priority Level II may be access to the area and the material. The corrective action plan for these areas should be to properly repair of the material and to institute a plan to insure that the material does not become friable, or remove the material using competent, licensed personnel.

Priority Level III:

These areas pose a moderate exposure potential; however, with time these materials will deteriorate and should be abated. Corrective action should be aimed at eliminating the factors causing the material to deteriorate and to making repairs. A plan will be necessary to monitor the condition of these materials to insure that they do not become friable after repairs are made

Priority Level IV:

These materials currently have a relatively low exposure potential. Make minor repairs to the material and institute a plan to insure the material remains not friable or remove the material using competent, licensed personnel.

Determination of Priority Levels:

The determination of Priority Level I areas and Priority Level II areas is based on considerable experience and compiled with standard, recognized approaches to prioritization based on industry standards.

The Priority Levels are graduational by design. An area that falls in the upper portion of Priority Level II should be considered to pose a higher exposure potential than an area that falls in the lower portion of Priority Level II.

Finally, it is strongly recommended that in any area that is scheduled to undergo renovation or demolition, a complete survey be conducted to confirm the asbestos content of all suspect materials that could contain asbestos. Materials that contain asbestos must be removed prior to commencement of any renovation or demolition work in which the asbestos containing material will be disturbed by the project. Any removal of asbestos-materials must be by personnel properly licensed by the Department of Commerce.

X. Signs/Labels/Notification.

Every location at which asbestos is suspected or identified shall be clearly marked with suitably designed signs or labels or the building occupants shall be notified of the location and condition of the asbestos containing material within the building and the existence of a plan for its management, in writing.

1. Every mechanical room where asbestos is identified shall have at least one sign located in a conspicuous place at each entrance which contains appropriate wording (e.g., WARNING CEILING MATERIAL CONTAINS ASBESTOS. DO NOT DISTURB).

2. Locations containing any materials identified or suspected to contain asbestos shall be reported in order to provide a permanent record for future reference by the facility and shall be included in the plan.

3. All thermal system insulation with suspected or known asbestos-containing materials shall be labeled accordingly (e.g., WARNING SUSPECTED ASBESTOS. DO NOT DISTURB). The labels shall be painted on or affixed to

the insulation or covering in a color that contrasts with the color of the material at intervals that would prevent someone from disturbing the material without knowing that it does or is likely to contain asbestos.

XI. Certification.

To determine compliance, documentation shall include at a minimum;

1. Qualifications of Inspector.

2. Qualifications of Laboratory and Analyst.

3. Documentation necessary to determine that the survey was conducted according to these standards.

4. Proposed action to comply with unmet requirements.

XII. Plan.

For those facilities where any action short of immediate removal has been recommended, the inspector shall develop a plan to manage the potential hazard. The plan shall include at a minimum:

a. A timetable and recommended response actions to be used to abate any risk to human health discovered during the survey.

b. Details for identifying and visually marking all asbestos in accordance with these standards.

c. Procedures for the written notification of persons occupying and/or using the facility as to the location and condition of the asbestos materials found in the facility and that a plan to manage the material has been implemented and its location.

d. A program for training persons who may be required to work on or in the vicinity of asbestos.

e. A program for notifying contractors as to the location of any known or suspected asbestos in the facility and control measures required to protect employees and building occupants.

f. An inspection procedure and training requirements for persons to conduct quarterly maintenance inspections to identify any change in the friability or accessibility of each identified or suspect material within the facility.

g. A written description of the location where each sample was obtained, a copy of the laboratory report and a copy of the relative hazard assessment conducted for that material.

h. Signature of the inspector, the date of the survey, the date the report is submitted and the applicable license numbers required by this standard.

APPENDIX A

Instructions For Use Of The 20-Variable Algorithm

The 20-variable algorithm is an expansion on the old EPA or Sawyer algorithm. Where the primary variables are identical to the Sawyer algorithm, the first 6 variables have 2 sub-variable used to adjust the subjective or general score. The subjective or general score can be adjusted to represent a more accurate reflection of the true value of that general variable.

ASSESS EACH OF THE FACTORS

Carefully consider each of the following seven factors (the eighth factor, asbestos content, must be determined from laboratory reports) and record your observations:

FACTOR ONE. MATERIAL CONDITION:

The condition of the asbestos-containing material is the most important indicator of whether fibers have been released in the past or may be released in the future.

An assessment of the condition should evaluate: the quality of the installation, the adhesion of the material to the underlying substrate, deterioration, destruction of the material by water, vandalism which has damaged the material, and any other damage. Evidence of debris on horizontal surfaces, material hanging, dislodged chunks, scrapings, indentations, or cracking are indicators of poor material condition.

Condition is closely related to other factors considered in the assessment inspection: if the asbestos-containing material is accessible, it is likely to be damaged; if the activity level is high in the area, the level of damage may be high; and materials which are exposed may be more likely to sustain damage.

Accidental or deliberate physical contact with the material can result in damage to the asbestos-containing material. Inspectors should look for any evidence that the asbestos-containing material has been disturbed such as finger marks in the material, graffitti, pieces dislodged or missing, scrape marks from movable equipment or furniture, or accumulation of the friable material of floors, shelves, or other horizontal surfaces.

Asbestos-containing material may deteriorate as a result of the quality of the installation as well as environmental factors which affect the cohesive strength of the asbestos-containing material or the strength of the adhesion to the substrate. Deterioration can result in dusting of the surface of the asbestos-containing material, delamination of the material (i.e., separating into layers), or an adhesive failure of the material where it pulls away from the substrate and either hangs loosely or falls to the floor and exposed the substrate. Inspectors should touch the asbestos-containing material and determine if dust is released when the material is lightly brushed or rubbed. If

the coated surface "gives" when slight hand pressure is applied or the material moves up and down with light pushing, the asbestos-containing material is no longer tightly bonded to its substrate.

FACTOR ONE: MATERIAL CONDITION

This factor is comprised of three levels:

A. NO DAMAGE: Material is intact and shows no sign of deterioration.

NUMERICAL VALUE: 0

B. MODERATE DAMAGE - SMALL AREAS: Through visual inspection and physical contact there are indications that 10% or less of the material is breaking up into layers or beginning to fall. There may be small areas where the material is deteriorating. There may be signs of accidental or intentional damage.

NUMERICAL VALUE: 2

C. WIDESPREAD SEVERE DAMAGE: Greater than 10% of the material is damaged. Large pieces are dislodged and/or debris in the area is evident. Parts of the material may be suspended from the ceilings or may have fallen to the floor. Evidence of severe accidental or intentional damage.

NUMERICAL VALUE: 5

After the subjective score is determined for material condition based on the standard EPA guidelines for determining such, the score should be adjusted up 1 point or down 1 point depending on the building area age. If the age of the material and/or building in question is greater than 30 years, the objective variable is increased by 1. If the area age is less than 15 years, it is subtracted by 1. If the age is between 15 and 30 years, the score does not change. Then if the type of material, in particular pipe coverings, is a magnesium or calcium silicate preformed pipe which has a tendency to deteriorate more rapidly, the score is up by 1; and if the material type is corrugated air cell or paper product, it is reduced by 1. For ceiling plasters or fireproofing, if the material type is a more cementitious Monokote Type it is reduced by 1. If it is a cotton candy Cafco type blaze shield or sound shield, it is up by 1. For standard acoustical plaster materials, there is no change in the subvariable.

FACTOR TWO: WATER DAMAGE

Water damage is usually caused by roof leaks, particularly in buildings with flat roofs or a concrete slab and steel beam construction. Skylights can also be significant sources of leaks. Water damage can also result from plumbing leaks and water in the vicinity of pools, locker rooms, and lavatories.

Water can dislodge, delaminate, or disturb asbestos-containing materials that are otherwise in satisfactory condition and can increase the potential for fiber release by dissolving and washing out the binders in the material. Materials which were not considered friable may become friable after water has dissolved and leached out the binders. Water can also carry fibers as a slurry to other areas where evaporation will leave a collection of fibers that can become resuspended in the air.

Inspect the area for visible signs of water damage such as discoloration of the asbestos-containing material, stains on the asbestos-containing material, adjacent walls, or floor, buckling of the walls or floor, or areas where pieces of the asbestos-containing material have separated into layers (delaminated) or come loose and fallen down thereby exposing the substrate.

Close inspection is required. In many areas staining may only occur in a limited area while water damage causing delamination may have occurred in a much larger area. In addition, the water damage may have occurred since the original inspection for friable material was conducted causing new areas to become friable and require an assessment inspection.

Delamination is particularly a problem in areas where the substrate is a very smooth concrete slab. Check to see if the material "gives" when pressure is applied from underneath.

FACTOR TWO: WATER DAMAGE

This factor is comprised of three levels:

A. NO WATER DAMAGE: No water stains or evidence of the material being disturbed by water. No stains on the floor or walls to indicate past water damage.

NUMERICAL VALUE: 0

B. MINOR WATER DAMAGE: Small areas of the material or adjacent floor and/or walls show water stains and ceiling material may be slightly buckled. However, pieces have not fallen from the ceiling and the damage affects 10 percent or less of the material.

NUMERICAL VALUE: 1

C. MODERATE TO MAJOR WATER DAMAGE: Water has dislodged some of the material and caused the material to break away, or has become saturated and has the potential to fall, and/or greater than 10 percent of the material has been affected. Asbestos fibers have been carried from the asbestos-containing material by water and evaporation has occurred, and/or the fibers have been deposited on other surfaces.

NUMERICAL VALUE: 2

After the general subjective determination has been made, if the roof above the material is a sloped or hipped roof, the subjective is reduced by 1/2. If it is a flat roof and built-up it is increased by 1/2. If the substrate type is is metal or concrete, it is reduced by 1/2.

FACTOR THREE: EXPOSED SURFACE AREA

The amount of asbestos-containing material exposed to the area occupied by people can increase the likelihood that the material may be disturbed and determines whether the fibers can freely move through the area. An asbestos-containing material is considered exposed if it can be seen, i.e., if there are no physical barriers which must be moved in order to get to the material. For a material not to be exposed, the barrier must be complete, undamaged, and not likely to be removed or dislodged. An asbestos-containing material should be considered exposed if it is visible, regardless of the height of the material.

If the asbestos-containing material is located behind a suspended ceiling with movable tiles, a close inspection must be made of the condition of the suspended ceilings, the likelihood and frequency of access into the suspended ceiling, and whether the suspended ceiling forms a complete barrier or is only partially concealing the material.

Asbestos-containing material above a suspended ceiling is considered exposed if the space above the suspended ceiling comprises an air plenum. Suspended ceilings with numerous louvers, grids or other open spaces should be considered exposed. This factor is comprised of three levels.

FACTOR THREE: EXPOSED SURFACE AREA

A. MATERIAL NOT EXPOSED: Located above suspended ceiling. None visible without removing panels or ceiling sections. Suspended ceiling is not damaged.

NUMERICAL VALUE: 0

B. TEN PERCENT OR LESS OF THE MATERIAL IS EXPOSED: A few panels of a suspended ceiling have been removed. Spaces between ceiling tiles exist which would allow fibers to pass through the barrier.

NUMERICAL VALUE: 1

C. GREATER THAN 10 PERCENT OF THE MATERIAL IS EXPOSED.

NUMERICAL VALUE: 4

After the general determination is made, if there is an HVAC system that is part of the plenum area, the general determination is increased by 1. If there is no plenum but only an enclosed dead space, it is reduced by 1. If there is a semi- or permanent enclosure under the fireproofing or acoustical plaster isolating the mechanical system, the general determination is reduced by 1/2.

FACTOR FOUR: ACCESSIBILITY

If the friable asbestos-containing material can be reached by building users or maintenance people either directly or by impact from objects used in the area, it is accessible and subject to accidental or intention contact and damage. Material which is accessible is most likely to be disturbed in the future.

Evidence of degree of accessibility can also be determined by examining asbestos-containing surfaces for impact marks, gouges, scrapes, finger marks, items thrown into the material, etc. Even coated ceilings 25 feet high have been observed with pencils, pens, forks and other items stuck in the material. Also note such practices as stacking boxes from floor to ceiling. The top box may scrape the asbestos-containing coating off the ceiling when it is moved.

The proximity of the friable asbestos-containing material to heating, ventilation, lighting and plumbing systems requiring maintenance or repair may increase its accessibility.

In addition, the activities and behavior of persons using the building should be included in the assessment of whether the material is accessible. For example, persons involved in athletic activities may accidentally cause damage to the material on the walls and ceilings of gymnasiums through contact by balls or athletic equipment. To become fully aware of the uses of the building by its occupants, the inspector should consult with building staff or personnel familiar with routine building activities. This factor is comprised of three levels.

ACCESSIBILITY

A. NOT ACCESSIBLE: The material is located above a tight suspended ceiling or is concealed by ducts or piping. The building occupants cannot contact the material.

NUMERICAL VALUE: 0

B. RARELY ACCESSIBLE: The material is contacted only during abnormal activity such as infrequent maintenance or repair of nearby heating ventilation, lighting or plumbing systems. Building occupants rarely touch the material or throw objects against it.

NUMERICAL VALUE: 1

C. HIGHLY ACCESSIBLE: Material is contacted frequently due to routine maintenance. The building occupants can contact the material during normal activity at which time they routinely touch and

dislodge the materials or throw objects against it.

NUMERICAL VALUE: 4

If the ceiling height or material height is greater than 9 1/2 feet, the subjective score is reduced by 1. If it is under 9 1/2 feet it is increased by 1. Since the building occupancy and use status tells us a great deal about how often the material is going to be accessed, we adjust the subjective determination by 1 1/2+ depending on the amount of occupancy.

Pipe chases, crawl spaces, attics and mechanical air handling rooms are reduced by 1 1/2, whereas major boiler rooms, classrooms, secretarial pools, or offices are increased by 1 1/2.

FACTOR FIVE: ACTIVITY AND MOVEMENT

The level of activity and movement in the vicinity of the asbestos-containing material can affect both the potential for disturbance of the material as well as the level of resuspension of the fibers which have come loose from the material. Consider not only the movement caused by the activities of people in the area but also movement from other sources such as high vibration from adjacent rooms, highways, etc.

Another source of vibration is sound, such as music and noise. Sound sets airwaves in motion in certain frequencies. As these sound waves impact on asbestos-containing material, they may vibrate this material and contribute to fiber release. Therefore fibers may be released to a greater extent in a band room, music practice room, or auditorium than in the remainder of the building. Aircraft noise also has the ability to vibrate buildings; therefore, the inspector should determine if the building is in a direct flight path. It has been reported that in several schools whose ceilings were coated with asbestos-containing acoustical plaster, the band rooms were dustier than any other room in the school and granular material was deposited on floors and desks after music practice sessions.

The level of activity can best be described by identifying the purpose of the area as well as estimating the number of persons who enter the area on a typical day.

ACTIVITY AND MOVEMENT

A. NONE OR LOW ACTIVITY: This level would normally include areas such as administrative offices, libraries, and those classrooms where the population is quiet and non-destructive.

NUMERICAL VALUE: 0

B. MODERATE ACTIVITY: This level describes corridors, classrooms or other areas where activities exist that could create undue vibration. This vibration could result in fibers being released from the material into the immediate area.

NUMERICAL VALUE: 1

C. HIGH ACTIVITY LEVEL: This level may be found in cafeterias and corridors whose occupants are vandalous or disruptive in their activities. This also includes all gymnasiums, swimming pools and rooms containing machinery.

NUMERICAL VALUE: 2

After the subjective determination is made, we must determine whether there is sedentary or non-sedentary movement. If the room in question is a library or other sedentary work environments, the subjective variable is reduced by 1/2. However, if the area in question has a great deal of activity such as in a hallway, a boiler room, a maintenance shed, etc. the variable will be increased by 1/2. If the room in question in subject to sound or mechanical vibration such as in an auditorium or a band hall or in an air handling or boiler room where there are constant vibrations, the variable is up by 1/2. If the area in question contains no recognizable sound or mechanical vibrations, or if no air handling systems are on the roof of the area, the subjective variable is reduced by 1/2.

FACTOR SIX: AIR PLENUM OR DIRECT AIR STREAM

An air plenum exists when the return (or, in rare cases, conditioned) air leaves a room or hall through vents in a suspended ceiling and travels at low speed and pressure through the space between the actual ceiling and the suspended ceiling or ducts. In evaluating whether an air plenum or direct air stream is present the inspector must look for evidence of ducts or cavities used to convey air to and from heating or cooling equipment or the presence of air vents or outlets which blow air directly onto friable material.

A typical construction technique is to use the space between a suspended ceiling and the actual ceiling as a return air plenum. In many cases you will have to lift the tiles in the suspended ceiling to check if this is the case. Inspection of the air handling or HVAC equipment rooms may also provide evidence of the presence of this material in the plenums.

Special attention should be paid to whether activities such as maintenance frequently occur which would disturb the material in the plenum. Also any evidence that the material is being released or eroded (i.e. is it damaged or deteriorated so that the material is free to circulate in the airstream) such as accumulations of the material in the plenum should be noted. The presence of a direct air stream is indicated by discoloration of the asbestos coating in the vicinity of a vent or erosion patterns may be evident in the asbestos-containing material.

AIR PLENUM OR DIRECT AIR STREAM

A. NO AIR PLENUM OR DIRECT AIR STREAM PRESENT:

NUMERICAL VALUE: 0

B. AIR PLENUM OR DIRECT AIR STREAM PRESENT: Look for dust patterns deposited by an air stream on surfaces next to air supply diffusers. Fan rooms coated with asbestos-containing material may be contributing asbestos fibers to the building air if the circulation system draws air from such a coated room. Look for debris from the asbestos-containing material being deposited on dampers and filters of the air intake.

NUMERICAL VALUE: 1

After the general determination is made, we look at the velocity of the air flow if in fact there is an air flow. If the air flow is recognizable by human feeling rather than subtle, the variable is increased by 1/4. If it is non-recognizable it is reduced by 1/4. If the air flow is a constant, steady stream it, again, is reduced by 1/4; whereas if the air flow is an impact air flow such as through thermastatic action where large gusts of air impact the material from time to time it is increased by 1/4.

FACTOR SEVEN. FRIABILITY

The term "friable" is applied to dry material that can be crumbled, pulverized, or reduced to powder by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air. In order to evaluate the friability of the material it should be touched. The asbestos-containing material can vary in degree of friability. The more friable the material, the greater the potential for asbestos fiber release and contamination. A material that contains asbestos can be expected to emit fibers during use or maintenance if the original integrity of the material has been disturbed.

FRIABILITY

A. NOT FRIABLE: Material that is hard and cannot be damaged by hand. An object is required to penetrate material. The material integrity has been maintained.

NUMERICAL VALUE: 0

B. LOW FRIABILITY: Material that is difficult yet possible to damage by hand. Material can be indented by forceful impact. If the granular, cementitious asbestos-containing material is rubbed, it leaves granules on the hand but no powder. Material integrity has been disturbed.

NUMERICAL VALUE: 1

C. MODERATE FRIABILITY: Fairly easy to dislodge and crush or pulverize. Material may be removed in small or large pieces. Material is soft and can easily be indented by hand pressure. The granular, cementitious asbestos-containing material leaves a powder residue on the hands when rubbed.

NUMERICAL VALUE: 2

D. HIGH FRIABILITY: The material is fluffy, spongy, or flaking and may have pieces hanging down. Easily crushed or pulverized by hand pressure. Material may disintegrate or fall apart when touched.

NUMERICAL VALUE: 3

FACTOR EIGHT: ASBESTOS CONTENT

The percentage for all types of asbestos present should be added for the total asbestos content. The numerical value is assigned based upon the report of analysis, not on appearance of the material.

With a high percentage of asbestos, there are more fibers that can be released and contaminate the building environment. Therefore, if certain areas are identical in their assessment using the other seven factors, this factor will be helpful in establishing priorities and indicating which area needs to be addressed first. This factor is comprised of three levels:

A. TRACE AMOUNTS TO ONE PERCENT.

NUMERICAL VALUE: 0

B. GREATER THAN ONE PERCENT TO FIFTY PERCENT. Ceiling and wall coatings most frequently encountered in this category are the granular, cementitious acoustical plasters.

NUMERICAL VALUE: 2

C. FIFTY PERCENT TO ONE HUNDRED PERCENT. Most frequently materials containing over 50% asbestos were pipe and boiler wrapping or the fibrous, cotton candy, type sprayed-on insulation.

NUMERICAL VALUE: 3

Step 2: Exposure Number Calculation

The Exposure Number is derived from the Factor Scores by a formula. After entering the chosen Factor Scores on lines 1 through 8:

a) Sum factors 1 through 6 and enter opposite SUM;

b) Multiply factor 7 times factor 8, and enter opposite PRODUCT;

c) Multiply SUM times PRODUCT and enter

opposite EXPOSURE NUMBER.

This number represents the result of your assessment for each area of the building. The values can range from 0 to 162. The higher the numerical value, the greater the potential for fiber release and therefore the more hazardous the situation. The Exposure Number must now be compared to the Corrective Action Scale, which is Step 3.

Step 3: Comparison of Exposure Number to Corrective Action Scale

Appendix B, Corrective Action Scale, presents five Priority Levels, and a range of Exposure Numbers for which that Priority Level is appropriate. Compare the Exposure Number derived in Step 2 to the Priority Levels in Appendix B. For example, an Exposure Number of 65 indicates that a Priority Level of I should be assigned. An Exposure Number of 10, however, indicates that a Priority Level of IV should be assigned. The proper response action for each Priority Level is found in Section IX of these standards.

APPENDIX B

CORRECTIVE ACTION SCALE

Priority Level	Exposure Number Range
I	61 - 16
II	40 - 6
III	20 - 3
IV	0 - 1
Significant Hazard Area	As Defined in Section I

† SURVEY STANDARDS FOR THE INSPECTION OF BUILDINGS BEING CONVERTED TO CONDOMINIUMS FOR THE PRESENCE OF ASBESTOS

I. Definitions.

Abatement Contractor - company or individual properly licensed in the Commonwealth of Virginia who routinely conducts asbestos abatement activities such as, but not limited to removal, encapsulation or enclosure of asbestos containing materials in buildings.

Administrator - shall mean the Property Registration Administrator, Virginia Department of Commerce.

Asbestos - means any material containing more than one percent of the asbestiform varieties of:

1. chrysotile (serpentine).

2. crocidolite (riebeckite),

3. amosite (cummingtonite-grunerite),

4. anthophyllite,

5. tremolite, or

6. actinolite.

Building Manager - contact person representing the owning entity at each facility.

Competent Personnel - personnel who are qualified by education and/or experience to determine the presence of asbestos and to assess its hazard, or to abate any such hazard by proper encapsulation, enclosure, removal, repair or operations and maintenance of the asbestos containing material and who are licensed by the Virginia Department of Commerce pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1. In addition, asbestos inspectors must meet the minimum competency requirements specified in Section IV(3) of these Standards.

Encapsulation - the treatment of asbestos-containing materials with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

Enclosure - the construction or installation over or about the asbestos-containing material of any solid or flexible coverings, which will not deteriorate or decompose for an extended period of time, so as to conceal the material, contain all asbestos fibers and render the asbestos-containing material inaccessible.

Executive Director - shall mean the Executive Director, Virginia Department of Commerce.

Facility - Any building included, or that may be included, in the condominium which was substantially completed prior to July, 1978.

Friable - material which is capable of being crumbled, pulverized, or reduced to powder by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air.

Homogenous Material - Any material that appears similar in terms of color, texture, pattern, date of material application and functional use.

Inspector - individual who physically inspects each building for materials that may contain asbestos, who is properly licensed to conduct building inspections for asbestos by the Virginia Department of Commerce

pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1 and who meets the additional requirements specified in Section IV(3) of these standards.

Management Planner - Individual who develops the plan to manage any identified or suspect asbestos containing materials in the facility, who is properly licensed by the Virginia Department of Commerce as an Asbestos Management Planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1.

Notification - Procedure used to inform building occupants and visitors of the location, description and condition of all asbestos containing materials identified or suspected in the facility and of the existence and location of a plan to manage the material.

Removal - the physical removal of asbestos-containing material from a building and disposal thereof in accordance with all applicable regulations.

Repair - cause friable asbestos-containing material to be changed or modified to a condition where it is not friable.

Response Actions - means any action, including removal, encapsulation, enclosure, repair, method of operation, maintenance, record keeping or notification that protects human health from building materials containing asbestos.

Significant Hazard Area - Means any area where the asbestos containing material is highly friable, where more than 10% of the material is exposed, where the damage is widespread and the area is accessible to occupants including by any air handling system.

Team Leader - individual who is properly licensed as an asbestos inspector and management planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et.seq.) of Title 54.1 and who meets the minimum requirements specified in Section IV(3)(B) of these standards.

Varying Visible Appearance - any visible difference in size, color, texture, degree of hardness, etc., which may indicate differing material. This term is synonymous with "visually distinct material."

II. Background.

There has been a growing public awareness of the link between the inhalation of asbestos fibers and various diseases such as asbestosis, mesothelioma, lung and other cancers. As a result, Legislation was enacted by the 1987 General Assembly (Article 5.2 Sect. 2.1-526.12 through 2.1-526.17) and was modified by the 1988 General Assembly which required the Department of General Services to develop survey standards for the inspection of buildings other than school buildings in order to identify the presence of asbestos and to the extent practicable the relative hazard to health or safety posed by any asbestos identified.

III. Purpose.

The primary purpose of these standards is to establish the minimum requirements, relevant to the inspection of each facility for asbestos, the evaluation of the risk to human health, and the development of a specific schedule and plan to abate that risk prior to the conveyance of any unit in a building containing asbestos.

IV. Scope.

1. All condominiums shall be evaluated and a plan developed in accordance with the provisions of these standards after July 1, 1987.

2. Any building substantially completed after July 1, 1978 is exempt from the requirements of these standards.

3. Minimum Competency Requirements:

A. Individuals conducting inspections of buildings for asbestos containing materials shall meet the following minimum requirements:

1) They shall have a valid Asbestos Inspector's License and Asbestos Management Planner's License issued by the Virginia Department of Commerce pursuant to the requirement of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1, and have either;

a) successfully completed a minimum of two (2) weeks of intensive field training under the direction of a Team Leader or;

b) have a minimum of two (2) years experience in conducting field assessment surveys for asbestos containing materials in buildings.

B. Individuals filling positions of Team Leader shall meet the following minimum requirements.

1) They shall possess, at a minimum, a college degree (A.S. or B.S.) in a physical science or related scientific field (e.g. biology, environmental science, engineering, geology, etc.), and;

2) have a minimum of three years experience in conducting field assessment surveys for asbestos containing materials in buildings, and;

3) have a valid Asbestos Inspector's License and Management Planner's License issued by the Virginia Department of Commerce pursuant to Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1.

V. Preliminary Assessment.

An initial assessment shall be made to determine which, if any, buildings were substantially completed prior to July, 1978. Any disagreement shall be resolved by the Executive Director.

All buildings being converted to condominiums must be evaluated after July 1, 1987 by competent personnel as defined herein unless they are deemed exempt by the Executive Director pursuant to Section IV.2 of these standards.

VI. Document Review and On-Site Survey.

A review should be made of all appropriate building construction documents (i.e., floor plans, blueprints, microfilm record, previous inspection records, asbestos abatement projects, etc.) to facilitate the identification of areas where asbestos may be present if available. A basic sketch of the representative floor plan showing any major detail must be prepared to identify bulk sample locations and general asbestos material location.

Any on-site inspections must be conducted by competent personnel who have the training to identify the presence of asbestos, and to assess, to the extent practicable, the relative hazard or hazards to health and safety posed at each location at which asbestos is suspected or identified. Each on-site survey shall include at least the following and be documented in a report to the owners.

1. Visual Inspection - All accessible building areas and spaces shall be visually inspected, including but not limited to the following:

A. rooms, hallways, and offices

B. mechanical and electrical equipment rooms

C. pipe chases

D. basements

E. attics

F. the space above ceilings, between walls, and below floors

G. steam tunnels

H. stairwells

I. closets and storage areas

J. all occupied and unoccupied spaces

K. crawl spaces, including soil as appropriate

In addition, identify and document the location of all fire doors suspected of containing asbestos. These locations are to be designated on the building sketches and included in the inspection report.

Note: Areas where access is impossible or prohibitive should be identified on the building sketches. In the plan a notation must be made as to why the areas could not be investigated. All materials in these areas are to be considered to contain asbestos and must be included in the plan. The area must be evaluated according to the requirements of these standards when the area becomes accessible but before occupation.

2. Bulk Sampling - representative bulk sampling of suspected asbestos-containing materials shall be conducted and submitted to a laboratory meeting the minimum requirements found in Section VII of these standards.

All sample areas shall be clearly marked and a permanent identification number corresponding to the respective samples and shall be identified on copies of the available construction drawings or the building sketches prepared by the inspector.

A. Representative samples of each distinct type of friable asbestos material as defined herein shall be collected to confirm its asbestos content unless it is assumed to contain asbestos. Distinction between types of material shall be based on at least the following criteria:

1) visual appearance, size;

2) texture and hardness;

3) functional use, including but not limited to insulation, ceilings, walls, boilers, tanks, furnace, other mechanical equipment, ceiling pipes, pipe wrapping, elbow material, valve material, structural members, decks, beams, duct materials, fire doors and/or stage curtains.

4) information provided by documents, interviews, or any source as to prior renovation or patchwork.

B. The minimum number of samples to be taken for each distinct type of suspected asbestos material shall be as follows:

1) Sprayed or troweled material - three random samples for each visually or functionally different material or known different application for up to 1,000 sq. ft., five random samples from 1,000 to 5,000 sq. ft., seven random samples from 5,000 to 10,000 sq. ft., and for every 5,000 sq. ft. over 10,000 sq. ft. one additional random sample will be taken. This rule applies to homogeneous material on each floor only.

2) Pipe and duct insulation - a minimum of one sample for every 150 linear feet of material of varying size or visual appearance per floor. Samples shall be taken where material is damaged or exposed where possible, to avoid breaching intact covering.

3) Valve or fitting muds - three samples of valve material or elbow mud for each insulated line of varying diameter or visual appearance per floor or

area.

4) Boilers, tanks, and furnaces - three samples per unit if homogeneous.

5) Patchwork - one sample of each patch or repair.

6) Ceiling or acoustical tile - three samples for each material of varying visible appearance per floor.

7) Other friable materials - as determined as necessary by the inspector - but at least two samples per homogenous material per floor.

8) If the friable material is not sampled but assumed to contain asbestos, then the inspector must complete the hazard assessment using 100% asbestos as the asbestos content value.

9) If the suspected asbestos-containing material is not friable as defined herein, a sample need not be taken. The location, type, and condition of the material shall be noted on the building layout documents or sketches provided by the inspector. The material shall be labeled according to the requirements of Section X for suspect material. These materials must be included in the specified schedule and plan and must be included in the Priority Level IV Response Action category.

C. Selection of sample location:

1) For sprayed on or troweled on material, the EPA guidelines located on pages 15-27 in "Asbestos - Containing Materials in School Buildings - Guidance for Analytical Programs" will be followed.

2) For other types of uses, visually distinct materials will be sampled.

D. Bulk Sample Size:

1) Samples shall be taken to penetrate all layers of the material. Samples should contain at least 15 cubic centimeters of material, and shall be placed in a container and sealed at the time of collection.

E. Sampling Precautions:

All precautions shall be taken to prevent exposure to those present in or around the facility during the collection of samples. The survey team is responsible for protecting occupants of the area and for patching the sampling area.

1) All sampling shall be conducted when building occupants are not in the immediate area, and preference shall be given to time when the areas being sampled are not in use.

When it is not possible to collect samples during a time when the facility is not being used, advance arrangements shall be made to evacuate the immediate sampling area(s) for the time necessary to collect the samples. The building manager is responsible for insuring that evacuation takes place.

2) Proper procedures and equipment shall be used during sampling to minimize fiber generation.

3) Area Protection and cleanup:

Care should be taken to minimize fiber release; however, any visible debris or residue generated during the sampling shall be thoroughly removed by wet wiping the debris or HEPA vacuuming. An area at least 4 feet in each direction shall also be cleaned using the above methods.

4) Locations from which samples are taken shall be patched as soon as the sampling has been completed by using methods and materials which are acceptable to the Project Manager and which are both structurally sound and aesthetically compatible. Each such location may be treated by low pressure application of an approved encapsulation.

5) When samples are taken in areas where the material is in poor condition, care must be taken to prevent further deterioration or fiber release.

a. The sample location will be adequately patched to prevent fiber release or deterioration by the inspector unless otherwise noted by the Building Manager in writing.

VII. Bulk Sample Analysis.

1. Samples shall be analyzed by polarizing light microscopy using the EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020).

2. The inspector shall submit bulk samples for analysis to a laboratory that successfully participates in the National Institute of Standards and Technology (NITS) Quality Assurance Program or an approved equivalent Quality Assurance Program, and have certification/accreditation by the American Industrial Hygiene Association.

3. Sample Submissions:

A. Laboratory Analyst: Each analyst must have successfully completed a course in basic asbestos analysis, similar to that offered by Walter C. McCrone Associates of Chicago, Illinois. In addition, each analyst must have six months of on-the-job training with an analyst found acceptable through the NITS Quality Assurance Program/National Voluntary Laboratory Accreditation Program (NVLAP), or an approved equivalent.

VIII. Relative Exposure Potential Assessment.

Each location where the presence of asbestos is suspected or identified shall be evaluated using the algorithm found in Appendix A.

The Building Manager will be notified immediately by the inspector if significant hazard area is discovered. This notification may be verbal initially but must be reduced to writing within 24 hours.

IX. Assessment of Conditions and Prioritization for Remedial Action.

Upon completion of the on-site inspections and the calculation of the Relative Exposure Potential Assessment, recommendations shall be made regarding future response actions.

A number of factors are used to determine the exposure number and, subsequently, the priority level. One of the most important factors among those listed in Appendix A of this Standard is the friability factor. Friability is the ability to crumble, pulverize, or powderize a dry material by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air. The determination of friability is straight forward and is explained in Appendix A of this Standard. Friability is a multiplicative factor and can increase the final exposure number as much as 33% to 100%

Another factor important in determining exposure potential is the mechanism for fiber transportation. This transport mechanism may be an air plenum or it can be the simple opening and closing of a door. High occupant activity can cause fibers to become entrained, and even water damage can be a means of fiber transport. A number of the factors mentioned above are addressed in the field and scored on the algorithm. One of the most serious situations is to have a highly friable material in a non-ducted supply air plenum. Another serious concern is to have a highly friable material in a return air plenum. No matter what the transport mechanism is, corrective procedures will need to be designed and implemented to reduce or eliminate the transportation of fibers.

Five (5) priority levels have been defined for those areas found to contain asbestos. These Priority Levels are a function of the exposure number.

(For explanation of exposure numbers, please see Appendix A). A priority ranking is an excellent means of designing a phased abatement program.

The following is a detailed explanation of each priority level:

Significant Hazard Area - Areas placed in this category are those that are considered to pose a significant potential hazard to human health. The proper response to this priority is to immediately isolate the area and repair, encapsulate, enclose or remove the material before access is allowed. Any response other than removal must leave the material not accessible or not friable.

Priority Level I:

Areas placed in this Priority category are those that are felt to pose a high exposure potential. Materials in these areas are usually in very poor condition with material possibly laying about on the floor. However, there is the possibility for the material to be in good condition and still exhibit a high potential for exposure, depending on other factors such as friability, accessibility, air movement and vibration. Fireproofing is a material that can exhibit this condition. These are the areas that should be addressed first.

The response action recommended for items in this level are to repair the material by encapsulation, enclosure or by any other means which will render the material not friable and to institute a plan designed to insure that the material does not become friable, or remove the material using competent, licensed personnel.

Priority Level II:

Areas listed in this level have materials that are not in as poor condition as those listed in Priority Level I but still pose a relatively high potential for exposure. In some cases the difference between a Priority Level I area and Priority Level II may be access to the area and the material. The corrective action plan for these areas should be to properly repair of the material and to institute a plan to insure that the material does not become friable, or remove the material using competent, licensed personnel.

Priority Level III:

These areas pose a moderate exposure potential; however, with time these materials will deteriorate and should be abated. Corrective action should be aimed at eliminating the factors causing the material to deteriorate and to making repairs. A plan will be necessary to monitor the condition of these materials to insure that they do not become friable after repairs are made.

Priority Level IV:

These materials currently have a relatively low exposure potential. Make minor repairs to the material and institute a plan to insure the material remains not friable or remove the material using competent, licensed personnel.

Determination of Priority Levels:

The determination of Priority Level I areas and Priority Level II areas is based on considerable experience and compiled with standard, recognized approaches to prioritization based on industry standards.

The Priority Levels are graduational by design. An area that falls in the upper portion of Priority Level II should be considered to pose a higher exposure potential than an area that falls in the lower portion of Priority Level II.

Finally, it is strongly recommended that in any area that is scheduled to undergo renovation or demolition, a complete survey be conducted to confirm the asbestos content of all suspect materials that could contain asbestos. Materials that contain asbestos must be removed prior to commencement of any renovation or demolition work in which the asbestos containing material will be disturbed by the project. Any removal of asbestos-materials must be by personnel properly licensed by the Department of Commerce.

X. Signs/Labels/Notification.

Every location at which asbestos is suspected or identified shall be clearly marked with suitably designed signs or labels or the building occupants shall be notified of the location and condition of the asbestos containing material within the building and the existence of a plan for its management, in writing.

1. Every mechanical room where asbestos is identified shall have at least one sign located in a conspicuous place at each entrance which contains appropriate wording (e.g., WARNING CEILING MATERIAL CONTAINS ASBESTOS. DO NOT DISTURB).

2. Locations containing any materials identified or suspected to contain asbestos shall be reported in order to provide a permanent record for future reference by the facility and shall be included in the plan.

3. All thermal system insulation with suspected or known asbestos-containing materials shall be labeled accordingly (e.g., WARNING SUSPECTED ASBESTOS. DO NOT DISTURB). The labels shall be painted on or affixed to the insulation or covering in a color that contrasts with the color of the material at intervals that would prevent someone from disturbing the material without knowing that it does or is likely to contain asbestos.

XI. Certification.

To determine compliance, documentation shall include at a minimum:

1. Qualifications of Inspector.

2. Qualifications of Laboratory and Analyst.

3. Documentation necessary to determine that the survey was conducted according to these standards.

4. Proposed action to comply with unmet requirements.

XII. Plan.

For those facilities where any action short of immediate removal has been recommended, the inspector shall develop a plan to manage the potential hazard. The plan shall include at a minimum:

a. A timetable and recommended response actions to be used to abate any risk to human health discovered during the survey.

b. Details for identifying and visually marking all asbestos in accordance with these standards.

c. Procedures for the written notification of persons occupying and/or using the facility as to the location and condition of the asbestos materials found in the facility and that a plan to manage the material has been implemented and its location.

d. A program for training persons who may be required to work on or in the vicinity of asbestos.

e. A program for notifying contractors as to the location of any known or suspected asbestos in the facility and control measures required to protect employees and building occupants.

f. An inspection procedure and training requirements for persons to conduct quarterly maintenance inspections to identify any change in the friability or accessibility of each identified or suspect material within the facility.

g. A written description of the location where each sample was obtained, a copy of the laboratory report and a copy of the relative hazard assessment conducted for that material.

h. Signature of the inspector, the date of the survey, the date the report is submitted and the applicable license numbers required by this standard.

APPENDIX A

Instructions For Use Of The 20-Variable Algorithm

The 20-variable algorithm is an expansion on the old EPA or Sawyer algorithm. Where the primary variables are identical to the Sawyer algorithm, the first 6 variables have 2 sub-variable used to adjust the subjective or general score. The subjective or general score can be adjusted to represent a more accurate reflection of the true value of that general variable.

ASSESS EACH OF THE FACTORS

Carefully consider each of the following seven factors (the eighth factor, asbestos content, must be determined from laboratory reports) and record your observations:

FACTOR ONE. MATERIAL CONDITION:

The condition of the asbestos-containing material is the most important indicator of whether fibers have been released in the past or may be released in the future.

An assessment of the condition should evaluate: the quality of the installation, the adhesion of the material to the underlying substrate, deterioration, destruction of the material by water, vandalism which has damaged the material, and any other damage. Evidence of debris on horizontal surfaces, material hanging, dislodged chunks, scrapings, indentations, or cracking are indicators of poor material condition.

Condition is closely related to other factors considered in the assessment inspection: if the asbestos-containing material is accessible, it is likely to be damaged; if the activity level is high in the area, the level of damage may be high; and materials which are exposed may be more likely to sustain damage.

Accidental or deliberate physical contact with the material can result in damage to the asbestos-containing material. Inspectors should look for any evidence that the asbestos-containing material has been disturbed such as finger marks in the material, graffitti, pieces dislodged or missing, scrape marks from movable equipment or furniture, or accumulation of the friable material of floors, shelves, or other horizontal surfaces.

Asbestos-containing material may deteriorate as a result of the quality of the installation as well as environmental factors which affect the cohesive strength of the asbestos-containing material or the strength of the adhesion to the substrate. Deterioration can result in dusting of the surface of the asbestos-containing material, delamination of the material (i.e., separating into layers), or an adhesive failure of the material where it pulls away from the substrate and either hangs loosely or falls to the floor and exposed the substrate. Inspectors should touch the asbestos-containing material and determine if dust is released when the material is lightly brushed or rubbed. If the coated surface "gives" when slight hand pressure is applied or the material moves up and down with light pushing, the asbestos-containing material is no longer tightly bonded to its substrate.

FACTOR ONE: MATERIAL CONDITION

This factor is comprised of three levels:

A. NO DAMAGE: Material is intact and shows no sign of deterioration.

NUMERICAL VALUE: 0

B. MODERATE DAMAGE - SMALL AREAS: Through visual inspection and physical contact there are indications that 10% or less of the material is breaking up into layers or beginning to fall. There may be small areas where the material is deteriorating. There may be signs of accidental or intentional damage.

NUMERICAL VALUE: 2

C. WIDESPREAD SEVERE DAMAGE: Greater than 10% of the material is damaged. Large pieces are dislodged and/or debris in the area is evident. Parts of the material may be suspended from the ceilings or may have fallen to the floor. Evidence of severe accidental or intentional damage.

NUMERICAL VALUE: 5

After the subjective score is determined for material condition based on the standard EPA guidelines for determining such, the score should be adjusted up 1 point or down 1 point depending on the building area age. If the age of the material and/or building in question is greater than 30 years, the objective variable is increased by 1. If the area age is less than 15 years, it is subtracted by 1. If the age is between 15 and 30 years, the score does not change. Then if the type of material, in particular pipe coverings, is a magnesium or calcium silicate preformed pipe which has a tendency to deteriorate more rapidly, the score is up by 1; and if the material type is corrugated air cell or paper product, it is reduced by 1. For ceiling plasters or fireproofing, if the material type is a more cementitious Monokote Type it is reduced by 1. If it is a cotton candy Cafco type blaze shield or sound shield, it is up by 1. For standard acoustical plaster materials, there is no change in the subvariable.

FACTOR TWO: WATER DAMAGE

Water damage is usually caused by roof leaks, particularly in buildings with flat roofs or a concrete slab and steel beam construction. Skylights can also be significant sources of leaks. Water damage can also result from plumbing leaks and water in the vicinity of pools, locker rooms, and lavatories.

Water can dislodge, delaminate, or disturb asbestos-containing materials that are otherwise in satisfactory condition and can increase the potential for fiber release by dissolving and washing out the binders in the material. Materials which were not considered friable may become friable after water has dissolved and leached out the binders. Water can also carry fibers as a slurry to other areas where evaporation will leave a collection of fibers that can become resuspended in the air.

Inspect the area for visible signs of water damage such as discoloration of the asbestos-containing material, stains on the asbestos-containing material, adjacent walls, or floor, buckling of the walls or floor, or areas where pieces of the asbestos-containing material have separated into layers (delaminated) or come loose and fallen down thereby exposing the substrate.

Close inspection is required. In many areas staining may

only occur in a limited area while water damage causing delamination may have occurred in a much larger area. In addition, the water damage may have occurred since the original inspection for friable material was conducted causing new areas to become friable and require an assessment inspection.

Delamination is particularly a problem in areas where the substrate is a very smooth concrete slab. Check to see if the material "gives" when pressure is applied from underneath.

FACTOR TWO: WATER DAMAGE

This factor is comprised of three levels:

A. NO WATER DAMAGE: No water stains or evidence of the material being disturbed by water. No stains on the floor or walls to indicate past water damage.

NUMERICAL VALUE: 0

B. MINOR WATER DAMAGE: Small areas of the material or adjacent floor and/or walls show water stains and ceiling material may be slightly buckled. However, pieces have not fallen from the ceiling and the damage affects 10 percent or less of the material.

NUMERICAL VALUE: 1

C. MODERATE TO MAJOR WATER DAMAGE: Water has dislodged some of the material and caused the material to break away, or has become saturated and has the potential to fall, and/or greater than 10 percent of the material has been affected. Asbestos fibers have been carried from the asbestos-containing material by water and evaporation has occurred, and/or the fibers have been deposited on other surfaces.

NUMERICAL VALUE: 2

After the general subjective determination has been made, if the roof above the material is a sloped or hipped roof, the subjective is reduced by 1/2. If it is a flat roof and built-up it is increased by 1/2. If the substrate type is is metal or concrete, it is reduced by 1/2.

FACTOR THREE: EXPOSED SURFACE AREA

The amount of asbestos-containing material exposed to the area occupied by people can increase the likelihood that the material may be disturbed and determines whether the fibers can freely move through the area. An asbestos-containing material is considered exposed if it can be seen, i.e., if there are no physical barriers which must be moved in order to get to the material. For a material not to be exposed, the barrier must be complete, undamaged, and not likely to be removed or dislodged. An asbestos-containing material should be considered exposed if it is visible, regardless of the height of the material.

If the asbestos-containing material is located behind a suspended ceiling with movable tiles, a close inspection must be made of the condition of the suspended ceilings, the likelihood and frequency of access into the suspended ceiling, and whether the suspended ceiling forms a complete barrier or is only partially concealing the material.

Asbestos-containing material above a suspended ceiling is considered exposed if the space above the suspended ceiling comprises an air plenum. Suspended ceilings with numerous louvers, grids or other open spaces should be considered exposed. This factor is comprised of three levels:

FACTOR THREE: EXPOSED SURFACE AREA

A. MATERIAL NOT EXPOSED: Located above suspended ceiling. None visible without removing panels or ceiling sections. Suspended ceiling is not damaged.

NUMERICAL VALUE: 0

B. TEN PERCENT OR LESS OF THE MATERIAL IS EXPOSED: A few panels of a suspended ceiling have been removed. Spaces between ceiling tiles exist which would allow fibers to pass through the barrier.

NUMERICAL VALUE: 1

C. GREATER THAN 10 PERCENT OF THE MATERIAL IS EXPOSED.

NUMERICAL VALUE: 4

After the general determination is made, if there is an HVAC system that is part of the plenum area, the general determination is increased by 1. If there is no plenum but only an enclosed dead space, it is reduced by 1. If there is a semi- or permanent enclosure under the fireproofing or acoustical plaster isolating the mechanical system, the general determination is reduced by 1/2.

FACTOR FOUR: ACCESSIBILITY

If the friable asbestos-containing material can be reached by building users or maintenance people either directly or by impact from objects used in the area, it is accessible and subject to accidental or intention contact and damage. Material which is accessible is most likely to be disturbed in the future.

Evidence of degree of accessibility can also be determined by examining asbestos-containing surfaces for impact marks, gouges, scrapes, finger marks, items thrown into the material, etc. Even coated ceilings 25 feet high have been observed with pencils, pens, forks and other items stuck in the material. Also note such practices as stacking boxes from floor to ceiling. The top box may scrape the asbestos-containing coating off the ceiling when

it is moved.

The proximity of the friable asbestos-containing material to heating, ventilation, lighting and plumbing systems requiring maintenance or repair may increase its accessibility.

In addition, the activities and behavior of persons using the building should be included in the assessment of whether the material is accessible. For example, persons involved in athletic activities may accidentally cause damage to the material on the walls and ceilings of gymnasiums through contact by balls or athletic equipment. To become fully aware of the uses of the building by its occupants, the inspector should consult with building staff or personnel familiar with routine building activities. This factor is comprised of three levels:

ACCESSIBILITY

A. NOT ACCESSIBLE: The material is located above a tight suspended ceiling or is concealed by ducts or piping. The building occupants cannot contact the material.

NUMERICAL VALUE: 0

B. RARELY ACCESSIBLE: The material is contacted only during abnormal activity such as infrequent maintenance or repair of nearby heating ventilation, lighting or plumbing systems. Building occupants rarely touch the material or throw objects against it.

NUMERICAL VALUE: 1

C. HIGHLY ACCESSIBLE: Material is contacted frequently due to routine maintenance. The building occupants can contact the material during normal activity at which time they routinely touch and dislodge the materials or throw objects against it.

NUMERICAL VALUE: 4

If the ceiling height or material height is greater than 9 1/2 feet, the subjective score is reduced by 1. If it is under 9 1/2 feet it is increased by 1. Since the building occupancy and use status tells us a great deal about how often the material is going to be accessed, we adjust the subjective determination by 1 1/2+ depending on the amount of occupancy.

Pipe chases, crawl spaces, attics and mechanical air handling rooms are reduced by 1 1/2, whereas major boiler rooms, classrooms, secretarial pools, or offices are increased by 1 1/2.

FACTOR FIVE: ACTIVITY AND MOVEMENT

The level of activity and movement in the vicinity of the asbestos-containing material can affect both the potential for disturbance of the material as well as the level of resuspension of the fibers which have come loose from the material. Consider not only the movement caused by the activities of people in the area but also movement from other sources such as high vibration from adjacent rooms, highways, etc.

Another source of vibration is sound, such as music and noise. Sound sets airwaves in motion in certain frequencies. As these sound waves impact on asbestos-containing material, they may vibrate this material and contribute to fiber release. Therefore fibers may be released to a greater extent in a band room, music practice room, or auditorium than in the remainder of the building. Aircraft noise also has the ability to vibrate buildings; therefore, the inspector should determine if the building is in a direct flight path. It has been reported that in several schools whose ceilings were coated with asbestos-containing acoustical plaster, the band rooms were dustier than any other room in the school and granular material was deposited on floors and desks after music practice sessions.

The level of activity can best be described by identifying the purpose of the area as well as estimating the number of persons who enter the area on a typical day.

ACTIVITY AND MOVEMENT

A. NONE OR LOW ACTIVITY: This level would normally include areas such as administrative offices, libraries, and those classrooms where the population is quiet and non-destructive.

NUMERICAL VALUE: 0

B. MODERATE ACTIVITY: This level describes corridors, classrooms or other areas where activities exist that could create undue vibration. This vibration could result in fibers being released from the material into the immediate area.

NUMERICAL VALUE: 1

C. HIGH ACTIVITY LEVEL: This level may be found in cafeterias and corridors whose occupants are vandalous or disruptive in their activities. This also includes all gymnasiums, swimming pools and rooms containing machinery.

NUMERICAL VALUE: 2

After the subjective determination is made, we must determine whether there is sedentary or non-sedentary movement. If the room in question is a library or other sedentary work environments, the subjective variable is reduced by 1/2. However, if the area in question has a great deal of activity such as in a hallway, a boiler room, a maintenance shed, etc. the variable will be increased by 1/2. If the room in question in subject to sound or mechanical vibration such as in an auditorium or a band

hall or in an air handling or boiler room where there are constant vibrations, the variable is up by 1/2. If the area in question contains no recognizable sound or mechanical vibrations, or if no air handling systems are on the roof of the area, the subjective variable is reduced by 1/2.

FACTOR SIX: AIR PLENUM OR DIRECT AIR STREAM

An air plenum exists when the return (or, in rare cases, conditioned) air leaves a room or hall through vents in a suspended ceiling and travels at low speed and pressure through the space between the actual ceiling and the suspended ceiling or ducts. In evaluating whether an air plenum or direct air stream is present the inspector must look for evidence of ducts or cavities used to convey air to and from heating or cooling equipment or the presence of air vents or outlets which blow air directly onto friable material.

A typical construction technique is to use the space between a suspended ceiling and the actual ceiling as a return air plenum. In many cases you will have to lift the tiles in the suspended ceiling to check if this is the case. Inspection of the air handling or HVAC equipment rooms may also provide evidence of the presence of this material in the plenums.

Special attention should be paid to whether activities such as maintenance frequently occur which would disturb the material in the plenum. Also any evidence that the material is being released or eroded (i.e. is it damaged or deteriorated so that the material is free to circulate in the airstream) such as accumulations of the material in the plenum should be noted. The presence of a direct air stream is indicated by discoloration of the asbestos coating in the vicinity of a vent or erosion patterns may be evident in the asbestos-containing material.

AIR PLENUM OR DIRECT AIR STREAM

A. NO AIR PLENUM OR DIRECT AIR STREAM PRESENT:

NUMERICAL VALUE: 0

B. AIR PLENUM OR DIRECT AIR STREAM PRESENT: Look for dust patterns deposited by an air stream on surfaces next to air supply diffusers. Fan rooms coated with asbestos-containing material may be contributing asbestos fibers to the building air if the circulation system draws air from such a coated room. Look for debris from the asbestos-containing material being deposited on dampers and filters of the air intake.

NUMERICAL VALUE: 1

After the general determination is made, we look at the velocity of the air flow if in fact there is an air flow. If the air flow is recognizable by human feeling rather than subtle, the variable is increased by 1/4. If it is non-recognizable it is reduced by 1/4. If the air flow is a constant, steady stream it, again, is reduced by 1/4; whereas if the air flow is an impact air flow such as through thermastatic action where large gusts of air impact the material from time to time it is increased by 1/4.

FACTOR SEVEN. FRIABILITY

The term "friable" is applied to dry material that can be crumbled, pulverized, or reduced to powder by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air. In order to evaluate the friability of the material it should be touched. The asbestos-containing material can vary in degree of friability. The more friable the material, the greater the potential for asbestos fiber release and contamination. A material that contains asbestos can be expected to emit fibers during use or maintenance if the original integrity of the material has been disturbed.

FRIABILITY

A. NOT FRIABLE: Material that is hard and cannot be damaged by hand. An object is required to penetrate material. The material integrity has been maintained.

NUMERICAL VALUE: 0

B. LOW FRIABILITY: Material that is difficult yet possible to damage by hand. Material can be indented by forceful impact. If the granular, cementitious asbestos-containing material is rubbed, it leaves granules on the hand but no powder. Material integrity has been disturbed.

NUMERICAL VALUE: 1

C. MODERATE FRIABILITY: Fairly easy to dislodge and crush or pulverize. Material may be removed in small or large pieces. Material is soft and can easily be indented by hand pressure. The granular, cementitious asbestos-containing material leaves a powder residue on the hands when rubbed.

NUMERICAL VALUE: 2

D. HIGH FRIABILITY: The material is fluffy, spongy, or flaking and may have pieces hanging down. Easily crushed or pulverized by hand pressure. Material may disintegrate or fall apart when touched.

NUMERICAL VALUE: 3

FACTOR EIGHT: ASBESTOS CONTENT

The percentage for all types of asbestos present should be added for the total asbestos content. The numerical value is assigned based upon the report of analysis, not on appearance of the material.

With a high percentage of asbestos, there are more fibers that can be released and contaminate the building environment. Therefore, if certain areas are identical in their assessment using the other seven factors, this factor will be helpful in establishing priorities and indicating which area needs to be addressed first. This factor is comprised of three levels:

A. TRACE AMOUNTS TO ONE PERCENT.

NUMERICAL VALUE: 0

B. GREATER THAN ONE PERCENT TO FIFTY PERCENT. Ceiling and wall coatings most frequently encountered in this category are the granular, cementitious acoustical plasters.

NUMERICAL VALUE: 2

C. FIFTY PERCENT TO ONE HUNDRED PERCENT. Most frequently materials containing over 50% asbestos were pipe and boiler wrapping or the fibrous, cotton candy, type sprayed-on insulation.

NUMERICAL VALUE: 3

Step 2: Exposure Number Calculation

The Exposure Number is derived from the Factor Scores by a formula. After entering the chosen Factor Scores on lines 1 through 8:

a) Sum factors 1 through 6 and enter opposite SUM;

b) Multiply factor 7 times factor 8, and enter opposite PRODUCT;

c) Multiply SUM times PRODUCT and enter opposite EXPOSURE NUMBER.

This number represents the result of your assessment for each area of the building. The values can range from 0 to 162. The higher the numerical value, the greater the potential for fiber release and therefore the more hazardous the situation. The Exposure Number must now be compared to the Corrective Action Scale, which is Step 3.

Step 3: Comparison of Exposure Number to Corrective Action Scale

Appendix B, Corrective Action Scale, presents five Priority Levels, and a range of Exposure Numbers for which that Priority Level is appropriate. Compare the Exposure Number derived in Step 2 to the Priority Levels in Appendix B. For example, an Exposure Number of 65 indicates that a Priority Level of I should be assigned. An Exposure Number of 10, however, indicates that a Priority Level of IV should be assigned. The proper response action for each Priority Level is found in Section IX of these standards.

APPENDIX B

CORRECTIVE ACTION SCALE

Priority Level	Exposure Number Range
I	61 - 16
II	40 - 6
III	20 - 3
IV	0 - 1
Significant Hazard Area	As Defined in Section I

† ASBESTOS SURVEY STANDARDS FOR BUILDINGS TO BE RENOVATED OR DEMOLISHED

I. Definitions

Abatement Contractor - company or individual properly licensed in the Commonwealth of Virginia who routinely conducts asbestos abatement activities such as, but not limited to removal, encapsulation or enclosure of asbestos containing materials in buildings.

Asbestos - means any material containing more than one percent of the asbestiform varieties of:

1. chrysotile (serpentine).
2. crocidolite (riebeckite),
3. amosite (cummingtonite-grunerite),
4. anthophyllite,
5. tremolite, or
6. actinolite.

Building - means a combination of any materials having a roof to form a structure for the use or occupancy by persons or property. The word "building" shall be construed as though followed by the words "or part or parts thereof" unless the content clearly requires a different meaning.

Building Manager - contact person representing the owning entity at each facility.

Building Official - individual designated by the Local Building Department to issue building permits for the renovation or demolition of buildings.

Competent Personnel - personnel who are qualified by education and/or experience to determine the presence of

asbestos and to assess its hazard, or to abate any such such hazard by proper encapsulation, enclosure, removal, repair or operations and maintenance of the asbestos containing material and who are licensed by the Virginia Department of Commerce pursuant to the requirements of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1. In addition, asbestos inspectors must meet the minimum competency requirements specified in Section IV(3) of these Standards.

Demolition - the wrecking or taking out of any load supporting structure member of a facility together with any related handling operations.

Director - shall mean the Director, Virginia Department of Housing and Community Development.

Encapsulation - the treatment of asbestos-containing materials with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

Enclosure - the construction or installation over or around the asbestos-containing material of any solid or flexible coverings, which will not deteriorate or decompose for an extended period of time, so as to conceal the material, contain all asbestos fibers and render the asbestos-containing material inaccessible.

Friable - material which is capable of being crumbled, pulverized, or reduced to powder by hand pressure or which under normal use or maintenance emits or can be expected to emit asbestos fibers into the air.

Homogenous Material - Any material that appears similar in terms of color, texture, pattern, date of material application and functional use.

Inspector - individual who physically inspects each building for materials that may contain asbestos, who is properly licensed to conduct building inspections for asbestos by the Virginia Department of Commerce pursuant to the requirements of Chapter 5 (§ 54.1-500 et.seq.) of Title 54.1 and who meets the additional requirements specified in Section IV(3) of these standards.

Management Planner - Individual who develops the plan to manage any identified or suspect asbestos containing materials in the facility, who is properly licensed by the Virginia Department of Commerce as an Asbestos Management Planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et.seq.) of Title 54.1.

NESHAPS - National Emission Standard for Hazardous Air Pollutants, Subpart M, National Emission Standard for Asbestos, Sections Sect. 61.140 - 61.156.

Notification - Procedure used to inform building occupants and visitors of the location, description and condition of all asbestos containing materials identified or suspected in the facility and of the existence and location of a plan to manage the material.

Removal - the physical removal of asbestos-containing material from a building and disposal thereof in accordance with all applicable regulations.

Renovation - altering in any way, one or more facility components. Operations in which load-supporting structure members are wrecked, or taken out, are excluded.

Repair - return friable asbestos-containing material to a condition where it is not friable.

Response Actions - means any action, including removal, encapsulation, enclosure, repair, method of operation, maintenance, record keeping or notification that protects human health from building materials containing asbestos.

Significant Hazard Area - Means any area where the asbestos containing material is highly friable, where more than 10% of the material is exposed, where the damage is widespread and the area is accessible to occupants including by any air handling system.

Team Leader - individual who is properly licensed as an asbestos inspector and management planner pursuant to the requirements of Chapter 5 (§ 54.1-500 et.seq.) of Title 54.1 and who meets the minimum requirements specified in Section IV(3)(B) of these standards.

Varying Visible Appearance - any visible difference in size, color, texture, degree of hardness, etc., which may indicate differing material. This term is synonymous with "visually distinct material."

II. Background.

There has been a growing public awareness of the link between the inhalation of asbestos fibers and various diseases such as asbestosis, mesothelioma, lung and other cancers. As a result, Legislation was enacted by the 1987 General Assembly (Article 5.2 Sect. 2.1-526.12 through 2.1-526.17) and was modified by the 1988 General Assembly which required the Department of General Services to develop survey standards for the inspection of buildings other than school buildings in order to identify the presence of asbestos and to the extent practicable the relative hazard to health or safety posed by any asbestos identified.

III. Purpose.

The primary purpose of these standards is to establish the minimum requirements, relevant to the inspection of each covered facility for asbestos, and the evaluation of the risk to human health within that facility.

IV. Scope.

1. According to Sect. 36-99.7 of the Code of Virginia, after January 1, 1989 the local building official shall not issue a building permit for a non-exempted building to be renovated or demolished until the building has been inspected according to these standards and the owner or his agent presents a statement signed by the inspector conducting the inspection that states either (1) no asbestos was detected or (2) asbestos was detected and response actions to abate any risk to human health have been completed or (3) asbestos was detected and response actions to abate any risk to human health have been or will be undertaken as a part of the renovation or demolition project. The inspection report must be signed by the inspector.

2. Exemptions: Any building meeting any one of the following conditions is exempt from the requirements of these standards.

a. built after January 1, 1978, or,

b. that is a single-family dwelling; or,

c. that is residential housing with four or fewer units; or,

d. that is a farm building; or,

e. that is a building with less than 3,500 square feet; or,

f. that is a building with no central heating system; or,

g. that is a building owned by a public utility that is required by law to give notification to the Commonwealth of Virginia and to the Environmental Protection Agency prior to removing asbestos in connection with the renovation or demolition of a building.

3. Minimum Competency Requirements:

A. Individuals conducting inspections of buildings for asbestos containing materials shall meet the following minimum requirements:

1) They shall have a valid Asbestos Inspector's License and Asbestos Management Planner's License issued by the Virginia Department of Commerce pursuant to the requirement of Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1, and have either;

a) successfully completed a minimum of two (2) weeks of intensive field training under the direction of a Team Leader or;

b) have a minimum of two (2) years experience in conducting field assessment surveys for asbestos containing materials in buildings.

B. Individuals filling positions of Team Leader shall meet the following minimum requirements.

1) They shall possess, at a minimum, a college degree (A.S. or B.S.) in a physical science or related scientific field (e.g. biology, environmental science, engineering, geology, etc.), and;

2) have a minimum of three years experience in conducting field assessment surveys for asbestos containing materials in buildings, and;

3) have a valid Asbestos Inspector's License and Management Planner's License issued by the Virginia Department of Commerce pursuant to Chapter 5 (§ 54.1-500 et. seq.) of Title 54.1.

V. Preliminary Assessment.

An initial assessment shall be made to determine if the building was built prior to January 1, 1978. Any disagreement shall be resolved according to the Appeals Process established by the Uniform Statewide Building Code.

All buildings covered by these standards must be inspected for asbestos prior to receiving a building permit for a renovation or demolition after January 1, 1989, by competent personnel as defined herein unless they are deemed exempt pursuant to Section IV.2 of these standards.

VI. Document Review and On-Site Survey.

A review should be made of all appropriate building construction documents (i.e., floor plans, blueprints, microfilm record, previous inspection records, asbestos abatement projects, etc.) to facilitate the identification of areas where asbestos may be present if available. A basic sketch of the representative floor plan showing any major detail must be prepared to identify bulk sample locations and general asbestos material location.

Any on-site inspections must be conducted by competent personnel properly licensed by the Virginia Department of Commerce who have the training to identify the presence of asbestos, and to assess, to the extent practicable, the relative hazard or hazards to health and safety posed at each location at which asbestos is suspected or identified. Each on-site survey shall include at least the following and be documented in a report to the owners.

1. Visual Inspection - All suspect asbestos-containing materials located in the renovation or demolition area that are or may become friable, as defined by these standards, during the renovation or demolition project must be identified. These areas may include but not be limited to:

A. rooms, hallways, and offices

B. mechanical and electrical equipment rooms

C. pipe chases

D. basements

E. attics

F. the space above ceilings, between walls, and below floors

G. steam tunnels

H. stairwells

I. closets and storage areas

J. all occupied and unoccupied spaces

K. crawl spaces, including soil as appropriate

L. Floor covering and mastic

M. Exterior coverings and roofs

In addition, identify and document the location of all fire doors suspected of containing asbestos. These locations are to be designated on the building sketches and included in the inspection report.

Note: Areas where access is impossible or prohibitive shall be identified on the building sketches. A notation must be made in the inspection report as to why the areas could not be investigated. All materials in these areas are to be considered to contain asbestos.

2. Bulk Sampling - representative bulk sampling of suspected asbestos-containing materials shall be conducted and submitted to a laboratory meeting the minimum requirements found in Section VII of these standards.

All sample areas shall be clearly marked and a permanent identification number corresponding to the respective samples and shall be identified on copies of the available construction drawings or the building sketches prepared by the inspector.

A. Representative samples of each distinct type of suspect asbestos-containing material shall be collected to confirm its asbestos content unless it is assumed to contain asbestos. Distinction between types of material shall be based on at least the following criteria:

1) visual appearance, size;

2) texture and hardness;

3) functional use, including but not limited to insulation, ceilings, walls, boilers, tanks, furnace, other mechanical equipment, ceiling pipes, pipe wrapping, elbow material, valve material, structural members, decks, beams, duct materials, roofs, exterior coverings, fire doors and/or stage curtains.

4) information provided by documents, interviews, or any source as to prior renovation or patchwork.

B. The minimum number of samples to be taken for each distinct type of suspected asbestos material shall be as follows:

1) Sprayed or troweled material - three random samples for each visually or functionally different material or known different application for up to 1,000 sq. ft., five random samples from 1,000 to 5,000 sq. ft., seven random samples from 5,000 to 10,000 sq. ft., and for every 5,000 sq. ft. over 10,000 sq. ft. one additional random sample will be taken. This rule applies to homogeneous material on each floor only.

2) Pipe and duct insulation - a minimum of one sample for every 150 linear feet of material of varying size or visual appearance per floor. Samples shall be taken where material is damaged or exposed where possible, to avoid breaching intact covering.

3) Valve or fitting muds - three samples of valve material or elbow mud for each insulated line of varying diameter or visual appearance per floor or area.

4) Boilers, tanks, and furnaces - three samples per unit if homogeneous.

5) Patchwork - one sample of each patch or repair.

6) Ceiling or acoustical tile - three samples for each material of varying visible appearance per floor.

7) Roofs and other exterior materials - 3 samples per 10,000 sq. ft. plus 1 additional sample per each additional 5000 sq. ft. per homogenous area or level.

8) Other materials - as determined as necessary by the inspector - but at least two samples per homogenous material per floor or level.

Note: Additional concerns should be addressed when sampling roof materials, such as proper patching procedures and "warranty" considerations.

C. Selection of sample location:

1) For sprayed on or troweled on material, the EPA guidelines located on pages 15-27 in "Asbestos - Containing Materials in School Buildings - Guidance for Analytical Programs" will be followed.

2) For other types of uses, visually distinct materials will be sampled.

D. Bulk Sample Size:

1) Samples shall be taken to penetrate all layers of the material. Samples should contain at least 15 cubic centimeters of material, and shall be placed in a container and sealed at the time of collection.

E. Sampling Precautions:

All precautions shall be taken to prevent exposure to those present in or around the facility during the collection of samples. The survey team is responsible for protecting occupants of the area and for patching the sampling area.

1) All sampling shall be conducted when building occupants are not in the immediate area, and preference shall be given to time when the areas being sampled are not in use.

When it is not possible to collect samples during a time when the facility is not being used, advance arrangements shall be made to evacuate the immediate sampling area(s) for the time necessary to collect the samples. The building manager is responsible for insuring that evacuation takes place.

2) Proper procedures and equipment shall be used during sampling to minimize fiber generation.

3) Area Protection and cleanup:

Care should be taken to minimize fiber release; however, any visible debris or residue generated during the sampling shall be thoroughly removed by wet wiping the debris or HEPA vacuuming. An area at least 4 feet in each direction shall also be cleaned using the above methods.

4) Locations from which samples are taken shall be patched as soon as the sampling has been completed by using methods and materials which are acceptable to the Project Manager and which are both structurally sound and aesthetically compatible. Each such location may be treated by low pressure application of an approved encapsulation.

5) When samples are taken in areas where the material is in poor condition, care must be taken to prevent further deterioration or fiber release.

a. The sample location will be adequately patched to prevent fiber release or deterioration by the inspector unless otherwise noted by the Building Manager in writing.

VII. Bulk Sample Analysis

1. Samples shall be analyzed by polarizing light microscopy using the EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020).

2. The inspector shall submit bulk samples for analysis to a laboratory that successfully participates in the National Institute of Standards and Technology (NITS) Quality Assurance Program or an approved equivalent Quality Assurance Program, and have certification/accreditation by the American Industrial Hygiene Association.

3. Sample Submissions:

A. Laboratory Analyst: Each analyst must have successfully completed a course in basic asbestos analysis, similar to that offered by Walter C. McCrone Associates of Chicago, Illinois. In addition, each analyst must have six months of on-the-job training with an analyst found acceptable through the NITS Quality Assurance Program/National Voluntary Laboratory Accreditation Program (NVLAP), or an approved equivalent.

VIII. Certification.

To determine compliance, documentation shall include at a minimum;

1. Qualifications of Inspector.

2. Qualifications of Laboratory and Analyst.

3. Documentation necessary to determine that the survey was conducted according to these standards.

4. Proposed action to comply with unmet requirements.

DEPARTMENT OF LABOR AND INDUSTRY

VOSH Program Directive

SUBJECT: Standard Interpretation: Applicability of Virginia Confined Space Standard, 1910.146, to Insurance Companies Employing Boiler and Pressure Vessel Safety Inspectors.

A. PURPOSE. This directive transmits VOSH Citation policy concerning the applicability of the Confined Space Standard for General Industry and the Construction Industry, 1910.146, to insurance companies employing boiler and pressure vessel safety inspectors.

B. SCOPE. This directive applies to all VOSH personnel and specifically to occupational health enforcement personnel.

C. ACTION. The assistant commissioner, enforcement directors and supervisors shall assure that the procedures outlined below are adhered to by enforcement personnel when citing 1910.146 in instances involving boiler and pressure vessel inspectors for insurance companies.

D. BACKGROUND. At the request of representatives from the insurance industry and boiler and pressure vessel

inspectors, a meeting was held on August 30, 1988, allowed by representatives from the insurance industry, inspectors, and the department. Members of the Safety and Health Codes Board attended as observers. As a result of the meeting the commissioner has approved this standard interpretation which addresses the concerns of the interested groups and conforms to guidelines in the Field Operations Manual.

E. GENERAL POLICY GUIDELINES.

1. The Department of Labor and Industry will recognize written contracts made between insurance companies and owner-users of boiler and pressure vessels regarding the provision of attendants and emergency equipment as required by 1910.146, when the procedures listed in G are followed.

2. Although an employer cannot contract away safety and health responsibilities, the department does recognize that those responsibilities may be met in a number of different ways on a multi-employer worksite.

3. The department will enforce 1910.146 in situations involving owner-users of boiler and pressure vessels and insurance inspectors in the same manner that it enforces other standards on multi-employer worksites.

F. SCOPE OF INTERPRETATION. This interpretation covers only those entries where 1910.146 requires an attendant. Such entries include instances where a potential for engulfment is present or in atmospheres presenting a potential for death, disablement, injury or acute illness from one or more of the following causes:

1. A flammable gas, vapor, or mist in excess of 10% of its lower explosive limit (LEL);

2. An oxygen deficient atmosphere containing less than 19.5% oxygen by volume or an oxygen enriched atmosphere containing more than 23% oxygen by volume;

3. An atmosphere concentration of any substance listed in Subpart Z of Part 1910 Standards above the listed numerical value of the permissible exposure limit (PEL); or

4. A condition immediately dangerous to life or health as defined in this subsection.

(NOTE: "Immediately dangerous to life or health (IDLH)" means any condition that poses an immediate threat to life, or which is likely to result in acute or immediately severe health effects.)

G. CITATION PROCEDURES ON MULTI-EMPLOYER WORKSITES INVOLVING OWNER-USERS OF BOILER AND PRESSURE VESSELS AND INSURANCE INSPECTORS.

1. Situations involving boiler and pressure vessels where one or more of the hazards mentioned in F is present are usually both created and controlled by one employer (the owner-user) while an employee of another employer (the insurance company inspector) may become exposed to the hazard in the normal course of work (inspecting the boiler or pressure vessel).

2. In situations such as the one described in G.1, the law imposes responsibility on both employers for the safety and health of their employees.

3. In a multi-employer worksite situation, the employer who neither creates or controls the hazard can avoid liability for a violation only by taking steps which are reasonable under the circumstances to protect their employees against the hazardous condition.

The employer must make a resonable effort to persuade the controlling employer to correct the hazard and remove or provide alternative means to protect their employees from danger until the situation is corrected (satisfactory "alternative means" would include proper atmospheric testing, personal protective equipment and training).

4. To encourage the correction or avoidance of hazards in a situation such as that described in G.1 (see also F.1 to F.4), the department will recognize a written contractual arrangement between owner-users and insurance companies as a reasonable means of achieving compliance with 1910.146 (see F, Scope of Interpretation). The written contractual agreement shall be executed before the insurance inspector enters the boiler and pressure vessel.

5. The written contractual agreement must comply with the requirements of 1910.146 and must be rigidly adhered to by both parties. The insurance companies' actions, not the owner-users, will guide VOSH decisions regarding responsibility when an employee of the insurance company is exposed to the hazard. The same rule applies to the owner-user when an employee of the owner-user is exposed to the hazard.

If the owner-user breaches the contract and fails to protect the insurance companies employees, it will be the insurance company's responsibility to assure that its employee refuses to conduct an inspection until the contract is followed (or provides satisfactory alternative means to protect the employee from the hazard as described in G.3 above). Where the owner-user provides no attendants or rescue equipment, the inspector shall not enter the boiler or pressure vessel without first assuring the presence of a qualified attendant and emergency equipment.

H. REFERENCE. Section V.F, Multi-Employer Worksites, of the VOSH Field Operations Manual (FOM).

DISTRIBUTION:

Commissioner of Labor and Industry
Assistant Commissioner for VOSH
VOSH Technical Services Director
Directors and Supervisors
Compliance Safety and Health Staff
Voluntary Compliance and Training Staff
OSHA Regional Administrator, Region III

NOTICES TO STATE AGENCIES

RE: Forms for filing material on dates for publication in the Virginia Register of Regulations.

All agencies are required to use the appropriate forms when furnishing material and dates for publication in the Virginia Register of Regulations. The forms are supplied by the office of the Registrar of Regulations. If you do not have any forms or you need additional forms, please contact: Jane Chaffin, Virginia Code Commission, P.O. Box 3-AG, Richmond, Va. 23208, telephone (804) 786-3591.

FORMS:

NOTICE OF INTENDED REGULATORY ACTION - RR01
NOTICE OF COMMENT PERIOD - RR02
PROPOSED (Transmittal Sheet) - RR03
FINAL (Transmittal Sheet) - RR04
EMERGENCY (Transmittal Sheet) - RR05
NOTICE OF MEETING - RR06
AGENCY RESPONSE TO LEGISLATIVE OR GUBERNATORIAL OBJECTIONS - RR08
DEPARTMENT OF PLANNING AND BUDGET (Transmittal Sheet) - DPBRR09

Copies of the Virginia Register Form, Style and Procedure Manual may also be obtained from Jane Chaffin at the above address.

CALENDAR OF EVENTS

Symbols Key
† Indicates entries since last publication of the Virginia Register
♿ Location accessible to handicapped
☎ Telecommunications Device for Deaf (TDD)/Voice Designation

NOTICE

Only those meetings which are filed with the Registrar of Regulations by the filing deadline noted at the beginning of this publication are listed. Since some meetings are called on short notice, please be aware that this listing of meetings may be incomplete. Also, all meetings are subject to cancellation and the Virginia Register deadline may preclude a notice of such cancellation.

For additional information on open meetings and public hearings held by the Standing Committees of the Legislature during the interim, please call Legislative Information at (804) 786-6530.

VIRGINIA CODE COMMISSION

EXECUTIVE

DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

February 22, 1989 - 2 p.m. – Public Hearing
Washington Building, 1100 Bank Street, 2nd Floor Board Room, Richmond, Virginia. ♿

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Department of Agriculture and Consumer Services intends to amend regulations entitled: **VR 115-03-01. Rules and Regulations Applicable to Controlled Atmosphere (CA) Apples.** These regulations prescribe requirements for apples identified as stored under controlled atmosphere conditions.

Statutory Authority: § 3.1-997 of the Code of Virginia.

Written comments may be submitted until February 3, 1989, to T. Graham Copeland, Jr., 1100 Bank Street, Room 210, Richmond, Virginia 23219.

Contact: Donald B. Ayers, Director of Commodity Services, Department of Agriculture and Consumer Services, 1100 Bank St., Room 804, Richmond, Va. 23219, telephone (804) 786-0480 or SCATS 786-0480

DEPARTMENT OF AIR POLLUTION CONTROL (STATE AIR POLLUTION CONTROL BOARD)

March 22, 1989 - 7:30 p.m. – Public Hearing
Dabney Lancaster Community College, Moomaw Student Center, Seminar Room, Clifton Forge, Virginia

March 22, 1989 - 10 a.m. – Public Hearing
Town Council Chambers, Town Hall, 329 Sixth Street, West Point, Virginia

March 22, 1989 - 2 p.m. – Public Hearing
Hopewell Circuit Court Room, Municipal Building, 300 North Main Street, Hopewell, Virginia

March 22, 1989 - 10 a.m. – Public Hearing
Franklin High School, 611 Crescent Drive, Auditorium, Franklin, Virginia

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the State Air Pollution Control Board intends to amend regulations entitled: **VR 120-01. Regulations for the Control and Abatement of Air Pollution.** The regulation requires the owner/operator to limit TRS emissions from the kraft pulp mill to a level resultant from the use of reasonably available control technology and necessary for the protection of public welfare.

Statutory Authority: § 10.1-1308 of the Code of Virginia.

Written comments may be submitted until March 22, 1989.

Contact: Robert A. Mann, Director, Division of Program Development, Department of Air Pollution Control, P.O. Box 10089, Richmond, Va. 23240, telephone (804) 786-5789 or SCATS 786-5789

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS

Board for Architects

† **February 3, 1989 - 9 a.m.** – Open Meeting
Travelers Building, 3600 West Broad Street, Richmond, Virginia. ♿

A meeting to (i) approve minutes of the December 16, 1988, meeting; (ii) review applications; (iii) review general correspondence; and (iv) review enforcement files.

Board for Professional Engineers

February 8, 1989 - 9 a.m. – Open Meeting
Travelers Building, 3600 West Broad Street, Richmond, Virginia. ♿

A meeting to (i) approve minutes of the November 9, 1988, meeting; (ii) review applications; (iii) review general correspondence; and (iv) review enforcement files.

Contact: Bonnie S. Salzman, Assistant Director, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230, telephone (804) 367-8514, toll-free 1-800-552-3016 or SCATS 367-8514

BOARD OF AUDIOLOGY AND SPEECH PATHOLOGY

† **February 8, 1989 - 1:30 p.m.** – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Koger Center-West, Richmond, Virginia. ♿

A regular board meeting.

Contact: Mark L. Forberg, Executive Director, 1601 Rolling Hills Dr., Richmond, Va. 23219-5005, telephone (804) 662-9111

VIRGINIA AVIATION BOARD

† **February 6, 1989 - 10 a.m.** – Open Meeting
Richmond International Airport, Board Room, Richmond, Virginia

A meeting to discuss matters affecting aviation in Virginia.

Contact: Kenneth A. Rowe, Director, Department of Aviation, 4508 S. Laburnum Ave., P.O. Box 7716, Richmond, Va. 23231, telephone (804) 786-6284

BOARD FOR BARBERS

† **February 27, 1989 - 9 a.m.** – Open Meeting
Travelers Building, 3600 West Broad Street, 5th Floor, Richmond, Virginia. ♿

A meeting to review (i) applications; (ii) correspondence; (iii) enforcement cases; (iv) regulations; and to (v) administer examinations.

Contact: Roberta L. Banning, Assistant Director, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230-4917, telephone (804) 367-8590 or toll-free 1-800-552-3016 (VA only)

LOCAL EMERGENCY PLANNING COMMITTEE OF CHESTERFIELD COUNTY

February 2, 1989 - 5:30 p.m. – Open Meeting
March 2, 1989 - 5:30 p.m. – Open Meeting
Chesterfield County Administration Building, 10001 Ironbridge Road, Room 502, Chesterfield, Virginia. ♿

A meeting to meet requirements of Superfund Amendment and Reauthorization Act of 1986.

Contact: Lynda G. Furr, Assistant Emergency Services Coordinator, Chesterfield Fire Department, P. O. Box 40, Chesterfield, Va. 23832, telephone (804) 748-1236

CHILD DAY-CARE COUNCIL

† **February 9, 1989 - 9 a.m.** – Open Meeting
Koger Executive Center, West End, Blair Building, 8007 Discovery Drive, Conference Rooms A and B, Richmond, Virginia. ♿ (Interpreter for deaf provided if requested)

The Child Day-Care Council will meet to discuss issues, concerns, and programs that impact licensed child care centers. The council will also review public comment received about the proposed child care center regulations. The contingency snow date is February 17, 1989.

Contact: Arlene Kasper, Program Development Supervisor, Division of Licensing Programs, Department of Social Services, 8007 Discovery Dr., Richmond, Va. 23229-8699, telephone (804) 662-9034 or SCATS 662-9034

CONSORTIUM ON CHILD MENTAL HEALTH

February 1, 1989 - 9 a.m. – Open Meeting
Eighth Street Office Building, 805 East Broad Street, 11th Floor Conference Room, Richmond, Virginia. ♿

A regular business meeting open to the public, followed by an executive session, for purposes of confidentiality, to review applications for funding of services to individuals.

Contact: Wenda Singer, Chair, Virginia Department for Children, 805 E. Broad St., Richmond, Va. 23219, telephone (804) 786-2208

INTERDEPARTMENTAL LICENSURE AND CERTIFICATION OF RESIDENTIAL FACILITIES FOR CHILDREN

Coordinating Committee

February 10, 1989 - 8:30 a.m. – Open Meeting
March 10, 1989 - 8:30 a.m. – Open Meeting
Office of the Coordinator, Interdepartmental Licensure and Certification, 1603 Santa Rosa Drive, Tyler Building, Suite 210, Richmond, Virginia. ♿

Regularly scheduled meetings to consider such administrative and policy issues as may be presented to the committee.

Contact: John J. Allen, Jr., Coordinator, Office of the

Coordinator, Interdepartmental Licensure and Certification, 8007 Discovery Dr., Richmond, Va. 23229-8699, telephone (804) 662-7124 or SCATS 662-7124

INTERDEPARTMENTAL COUNCIL ON RATE-SETTING FOR CHILDREN'S FACILITIES

January 30, 1989 - 10 a.m. – Open Meeting
Department of Corrections, 6900 Atmore Drive, Board Room, 3rd Floor, Richmond, Virginia. ♿ (Interpreter for deaf provided if requested)

The Service Provider Representative to the Interagency Consortium on Severely Emotionally Disturbed Children, who is appointed by the Rate-Setting Council, will report the Consortium's first year of activities. The council will adjourn into the Task Force on Regulation Revision and the Task Force on Coordination with Licensing of Out-of-State Issues. After lunch, the meeting will reconvene for a regular business meeting.

Contact: Nancy W. Bockes, 120 Armory Rd., Galax, Va. 24333, telephone (703) 236-2452

BOARD FOR CONTRACTORS

† **April 19, 1989 - 9 a.m.** – Open Meeting
Travelers Building, 3600 West Broad Street, Richmond, Virginia. ♿

A quarterly meeting to (i) address policy and procedural issues, (ii) review and render decisions on applications for contractors' licenses, (iii) review staff recommendations for revisions to its rules and regulations, and (iv) review and render case decisions on matured complaints against licensees. The meeting is open to the public; however, a large portion of the board's business will be discussed in the executive session.

Contact: Laster G. Thompson, Jr., Assistant Director, 3600 W. Broad St., Richmond, Va. 23230, telephone (804) 367-8557 or toll-free 1-800-552-3016

BOARD OF CORRECTIONS

† **February 15, 1989 - 10 a.m.** – Open Meeting
6900 Atmore Drive, Board of Corrections Board Room, Richmond, Virginia. ♿

A regular monthly meeting to consider such matters as may be presented to the board.

Contact: Vivian Toler, Secretary to the Board, 6900 Atmore Dr., Richmond, Va. 23225, telephone (804) 674-3235

BOARD FOR COSMETOLOGY

† **February 13, 1989 - 9 a.m.** – Open Meeting
Travelers Building, 3600 West Broad Street, 5th Floor, Richmond, Virginia. ♿

A meeting to (i) review correspondence; (ii) review applications; (iii) review enforcement cases; and (iv) discuss routine board business.

Contact: Roberta L. Banning, Assistant Director, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230-4917, telephone (804) 367-8590 or toll-free 1-800-552-3016 (VA only)

GOVERNOR'S MIGRANT AND SEASONAL FARMWORKERS BOARD

NOTE: CHANGE OF MEETING DATE
February 1, 1989 - 10 a.m. – Open Meeting
Fourth Street Office Building, 205 North Fourth Street, 2nd Floor, Conference Room, Richmond, Virginia. ♿

A regular meeting of the board.

Contact: Marilyn Mandel, Division Director, Department of Labor and Industry, P.O. Box 12064, Richmond, Va. 23241, telephone (804) 786-2385 or SCATS 786-2385

DEPARTMENT OF FIRE PROGRAMS

February 3, 1989 - 9 a.m. – Public Hearing
Holiday Inn-Downtown, 301 West Franklin Street, Richmond, Virginia

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Department of Fire Services intends to amend regulations entitled: **VR 310-01-02. Regulations Establishing Certification Standards for Fire Inspectors.** This regulation establishes certification standards for fire inspectors and is amended to incorporate training required as a result of revisions to the Code of Virginia by the 1988 General Assembly authorizing search warrants for inspection or reinspection of buildings.

Statutory Authority: § 9-155 of the Code of Virginia.

Written comments may be submitted until February 3, 1989.

Contact: Robert A. Williams, Department of Fire Programs, James Monroe Bldg., 101 N. 14th St., Richmond, Va. 23219, telephone (804) 225-2681 or SCATS 225-2681

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February 3, 1989 - 9 a.m. – Public Hearing
Holiday Inn-Downtown, 301 West Franklin Street,

Richmond, Virginia

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Department of Fire Programs intends to adopt regulations entitled: **VR 310-01-04. Regulations Governing the Certification of Instructors Providing Training at Local Fire Training Facilities.** Regulations Governing the Certification of Instructors Providing Training at Local Fire Training Facilities will require localities using Fire Programs Funds for local fire training construction, improvement and expansion to use instructors meeting standards approved by the Virginia Fire Services Board.

Statutory Authority: §§ 9-155 and 38.2-401 of the Code of Virginia.

Written comments may be submitted until 5 p.m., February 10, 1988.

Contact: Carl N. Cimino, Executive Director, Department of Fire Programs, James Monroe Bldg., 101 N. 14th St., Richmond, Va. 23219, telephone (804) 225-2681 or SCATS 225-2681

VIRGINIA FIRE SERVICES BOARD

† **February 3, 1989 - 9 a.m.** – Open Meeting
Holiday Inn-Downtown, 301 West Franklin Street, Richmond, Virginia.

A meeting to discuss fire training and fire policies. The meeting is open to the public for their input.

EMS Education and Training Committee

† **February 2, 1989 - 1 p.m.** – Open Meeting
Holiday Inn-Downtown, 301 West Franklin Street, Richmond, Virginia.

A committee meeting to discuss fire training and fire policies. The committee meeting is open to the public for their input.

Fire Prevention and Control Committee

† **February 2, 1989 - 9 a.m.** – Open Meeting
Holiday Inn-Downtown, 301 West Franklin Street, Richmond, Virginia.

A committee meeting to discuss fire training and fire policies. The committee meeting is open to the public for their input.

Legislative Committee

† **February 2, 1989 - 1 p.m.** – Open Meeting
Holiday Inn-Downtown, 301 West Franklin Street, Richmond, Virginia.

A committee meeting to discuss fire training and fire policies. The committee meeting is open to the public for their input.

Contact: Anne J. Bales, Executive Secretary Senior, James Monroe Bldg., 17th Fl., 101 N. 14th St., Richmond, Va. 23219, telephone (804) 225-2681 or SCATS 225-2681

BOARD OF FUNERAL DIRECTORS AND EMBALMERS

January 31, 1989 - 9 a.m. – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Conference Room 1, Richmond, Virginia.

Informal fact-finding conferences (disciplinary matters).

Contact: Mark L. Forberg, Executive Secretary, 1601 Rolling Hills Dr., Richmond, Va. 23229-5005, telephone (804) 662-9907

DEPARTMENT OF GENERAL SERVICES

Art and Architectural Review Board

† **February 3, 1989 - 10 a.m.** – Open Meeting
Virginia Museum of Fine Arts, Boulevard and Grove Avenue, Main Conference Room, Richmond, Virginia

The board will advise the Director of the Department of General Services and the Governor on architecture of state facilities to be constructed and works of art to be accepted or acquired by the Commonwealth.

Contact: M. Stanley Krause, AIA, AICP, Architect, Rancorn, Wildman and Krause, Architects, P.O. Box 1817, Newport News, Va. 23601, telephone (804) 867-8030

Division of Consolidated Laboratory Services

† **February 3, 1989 - 9:30 a.m.** – Open Meeting
James Monroe Building, 1 North 14th Street, Conference Room D, Richmond, Virginia.

The advisory board will discuss issues, concerns and programs that impact the Division of Consolidated Laboratory Services and its user agencies.

Contact: Dr. A. W. Tiedemann, Jr., Director, Division of Consolidated Laboratory Services, 1 N. 14th St., Richmond, Va. 23219, telephone (804) 786-7905

DEPARTMENT OF HEALTH

March 3, 1989 - 10 a.m. – Public Hearing
James Madison Building, 109 Governor Street, Main Floor Conference Room, Richmond, Virginia.

Notice is hereby given in accordance § 9-6.14:7.1 of the Code of Virginia that the Department of Health intends to adopt regulations entitled: **Regulations Governing Application Fees for Construction Permits for Onsite Sewage Disposal Systems and Private Wells.** These regulations establish application fees for an onsite sewage disposal system permit or a private well construction permit. Fee waiver and refund procedures are also established.

Statutory Authority: §§ 32.1-164 and 32.1-176.4 of the Code of Virginia.

Written comments may be submitted until 5 p.m., March 3, 1989.

Contact: Robert B. Stroube, M.D., M.P.H., Deputy Commissioner, Community Health Services, James Madison Bldg., 109 Governor St., Richmond, Va. 23219, telephone (804) 786-3575

BOARD OF HEALTH PROFESSIONS

Subcommittee of Public and Professional Information and Education Committee Annual Conference Planning Committee

† **February 8, 1989 - 4 p.m.** – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Conference Room 3, Richmond, Virginia. &

A meeting to plan a conference for evaluating regulations of the department.

Contact: Richard Morrison, Executive Director, 1601 Rolling Hills Dr., Richmond, Va. 23229, telephone (804) 662-9918

STATE COUNCIL OF HIGHER EDUCATION

† **February 1, 1989 - 9 a.m.** – Open Meeting
James Monroe Building, 101 North 14th Street, 9th Floor Conference Room, Richmond, Virginia. &

A monthly council meeting. The agenda is available upon request.

Contact: Marla Richardson, 101 N. 14th St., 9th Fl., Richmond, Va. 23219, telephone (804) 225-2638

HOPEWELL INDUSTRIAL SAFETY COUNCIL

February 7, 1989 - 9 a.m. – Open Meeting
March 7, 1989 - 9 a.m. – Open Meeting
Hopewell Community Center, Second and City Point Road, Hopewell, Virginia. & (Interpreter for deaf provided if requested)

Local Emergency Preparedness Committee Meeting on Emergency Preparedness as required by SARA Title III.

Contact: Robert Brown, Emergency Services Coordinator, 300 N. Main St., Hopewell, Va. 23860, telephone (804) 541-2298

VIRGINIA HOUSING DEVELOPMENT AUTHORITY

February 17, 1989 – Written comments may be submitted until this date.

Notice is hereby given in accordance § 9-6.14:7.1 of the Code of Virginia that the Virginia Housing Development Authority intends to amend regulations entitled: **VR 400-02-0003. Procedures, Instructions and Guidelines for Mortgage Loans to Persons and Families of Low and Moderate Income.**

Statutory Authority: § 36-55.30:3 of the Code of Virginia.

Written comments may be submitted until February 17, 1989.

Contact: J. Judson McKellar, Jr., General Counsel, Virginia Housing Development Authority, 13 S. 13th St., Richmond, Va. 23219, telephone (804) 786-1986

COUNCIL ON HUMAN RIGHTS

† **February 9, 1989 - 10 a.m.** – Open Meeting
March 9, 1989 - 10 a.m. – Open Meeting
James Monroe Building, 101 North 14th Street, 18th Floor Conference Room, Richmond, Virginia. &

A monthly council meeting.

Contact: Alison Browne Parks, Administrative Staff Specialist, P.O. Box 717, Richmond, Va. 23206, telephone (804) 225-2292, SCATS 225-2292 or toll-free 1-800-633-5510/TDD ☎

STATE LOTTERY BOARD

† **February 22, 1989 - 10 a.m.** – Open Meeting
State Lottery Department, 2201 West Broad Street, Conference Room, Richmond, Virginia. &

A regularly scheduled monthly meeting of the board. Business will be conducted according to items listed on agenda which has not yet been determined.

Contact: Barbara L. Robertson, Lottery Staff Officer, State Lottery Department, 2201 W. Broad St., Richmond, Va. 23220, telephone (804) 367-9433 or SCATS 367-9433

MARINE RESOURCES COMMISSION

† **February 7, 1989 - 9:30 a.m.** – Open Meeting
Newport News City Council Chambers, 2400 Washington Avenue, Newport News, Virginia.

The Virginia Marine Resources Commission will meet on the first Tuesday of each month at 9:30 a.m., in Newport News City Council Chambers, located at 2400 Washington Avenue, Newport News, Virginia. It hears and decides cases on fishing licensing, oyster ground leasing, environmental permits in wetlands, bottomlands, coastal sand dunes and beaches. It hears and decides appeals made on local wetlands board decisions.

Fishery Management and conservation measures are discussed by the commission. The commission is empowered to exercise general regulatory power within 15 days and is empowered to take specialized marine life harvesting and conservation measures within 5 days.

Contact: Sandra S. Schmidt, Secretary to the Commission, 2401 West Avenue, P.O. Box 756, Newport News, Va. 23607-0756, telephone (804) 247-2208

LOCAL EMERGENCY PLANNING COMMITTEE FOR THE CITY OF MARTINSVILLE AND HENRY COUNTY

February 9, 1989 - 9:30 a.m. – Open Meeting
Martinsville Municipal Building, Martinsville, Virginia.

March 9, 1989 - 9:30 a.m. – Open Meeting
Henry County Administration Building, Collinsville, Virginia.

An open meeting to discuss general business relating to SARA Title III.

Contact: Benny Summerlin, Public Safety Director, Henry County Administration Bldg., P.O. Box 7, Collinsville, Va. 24078, telephone (703) 638-5311, ext. 256

BOARD OF MEDICINE

Ad Hoc Committee on Optometry

February 3, 1989 - 2 p.m. – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Richmond, Virginia.

A meeting to review the transcript of the public hearing held on December 20, 1988, and prepare for onsite visits to schools of optometry and medicine and other pertinent matters.

Credentials Committee

† **February 4, 1989 - 8:15 a.m.** – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Surry Building, 2nd Floor, Board Room 1, Richmond, Virginia.

The Credentials Committee will meet to (i) conduct general business; (ii) interview and review medical credentials of applicants applying for licensure in Virginia in open and executive session and (iii) discuss any other items which may come before this committee.

Executive Committee

† **February 3, 1989 - 9 a.m.** – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Surry Building, Board Room 1, Richmond, Virginia.

The Executive Committee will meet in open session to (i) review the recodification of the Code of Virginia; (ii) review closed cases; (iii) discuss administrative procedures; and (iv) discuss any other items which may come before the committee.

Informal Conference Committee

† **February 1, 1989 - 10:30 a.m.** – Open Meeting
Radisson Hotel Lynchburg, 601 Main Street, Poplar Forrest Room, Lynchburg, Virginia.

A meeting to inquire into allegations that certain practitioners may have violated laws and regulations governing the practice of medicine in Virginia. The committee will meet in open and closed sessions pursuant to § 2.1-344 of the Code of Virginia.

Contact: Eugenia K. Dorson, Board Administrator, 1601 Rolling Hills Dr., Surry Bldg., 2nd Floor, Richmond, Va. 23229-5005, telephone (804) 662-9925

STATE MENTAL HEALTH, MENTAL RETARDATION AND SUBSTANCE ABUSE SERVICES BOARD

† **February 22, 1989 - 9:30 a.m.** – Open Meeting
Goochland-Powhatan Community Services Board, Goochland, Virginia.

A regular monthly meeting. The agenda will be published on February 15 and may be obtained by calling Jane Helfrich.

Contact: Jane V. Helfrich, State Board Staff, Department of Mental Health, Mental Retardation and Substance Abuse Services, P. O. Box 1797, Richmond, Va. 23214, telephone (804) 786-3921

DEPARTMENT OF MENTAL HEALTH, MENTAL RETARDATION AND SUBSTANCE ABUSE SERVICES; UNIVERSITY OF VIRGINIA INSTITUTE OF LAW, PSYCHIATRY AND PUBLIC POLICY, DIVISION OF CONTINUING EDUCATION, OFFICE OF CONTINUING LEGAL EDUCATION AND OFFICE OF CONTINUING MEDICAL EDUCATION

March 16, 1989 - Time to be announced – Open Meeting
March 17, 1989 - Time to be announced – Open Meeting
The Williamsburg Hilton, Colonial Williamsburg, Virginia. &

Twelfth Annual Symposium on Mental Health and the Law.

An annual symposium addressing issues related to mental health and the law. 9 hours in Category 1 CME, .9 CEU and 9 CLE credits applied for.

Contact: Lynn Daidone, Administrator, Institute of Law, Psychiatry and Public Policy, Box 100, Blue Ridge Hospital, Charlottesville, Va. 22901

BOARD OF NURSING

February 2, 1989 - 11 a.m. – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Conference Room 2, Richmond, Virginia. & (Interpreter for deaf provided if requested)

† **February 13, 1989 - 1 p.m.** – Open Meeting
The Commerce Bank Building, 500 Crawford Street, Suite 300, Portsmouth, Virginia. & (Interpreter for deaf provided if requested)

† **February 28, 1989 - 9 a.m.** – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Conference Room 2, Richmond, Virginia. & (Interpreter for deaf provided if requested)

A formal hearing will be held to inquire into allegations that certain laws and regulations governing the practice of nursing in Virginia may have been violated.

Informal Conference Committee

February 14, 1989 - 8:30 a.m. – Open Meeting
Koger Building, 8001 Franklin Farms Drive, Suite 124, Richmond, Virginia. & (Interpreter for deaf provided if requested)

February 24, 1989 - 8:30 a.m. – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Conference Room 2, Richmond, Virginia. & (Interpreter for deaf provided if requested)

A meeting to inquire into allegations that certain licensees may have violated laws and regulations governing the practice of nursing in Virginia.

Contact: Corinne F. Dorsey, R.N., Executive Director, 1601 Rolling Hills Dr., Richmond, Va. 23229, telephone (804) 662-9909 or toll-free 1-800-533-1560

PRINCE WILLIAM COUNTY, MANASSAS CITY, AND MANASSAS PARK CITY LOCAL EMERGENCY PLANNING COMMITTEE

February 3, 1989 - 2 p.m. – Open Meeting
February 17, 1989 - 2 p.m. – Open Meeting
March 3, 1989 - 2 p.m. – Open Meeting
March 17, 1989 - 2 p.m. – Open Meeting
March 31, 1989 - 2 p.m. – Open Meeting
1 County Complex Court, Prince William, Virginia. &

Local Emergency Planning Committee to discharge the provisions of SARA Title III.

Contact: Thomas J. Hajduk, Information Coordinator, 1 County Complex Court, Prince William, Va. 22192-9201, telephone (703) 335-6800

BOARD OF PROFESSIONAL COUNSELORS

† **February 9, 1989 - 3 p.m.** – Open Meeting
† **February 10, 1989 - 9 a.m.** – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Richmond, Virginia. &

A meeting to (i) consider general board business, including committee reports and response to correspondence; (ii) conduct regulatory review; and (iii) conduct a formal hearing.

Examination Committee

February 3, 1989 - 1 p.m. – Open Meeting
117 North Fairfax Street, Alexandria, Virginia

A meeting to discuss the oral examination process.

Scope of Practice Committee

February 3, 1989 - 9 a.m. – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Richmond, Virginia. &

A meeting to discuss the practice of professional counseling.

Contact: Joyce D. Williams, Administrative Assistant, 1601 Rolling Hills Dr., Richmond, Va. 23229, telephone (804) 662-9912 or SCATS 662-9912

BOARD ON CONSERVATION AND DEVELOPMENT OF PUBLIC BEACHES

February 1, 1989 - 10:30 a.m. – Open Meeting

203 Governor Street, 2nd Floor Conference Room, Richmond, Virginia.

Meeting to consider pre-proposals and proposals from various localities requesting matching grant funds from the board.

Contact: Jack E. Frye, Public Beach Advisor, P.O. Box 1024, Gloucester Point, Va. 23062, telephone (804) 642-7121 or SCATS 842-7121

BOARD FOR RIGHTS OF THE DISABLED

Protection and Advocacy for Mentally Ill Individuals Advisory Council

† **February 24, 1989 - 10 a.m.** – Open Meeting
James Monroe Building, 101 North 14th Street, 1st Floor, Conference Room C, Richmond, Virginia.

A regular meeting for the conducting of business.

Contact: Barbara Hoban, PAMI Program Manager, James Monroe Bldg., 101 N. 14th St., 17th Fl., Richmond, Va. 23219, telephone (804) 225-2042, SCATS 225-2042 or toll-free 1-800-552-3962/TDD ☎

SCOTT COUNTY LOCAL EMERGENCY PLANNING COMMITTEE

February 14, 1989 - 1:30 p.m. – Open Meeting
County Office Building, Gate City, Virginia.

Meeting of LEPC to discuss state recommendations of Annex A. 7 "Airborne Hazardous Substances."

Contact: Barbara Edwards, Public Information Officer, 112 Water St., Suite 1, Gate City, Va. 24251, telephone (703) 386-6521

STATE BOARD OF SOCIAL SERVICES

February 15, 1989 - 2 p.m. – Open Meeting
Department of Social Services, 8007 Discovery Drive, Richmond, Virginia.

A work session and formal business.

If necessary, the board will also meet February 16, 1989, at 9 a.m.

Contact: Phyllis Sisk, Administrative Staff Specialist, Department of Social Services, 8007 Discovery Dr., Richmond, Va. 23229-8699, telephone (804) 662-9236 or SCATS 622-9236

BOARD OF SOCIAL WORK

† **February 24, 1989 - 8:30 a.m.** – Open Meeting
Department of Health Professions, 1601 Rolling Hills Drive, Suite 200, Richmond, Virginia.

A meeting to (i) conduct general board business; (ii) review applications for licensure and supervision of trainees; (iii) respond to correspondence; and (iv) discuss proposed regulations.

Contact: Stephanie A. Sivert, Executive Director, 1601 Rolling Hills Dr., Suite 200, Richmond, Va. 23229, telephone (804) 662-9914

BOARD FOR PROFESSIONAL SOIL SCIENTISTS

† **February 16, 1989 - 9:30 a.m.** – Open Meeting
Travelers Building, 3600 West Broad Street, Richmond, Virginia.

A meeting to (i) approve minutes of the October 13, 1988, meeting; (ii) review public comments regarding regulations; (iii) discuss examination; (iv) approve final regulations, applicable; and (v) review correspondence.

Contact: Bonnie S. Salzman, Assistant Director, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230, telephone (804) 367-8514, SCATS 367-8514 or toll-free 1-800-552-3016

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February 16, 1989 - 11 a.m. – Public Hearing
Travelers Building, 3600 West Broad Street, Conference Room 1, Richmond, Virginia.

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Board for Professional Soil Scientists intends to adopt regulations entitled: **VR 627-01-1. Public Participation Guidelines.** These proposed regulations set forth public participation guidelines for the purpose of soliciting the input of interested parties in the formation and development of regulations for the Board for Professional Soil Scientists.

Statutory Authority: § 54-1.28 of the Code of Virginia.

Written comments may be submitted until February 6, 1989.

Contact: Bonnie S. Salzman, Assistant Director, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230, telephone (804) 367-8514, SCATS 367-8514 or toll-free 1-800-552-3016

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February 16, 1989 - 11 a.m. – Public Hearing
Travelers Building, 3600 West Broad Street, Conference Room 1, 5th Floor, Richmond, Virginia.

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Board for Professional Soil Scientists intends to adopt regulations entitled: **VR 627-02-1. Board for Professional Soil Scientists Regulations.** The purpose of these proposed regulations is to establish the requirements for certification of professional soil scientists.

Statutory Authority: § 54-1.28 of the Code of Virginia.

Written comments may be submitted until February 6, 1989.

Contact: Bonnie S. Salzman, Assistant Director, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230, telephone (804) 367-8514, SCATS 367-8514 or toll-free 1-800-552-3016

COMMONWEALTH TRANSPORTATION BOARD

† **February 16, 1989 - 10 a.m.** – Open Meeting
† **March 16, 1989 - 10 a.m.** – Open Meeting
Department of Transportation, 1401 East Broad Street, Board Room, Richmond, Virginia. (Interpreter for deaf provided if requested)

A monthly meeting to vote on proposals presented regarding bids, permits, additions and deletions to the highway system, and any other matters requiring board approval.

Contact: Albert W. Coates, Jr., Assistant Commissioner, Department of Transportation, 1401 E. Broad St., Richmond, Va. 23219, telephone (804) 786-9950

VIRGINIA BOARD FOR THE VISUALLY HANDICAPPED

March 1, 1989 - 11 a.m. – Open Meeting
397 Azalea Avenue, Richmond, Virginia. (Interpreter for deaf provided if requested)

A meeting to review policies and procedures of the Virginia Department for the Visually Handicapped. The board reviews and approves the department's budget and operating plan.

Contact: Diane E. Allen, Executive Secretary Senior, 397 Azalea Ave., Richmond, Va. 23227, telephone (804) 371-3145, toll-free 1-800-622-2155, SCATS 371-3145 or 371-3140/TDD

VIRGINIA COUNCIL ON VOCATIONAL EDUCATION

† **February 8, 1989 - 9:30 a.m.** – Open Meeting
† **February 9, 1989 - 10 a.m.** – Open Meeting
Richmond Marriott, 500 East Broad Street, Richmond, Virginia

February 8, 1989
9:30 a.m. - Committee on State Plan and Private Sector Improvement
11 a.m. - Committee on Evaluation and Access
1:45 p.m. - Business Session: Reports will be received from council committees, the Department of Education, the Governor's Job Training Coordinating Council, the Virginia Community College System, and the Department of Planning and Budget
3:15 p.m. - Work Session: Council will review agenda and presentations for meeting with Virginia Board of Education on February 9, 1989

February 9, 1989
10 a.m. - Meet with the Virginia Board of Education during its meeting in the James Monroe Building to present council recommendations and discuss issues related to vocational-technical education.

Contact: George S. Orr, Jr., Executive Director, Virginia Council on Vocational Education, P.O. Box U, Blacksburg, Va. 24063-1035, telephone (703) 961-6945

DEPARTMENT OF WASTE MANAGEMENT

February 15, 1989 - 10 a.m. – Public Hearing
James Monroe Building, 101 North 14th Street, 11th Floor, Richmond, Virginia.

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Virginia Department of Waste Management intends to amend regulations entitled: **VR 672-30-1. Regulations Governing the Transportation of Hazarous Materials.** Amendment 7 proposes to incorporate by reference changes made from January 1, 1987, through June 30, 1988, by the US Dot Hazardous Materials Regulations. Section 2.8 is being revised to reflect changes made to § 10.1-451 of the Code of Virginia, as amended by the 1988 Session of the General Assembly. The proposed Amendment 7 to these regulations includes changes to the U.S. Department of Transportation (DOT) regulations on hazardous materials transportation and motor carrier safety. These new provisions enacted by the U.S. DOT from January 1, 1987, through June 30, 1988, require that changes be made to the existing state regulations. These proposed changes maintain consistency with the federal regulations.

Statutory Authority: §§ 10.1-1402 and 10.1-1450 of the Code of Virginia.

Written comments may be submitted until February 15, 1989, to William F. Gilley, Department of Waste Management, James Monroe Building, 101 North 14th

Street, 11th Floor, Richmond, Virginia 23219.

Contact: Cheryl Cashman, Legislative Analyst, Department of Waste Management, James Monroe Bldg., 101 N. 14th St., Richmond, Va. 23219, telephone (804) 225-2667 or toll-free 1-800-552-2075

STATE WATER CONTROL BOARD

February 27, 1989 - 2:30 p.m. – Public Hearing
NOTE: CHANGE OF MEETING TIME
Harrisonburg City Council Chambers, 345 South Main Street, Harrisonburg, Virginia

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the State Water Control Board intends to amend regulations entitled: **VR 680-16-14. Potomac-Shenandoah River Basin Water Quality Management Plan.** The purpose of the proposed amendment is to revise the five-day biochemical oxygen demand loading requirements for North River at the Harrisonburg-Rockingham Regional Sewer Authority sewage treatment plant.

Statutory Authority: § 62.1-44.15(3) of the Code of Virginia.

Written comments may be submitted until 4 p.m., March 17, 1989, to Doneva Dalton, Hearing Reporter, State Water Control Board, P.O. Box 11143, Richmond, Virginia 23230.

Contact: Charles T. Mizell, Water Resources Development Supervisor, State Water Control Board, Valley Regional Office, P.O. Box 268, Bridgewater, Va. 22812, telephone (703) 828-2595 or SCATS 332-7879

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† **February 27, 1989 - 10:30 a.m.** – Public Hearing
Warm Springs Courthouse, Courthouse Road, Conference Room, Warm Springs, Virginia

Notice is hereby given that the public hearing scheduled for 2 p.m. on Monday, January 9, 1989, regarding a proposed amendment to the Water Quality Standards to reclassify Hot Springs Run to mountainous zone waters has been rescheduled.

Comments on the proprosed reclassification of Hot Springs Run will now be accepted until 4 p.m. on Friday, March 3, 1989. Comments should be sent to Ms. Doneva Dalton, Hearing Reporter, State Water Control Board, P.O. Box 11143, Richmond, Virginia 23230, telephone (804) 367-6829.

Contact: Elleanore Moll, Environmental Program Planner, State Water Control Board, P.O. Box 11143, Richmond, Va. 23230, telephone (804) 367-6418

BOARD FOR WATERWORKS AND WASTEWATER WORKS OPERATORS

March 22, 1989 - 1 p.m. – Public Hearing
Howard Johnson Motor Lodge, 3207 North Boulevard, Richmond, Virginia

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Board for Waterworks and Wastewater Works Operators intends to amend regulations entitled: **VR 675-01-01. Public Participation Guidelines.** The purpose of these guidelines is to solicit input of interested parties in the formation and development of regulations for the Board for Waterworks and Wastewater Works Operators.

Statutory Authority: §§ 54.1-103 and 54.1-201 of the Code of Virginia.

Written comments may be submitted until March 6, 1989.

Contact: Geralde W. Morgan, Administrator, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230-4917, telephone (804) 367-8534 or toll-free 1-800-552-3016

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March 22, 1989 - 1 p.m. – Public Hearing
Howard Johnson Motor Lodge, 3207 North Boulevard, Richmond, Virginia

Notice is hereby given in accordance with § 9-6.14:7.1 of the Code of Virginia that the Board for Waterworks and Wastewater Works Operators intends to amend regulations entitled: **VR 675-01-02. Board for Waterworks and Wastewater Works Operators Regulations.** The proposed regulations of the Board for Waterworks and Wastewater Works Operators provide general information, entry requirements and standards of practice for licensure as waterworks and wastewater works operators in this Commonwealth. These regulations supersede all previous regulations of the board.

Statutory Authority: §§ 54.1-103 and 54.1-201 of the Code of Virginia.

Written comments may be submitted until March 6, 1989.

Contact: Geralde W. Morgan, Administrator, Department of Commerce, 3600 W. Broad St., Richmond, Va. 23230-4917, telephone (804) 367-8534 or toll-free 1-800-552-3016

THE COLLEGE OF WILLIAM AND MARY

Board of Visitors

† **February 9, 1989 - 3 p.m.** – Open Meeting
† **February 10, 1989 - 8 a.m.** – Open Meeting
Campus Center, Jamestown Road, Williamsburg, Virginia.

A regularly scheduled meeting of the Board of Visitors of the College of William and Mary to review quarterly operations of the College and Richard Bland College, to receive reports from several committees of the board, and to act on those resolutions that are presented by the administrations of William and Mary and Richard Bland College.

An informational release will be available four days prior to the board meeting for those individuals or organizations who request it.

Contact: Office of University Relations, College of William and Mary, James Blair Hall, Room 308, Williamsburg, Va. 23185, telephone (804) 253-4226

WINCHESTER LOCAL EMERGENCY PLANNING COMMITTEE

† **February 1, 1989 - 3 p.m.** – Open Meeting
Frederick County Treasurer's Building, 29 Court Square, Treasurer's Conference Room, Winchester, Virginia

The committee will be continuing its discussion of the fine points of Public Law 99-499–The Superfund Amendments and Reauthorization Act of 1986. The committee will also be hearing reports from the Community Awareness, Training, and Response Preparedness subcommittees.

Contact: L. A. Miller, Fire Chief, Secretary, Local Emergency Planning Committee, 126 N. Cameron St., Winchester, Va. 22601, telephone (703) 662-2298

COUNCIL ON THE STATUS OF WOMEN

January 31, 1989 - 8 p.m. – Open Meeting
Richmond Radisson, 555 East Canal Street, Richmond, Virginia

Meetings of the Standing Committees of the Virginia Council on the Status of Women.

February 1, 1989 - 9:30 p.m. – Open Meeting
Richmond Radisson, 555 East Canal Street, Richmond, Virginia

A regular meeting to conduct general board business and to receive reports from Council Standing Committees.

Contact: Bonnie H. Robinson, Executive Director, 8007 Discovery Dr., Richmond, Va. 23229-8699, telephone (804) 662-9200 or SCATS 662-9200

LEGISLATIVE MEETINGS

Notice to Subscribers

Legislative meetings held during the Session of the General Assembly are exempted from publication in The Virginia Register of Regulations. You may call Legislative Information for information on standing committee meetings. The number is (804) 786-6530.

CHRONOLOGICAL LIST

OPEN MEETINGS

January 30
Children's Facilities, Interdepartmental Council on Rate-Setting for

January 31
Funeral Directors and Embalmers, Board of
Women, Council on the Status of

February 1
Child Mental Health, Consortium on
Conservation and Development of Public Beaches, Board on
Farmworkers Board, Governor's Migrant and Seasonal
† Higher Education, State Council of
† Medicine, Board of
- Informal Conference Committee
† Winchester Local Emergency Planning Committee
Women, Council on the Status of

February 2
Chesterfield County, Local Emergency Planning Committee of
† Fire Services Board, Virginia
- EMS Education and Training Committee
- Fire Prevention and Control Committee
- Legislative Committee
Nursing, Board of

February 3
† Architects, Board for
† Fire Services Board, Virginia
† General Services, Department of
- Art and Architectural Review Board
- Division of Consolidated Laboratory Services
Medicine, Board of
- Ad Hoc Committee on Optometry
† - Executive Committee
Prince William County, Manassas City, and Manassas Park City Local Emergency Planning Committee
Professional Counselors, Board of
- Scope of Practice Committee

February 4
† Medicine, Board of
- Credentials Committee

February 6
† Aviation Board, Virginia

February 7
Hopewell Industrial Safety Council
† Marine Resources Commission

February 8
† Audiology and Speech Pathology, Board of
Architects, Professional Engineers, Land Surveyors and Landscape Architects, Board for
- Board for Professional Engineers
† Health Professions, Board of
- Subcommittee of Public and Professional Information and Education Committee
- Annual Conference Planning Committee
† Vocational Education, Virginia Council on

February 9
† Child Day-Care Council
† Human Rights, Council on
Martinsville and Henry County, Local Emergency Planning Committee for the City of
† Professional Counselors, Board of
† Vocational Education, Virginia Council on
† William and Mary, The College of
- Board of Visitors

February 10
Children, Coordinating Committee for Interdepartmental Licensure and Certification of Residential Facilities for
† Professional Counselors, Board of
† William and Mary, The College of
- Board of Visitors

February 13
† Cosmetology, Board for
† Nursing, Board of

February 14
Nursing, Board of
- Informal Conference Committee
Scott County Local Emergency Planning Committee

February 15
† Corrections, Board of
Social Services, State Board of

February 16
† Soil Scientists, Board for Professional
† Transportation Board, Commonwealth

February 17
Prince William County, Manassas City, and Manassas Park City Local Emergency Planning Committee

February 22
† Lottery Board, State
† Mental Health, Mental Retardation and Substance Abuse Services Board, State

February 24
Nursing, Board of
- Informal Conference Committee
† Rights of the Disabled, Board for
- Protection and Advocacy for Mentally Ill Individuals Advisory Council
† Social Work, Board of

February 27
† Barbers, Board for

February 28
† Nursing, Board of

March 1
Visually Handicapped, Virginia Board for the

March 2
Chesterfield County, Local Emergency Planning Committee of

March 3
Prince William County, Manassas City, and Manassas Park City Local Emergency Planning Committee

March 7
Hopewell Industrial Safety Council

March 9
Human Rights, Council on
Martinsville and Henry County, Local Emergency Planning Committee for the City of

March 10
Children, Coordinating Committee for Interdepartmental Licensure and Certification of Residential Facilities for Children

March 16
Mental Health, Mental Retardation, and Substance Abuse Services; University of Virginia Institute of Law, Psychiatry and Public Policy, Division of Continuing Education, Office of Continuing Legal Education and Office of Continuing Medical Education, Department of
† Transportation Board, Commonwealth

March 17
Mental Health, Mental Retardation and Substance Abuse Services; University of Virginia Institute of Law, Psychiatry and Public Policy, Division of Continuing Education, Office of Continuing Legal Education and Office of Continuing Medical Education, Department of
Prince William County, Manassas City, and Manassas Park City Local Emergency Planning Committee

March 31

Prince William County, Manassas City, and Manassas Park City Local Emergency Planning Committee

April 19
† Contractors, Board for

PUBLIC HEARINGS

February 3
Fire Programs, Department of

February 15
Waste Management, Department of

February 16
Soil Scientists, Board for Professional

February 22
Agriculture and Consumer Services, Department of

February 27
Water Control Board, State

March 3
Health, Department of

March 22
Air Pollution Control, Department of
Waterworks and Wastewater Works Operators, Board for

Calendar of Events