

Date: July 13, 2012

DHCD Workgroup #2

2012 USBC IBC, IFC, IEBC, IECC, IGCC, ICC pool code, 2015 ICC codes, pending technical issues, SFPC IFC technical proposals, Fire Services Board Code Committee's technical code changes, DHCD and BHCD's Codes and Standards Committee and legislators issues.

Location: Virginia Housing Center-directions

Date and Time: August 23rd, 2012 9:30a.m. to 3:00p.m.

Lunch provided by Reservations: Contact Janice Firestone at janice.firestone@dhcd.virginia.gov or 804-371-7150

Meeting Agenda

1. Introductions
2. 2012 Regulatory Schedule and Public Hearings
3. Codes and Issues:
 - 2012 IBC, IEBC, IECC, IFC, IGCC, ICC Pool Code Major Changes and costs. Review possible 2015 code changes for technical amendments into the 2012 USBC or SFPC
 - HJR 648 Study Group-Accessibility code changes for parking increases, carpet pads, alterations for parking lots and priority for accessible features under alterations. **(Handout p. 1)**
 - USBC IPC, IMC, IFGC, NEC code changes from WG 4 May 30th meeting for arc-faults, mechanical hoods for churches and other similar type occupancies. Review exhaust fans on standby power in common shaft for dryers. Review emergency water wells VDH USBC approvals. **(Handout p. 6)**
 - USBC 2009 technical amendments review for retention, amendments or deletion such as 410.2 or 716.5.3
 - USBC VCC NFPA 58 has retrofits for propane tanks over 4,000 gallons. Not enforceable unless adopted. Off list unless code change
 - USBC IBC I-1 review current provisions and any DSS proposed regulations. Review DSS UAS where rating system 3/4 or less I-1 and 4 or more I-2 VDH licensure required for residents. Review 2015 IBC I-1 condition 1 or 2 code changes. **Study group to be formed with stakeholders, DSS, code officials.**
 - USBC IBC I-2 2015 new code changes
 - USBC IBC review child care regulations being revised
 - USBC IBC review VDH MOA's smoking lounges and septic systems. Review abortion regulations with construction elements. **(Handout p. 10)**
 - USBC IBC Chapter 3 homeless shelters for extreme heat/cold seasonal use in other types occupancies, A, E, B, S existing buildings. VBCOA working on criteria.
 - USBC IBC exterior walls foam plastic insulation. Review 2015 code changes

- USBC IBC A-3 churches sprinkler threshold and area. TRB case. Design occupant load versus actual occupancy load. **(Handout p. 15)**
- USBC VCC IFC/IBC E 907.2.3 review voice alarm scope and data supporting changes
- USBC VCC review fire areas now include exterior areas like Home Depot garden areas or A restaurants outdoor seating areas for height, area, sprinklers, plumbing fixtures, fire resistance ratings
- USBC VCC IBC/IFC 906 fire extinguishers review technical amendment, 2012 and 2015 IBC/IFC. Should other occupancies be exempted where sprinkled or have them required? Review fire data past 10 year.
- USBC VCC IBC review DEQ revised regulations for AST's and related laws charts for UST for coordination purposes. **(Handout p. 20)**
- USBC VCC IBC review incidental and accessory uses 2012 and 2015 code changes. Do they work in mixed-uses and are they reasonable? R-5 podium buildings
- USBC VCC IBC/ICC pool code review for amendments and format along with VDH proposed pool regulations for coordination of construction and operational standards and regulations WG 4 doing. **(Handout p. 41)**
- USBC VCC review 408.2 lock-up cells in B occupancies at police stations or courthouse-AIA
- USBC VCC 419 review live-work dwelling units 2012 and 2015 code changes. Not allowed R-5 review. WG 3 believes should be always IBC not R-5.
- USBC VCC IBC/IFC review technical amendment 403.3.5/911.1.3 fire command room. **Off list if no changes to USBC amendment.**
- USBC VCC IBC 903.2.7 M occupancy furniture stores upholstered furniture delete #4?
- USBC VCC IBC 903.2.8 TRB interpretation code change submitted review. **(Handout p. 63)**
- USBC VCC IBC 708.14 review elevator lobbies with 2015 code change where elevator lobby not required up to 420 feet except for occupant and fire service elevators. Can fire service and occupant elevators be used during normal times?
- USBC VCC IBC review earthquake requirements. **Off list as no new standards.**
- USBC VCC/SFPC control areas retroactive enforcement 2703.1, 2703.8.3
- USBC VCC IBC/IFC review tables for permissible fireworks in M and B occupancies. Should quantity be increased or 1.4G and permissible firework less than .25 grams are listed separately.
- USBC VCC/IPC/IBC/VDH regulations and IBC Chapter 11 for marinas, fishing piers, golf courses and boat slip for accessible routes, showers and bathrooms scope and accessibility. Now in revised ADA. See 2015 IBC and A117.1 WG 4 reviewing. USBC IBC A117.1 consider children water closets being in the USBC and IBSR. **(Handout p. 64)**

- USBC VCC/VRC review coordination for additions to existing buildings and structural loading and VRC 101.6. Do we need clarification?
 - USBC VCC, VRC review 2015 code changes for relocatable modular's.
 - USBC VCC/SFPC review A17.1 fire service keys being acceptable to BO and FO.
 - USBC VCC IECC/IGCC review for any inclusion such as above-code standards for 40% to net-zero energy savings
 - USBC VCC IECC review smoke control systems and elevator/shaft pressurization for conflicts. **Off list no conflicts.**
 - USBC VCC IECC exterior lighting what is covered and not for site or parking lot lighting?
 - USBC VCC IECC review Appendix G and energy cost budgets
 - USBC VCC IECC review lamps and fixtures increases to 75%
 - USBC IECC review code changes from the VBCOA energy committee and those submitted by individuals. **(Handout p. 82)**
 - SFPC IFC review I-1 for fire drills. Should they be reduced or allow in bad weather to be inside to a designated assembly point?
 - SFPC placarding coordinate with USBC provisions and unsafe buildings. Carry-over from 2009 discussions.
 - SFPC IFC I-1 and R-2 newly introduced furniture review for changes
 - SFPC IFC review electric and hydrogen vehicles storage and fueling
 - SFPC IFC parking of fuel tank trucks in residential areas, TRB pending case.
4. Other business
 5. Next meeting November 8, 2012. Likely to have 2 and possible 3 meetings in 2013 with 3rd meeting in 1st part of 2013.
 6. Adjournment

Summary notes will be done and distributed to attendees and posted on the DHCD/BFRD web-site.

Attachments to be on the DHCD web-site and sent out to code associations. Submitted code changes will be distributed for November 8th meeting and decision on consensus or not.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: 2011 HJR 648 Workgroup Representing: _____

Mailing Address: _____

Email Address: _____ Telephone Number: _____

Proposal Information

Code(s) and Section(s): USBC, Virginia Construction Code Section 1109.16

Proposed Change (including all relevant section numbers, if multiple sections):

Add new Section 1109.16 to read as follows:

1109.16 Carpet pad. Carpet pad, cushion or backing, if used, shall comply with ICC A117.1. The use of the term "firm" in Section 302.2 of ICC A117.1 shall mean that the carpet pad, cushion or backing shall not contribute to the sinking or lowering of the bottom of the carpet or carpet tile more than ¼ inch (6.4 mm) when traversed by the wheels of the user of a wheelchair.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is to clarify the requirement for firmness of newly installed carpet pad, cushion or backing. The pad, cushion or backing should not contribute to the resistance of movement for wheelchair users beyond that of the carpet itself. It has been noted that heavy padding used in some hotels to achieve a plush look and feel for the floor covering makes it difficult to traverse for a wheelchair user.

Submittal Information

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



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Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: 2011 HJR 648 Workgroup Representing: _____

Proposal Information

Code(s) and Section(s): USBC, VCC Section 3411.7 and USBC, VRC, Sections 410.7 and 705.2

Proposed Change (including all relevant section numbers, if multiple sections):

Add a note to Section 3411.7 of the Virginia Construction Code and to Sections 410.7 and 705.2 of the Virginia Rehabilitation Code to read as follows:

Note: In choosing which accessible elements to provide, priority should be given to those elements that will provide the greatest access, in the following order.

1. Accessible parking spaces and an exterior accessible route.
2. An accessible entrance.
3. An interior accessible route to the altered area.
4. At least one accessible restroom for each sex or a single unisex restroom.
5. Accessible drinking fountains.
6. Accessible controls, operating mechanisms and hardware.
7. When possible, additional accessible elements such as storage and alarms.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is to add the suggested priority list from the Americans with Disabilities Act to the USBC as guidance for spending up to 20% of the cost of an alteration to a primary function area to upgrade the path of travel to the primary function area.

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Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: 2011 HJR 648 Workgroup Representing: _____

Proposal Information

Code(s) and Section(s): USBC, Virginia Construction Code Sections 108.1 and 3411.9.5

Proposed Change (including all relevant section numbers, if multiple sections):

Add new Item #5 to Section 108.1 and add new Section 3411.9.5 to read as follows:

5. Restriping, resurfacing or reconfiguring a parking lot which would be required to provide accessible parking spaces if newly constructed.

3411.9.5 Accessible parking spaces. When existing parking lots are restriped, resurfaced or reconfigured, accessible parking spaces shall be provided as required for newly constructed parking lots.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is to modify the USBC to be consistent with the U.S. Department of Justice's legal brief that restriping of parking lots is an alteration under the Americans with Disabilities Act (ADA) and must comply with the ADA's alteration rules. The proposal also adds a requirement for permits to be obtained when restriping, reconfiguration or resurfacing of a parking lot occurs to assure compliance. The code change would not require a building official to actively inform owners to restripe parking lots and would only apply when restriping, resurfacing or reconfiguration of a parking lot is untaken at the option of an owner. When restriping, resurfacing or reconfiguration occurs, if meeting the current requirements for accessible parking spaces is technically infeasible, as with other types of alterations, the rules for new construction do not apply. This requirement would not affect dirt, gravel or grass parking lots. It could require an existing lot to add accessible spaces, signage, van spaces or correct dimensional mistakes.

Submittal Information

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

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Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: 2011 HJR 648 Workgroup Representing: _____

Mailing Address: _____

Email Address: _____ Telephone Number: _____

Proposal Information

Code(s) and Section(s): USBC, Virginia Construction Code Table 1106.1

Proposed Change (including all relevant section numbers, if multiple sections):

Modify table as shown:

TABLE 1106.1
ACCESSIBLE PARKING SPACES

TOTAL PARKING SPACES PROVIDED	REQUIRED MINIMUM NUMBER OF ACCESSIBLE SPACES
1 to 25	1
26 to 50	2 3
51 to 75	3 4
76 to 100	4 5
101 to 150	5 6
151 to 200	6 7
201 to 300	7 8
301 to 400	8 10
401 to 500	9 12
501 to 1000	2 3% of total
1,001 and over	20 30, plus one two for each 100, or fraction thereof, over 1,000

Supporting Statement (including intent, need, and impact of the proposal):

This code change increases overall accessible parking spaces in all occupancies compared to the specific occupancies in Sections 1106.2 through 1106.4. There is attached some data on the growing elderly and aging of our citizenry. This code change could also be considered in addition to two other proposals from the HJR 648 workgroup for accessible parking, especially the proposal for increased parking spaces for doctor and dentist offices and eating establishments. It has been more than 20 years since the table in the code has been in existence without change.

Submittal Information

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: 2011 HJR 648 Workgroup Representing: _____

Email Address: _____ Telephone Number: _____

Proposal Information

Code(s) and Section(s): USBC, Virginia Construction Code Section 1106.3

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section 1106.3 to read as follows:

1106.3 Hospital Medical outpatient facilities, physician and dentist offices and buildings used as restaurants, cafeterias or similar dining facilities. At least 10 percent, but not less than one, of care recipient and visitor parking spaces provided to serve hospital medical outpatient facilities, physician and dentist offices shall be accessible and at least 5 percent, but not less than one, of parking spaces provided to serve restaurants, cafeterias or similar dining facilities shall be accessible.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal would require slightly more accessible spaces at newly constructed physician and dentist offices and at restaurants due to the latest studies of the numbers of persons with disabilities using such facilities. Virginia specific demographic data is attached. The term "hospital outpatient facilities" in the current code is changed to "medical outpatient facilities" to cover those facilities that are not on a hospital campus or even operated by a hospital.

Submittal Information

Date Submitted: _____

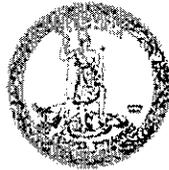
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Robert F. McDonnell
Governor

James S. Cheng
Secretary of
Commerce and Trade

COMMONWEALTH of VIRGINIA

William C. Shelton
Director

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

To: DHCD Workgroup 4 2012 USBC IPC, IMC, IFGC and NEC participants
From: Emory Rodgers, Deputy Director, Division of Building and Fire Regulation
Date: June 6, 2012
Subject: Summary of WG 4 meeting - May 30, 2012

Summary:

- Thanks to Dwayne Roadcap, Kemper Loyd and Susan Douglas with VDH for providing notes on VDH issues.
- Staff went over the 2012 regulatory schedule and DHCD Workgroup meetings for 2012. Key dates are September 24th for the 1st of two public hearings scheduled; the proposed regulations tentative approval is expected in April or May of 2013; 1st BHCD's Codes and Standards Committee meeting in late fall of 2012; 2012 code changes submittal deadline of July, 2013 with stakeholders urged to have code changes in by February of 2013 for consideration and inclusion into the 2012 proposed regulations. Consensus is that there is majority support by the stakeholders. The BHCD's CSC can and has on specific issues moved consensus code changes into the non-consensus block. For the past 12 years, about 85% of the submitted code changes have been consensus. That enables the BHCD to spend more time on non-consensus code changes.
- Staff went through the 2009 USBC baseline 2012 USBC reviewing all the current technical amendments for the IPC, IMC, IFGC and the NEC. Stakeholders were requested to review for retention, amendment or deletion. For example, there will be code changes for rainwater harvesting, gray water and reclaimed water that deletes the current technical amendments; for arc-faults; and, whether any changes are necessary for smoking lounges.
- 2012 USBC/2011 NEC: The Virginia Chapter – IAEI will submit code changes to delete 2009 USBC amendments for arc-faults and sheathing cable for the IRC electrical chapter. The NFPA and NEMA attendees support arc-faults being on all circuits serving habitable rooms. An attendee representing the Virginia IAFF, and also an electrical contractor, voiced opposition. Input is needed from VBCOA, HBAV and electrical contractors. This will be on WG 2 agenda for August 23rd.
- I-2 emergency generators discussed and it was determined that there is no need for code change on testing as current NEC has requirements. This item will be taken off this group's list of issues.

- I-2 emergency generator fuel supply. The group discussed code change that staff has heard was approved at ICC for 96 hours supply requirement. Unless code change is submitted, this item will be taken off this group's list of issues.
- Staff requested Virginia Chapter – IAEI representative to provide the 5-10 major 2011 NEC changes with cost estimates for the BHCD's CSC review. Need by end of September, 2012. Please submit these items to Janice Firestone.
- 2012 USBC/2012 IPC: Staff requested VPMIA to provide the 10 major changes with cost estimates by end of September, 2012. Please submit these items to Janice Firestone.
- 2012 IPC discussed hot water dispenser. Covered by IPC 501.6. This item will be taken off this group's list of issues unless code change submitted.
- Discussed need for any changes for cross-connection and grease interceptors. VPMIA will submit code changes from the 2015 IPC on sizing of grease interceptors. This item will be on WG 2 agenda for August 23rd. Code change is needed by end of July, 2012.
- Discussed DPOR's policy on water wells and who can do work for pumps. This item will be taken off this group's list of issues as DPOR has rescinded policy.
- Discussed VDH I-2 emergency wells for non-potable uses. This item will be taken off this group's list of issues as IPC covers now. If want to use as potable uses, then code change would be necessary. Clarified that two services that can come from same water supply are needed.
- Discussed VDH proposed regulations to change annual lawn sprinkler cross-connection to 2-3 years. Retain on list as IPC/USBC VMC also now requires annual inspection.
- Discussed incinerator toilets. IPC has requirements and standards/listing. There is a question as to whether VDH or local sewer authorities would still require connection to the septic or public sewer system. DHCD/VDH may need to establish MOA. Retain on list for DHCD/VDH MOA discussions.
- Discussed solar panels and need for guards and review 2015 code changes. For now this item will be taken off this group's list of issues unless code changes submitted.
- Discussed bathroom fixtures requirements for marinas. VDH has regulations and proposed regulations. IPC covers installation, but currently has no scoping. The 2015 IBC will have accessibility requirements for marinas. One attendee expressed support for VDH doing the scoping, but was also concerned over the scoping being based on boat slips. Clearly, the bathrooms and fixtures are USBC matters and whether boat slips is the right scoping can be discussed. The IPC fixture table will be forwarded to the subgroup members for the purpose of inserting scope for marinas as USBC IPC code change along with the proposed VDH marinas regulations. This item will be on WG 2 agenda for August 23rd.
- Discussed VDH proposed pool requirements and new ICC pool code. Sub-group formed with Dwayne Roadcap or others, Kris Bridges, Ken Payne and we will need a representative from VPMIA. Cindy Davis and Vernon Hodge will be DHCD facilitators providing space and logistics. Need code changes that define scope for USBC, permit exemptions, placement in the USBC, such as expanded IBC 3109 and IPC sections or an appendix (preferred being in code-ER) and then coordination with VDH so that construction requirements are in the USBC not the VDH regulations. Might take two cycles to do coordination with VDH regulations. Further discussion will be needed as to whether scope is to be at 18 inches or 24 inches, will include all spas and wading pools. Further discussion will be needed as to whether scope is enforceable and not overly stringent. Need to coordinate with VADR on water parks. The subgroup will review proposed pool requirements from VHD. Vernon will arrange a conference call for sometime after July 4, 2012.

- Discussed use of porta potties for events that exceed IPC fixture requirements. Example was high school stadium with overflow crowd. Ken Payne may submit a code change. Right now handled by building officials as modification request. This item will be on the August 23rd WG2 agenda.
- VPMIA, DPOR, VDH and other interested parties should review the Related Laws Package for tables on when contractor's and RDP's are necessary. Janice will send copy of RL package to email list and attendees.
- Discussed rainwater, gray water and reclaimed water code changes, current regulations and IGCC. 2015 IPC P 11 was the major code change discussed and can be the basis for a 2012 USBC code change or set of code changes. The IGCC cannot be adopted as a stand-alone code by the BHCD; VPMIA has submitted code changes to move requirements and standards into the USBC/IPC. There will need to be coordination with VDH rainwater guidelines and DEQ reclaim water regulations. DCR may need to be involved as well. The 2009 USBC technical amendments will be deleted. The code change is for non-portable use. Any stakeholders wanting to have rainwater used for potable uses would need to submit code changes. The format and scope issues such as "approved authority" that is common in the I codes can be resolved to fit into the USBC for inspections, testing and other administrative provisions. The technical provisions would be broken down into rainwater, gray water and reclaimed water requirements where these systems are installed. One attendee didn't support regulations for rainwater while most attendees generally support the direction and having separate sections for each type of water conservation category. A sub-group will be formed: Guy Tomberlin, Valerie Rourke, Dwayne Roadcap, Susan Douglas, Kris Bridges, Jay Schlothauer (name was recommended) or other VBCOA member, Shawn Strausbaugh and we will ask Leslie Middleton with the Rivanna River Basin Commission and Alyson Sappington with the Virginia Association of Soil and Water Conservation Districts to join the group. Cindy Davis will facilitate with Vernon. Cindy will try to do a meeting in July or a conference call. This will be on the August 23rd WG 2 meeting agenda and again in November to finalize. The code changes submitted by Guy Tomberlin were attached to the meeting agenda packet which is on our website.
- USBC/IMC review smoking lounges VDH and VPMIA. Any revisions necessary? Should MOA text be inserted into the technical amendments? Some thought no because currently working well. Maybe DHCD and VDH need to review text of MOA? Leave on list of issues for now.
- USBC/IMC Carbon Monoxide issue. The 2012 IBC has the exceptions for location. Kenny Payne will submit a proposal to delete the state amendments so we can use the 2012. This item will be on the August 23rd WG2 agenda.
- USBC/IMC VBCOA/VPMIA to submit code change that if listing says a door isn't required, then one can be omitted. This item will be on the August 23rd WG2 agenda.
- USBC/IMC discussed ducts and sprinklers beyond 75 feet. Take this item will be taken off this group's list of issues.
- USBC/IMC discussed smoke damper code changes for 2015. Take this item will be taken off this group's list of issues unless code changes are submitted.
- USBC/IMC take this item will be taken off this group's list of issues for Section 403, 412, 507, 621 and standard.
- USBC/IMC discussed continuing application of Type 1 hoods; issuance of NOV's by fire inspectors under the SFPC; role and duty of BO/USBC in existing buildings from B, M, churches, etc. Is there a need for a code changes for USBC/IMC and SFPC? Ken Payne to submit one. Technical Review Board decision is attached. The group discussed what

"commercial purposes" means. 2015 ICC/IMC did pass for I-2 that for domestic stoves can use Type 2 hood. Are there other criteria to utilize such as size of commercial or domestic stoves; where located; times utilized; who is being served; and, legislation being introduced exempting type 1 hoods altogether in some occupancies?

- IMC - Staff requested VPMIA to provide the 10 major changes with cost estimates for August 23rd WG 2 meeting. Please submit these items to Janice Firestone.
- USBC/IFGC - CSST - this item will be taken off this group's list of issues.
- USBC/IFGC - purging of industrial gas lines - this item will be taken off this group's list of issues.

CHAPTER 412
REGULATIONS FOR LICENSURE OF ABORTION FACILITIES

Part VII
Design and Construction

12VAC5-412-380. Local and state codes and standards.

Abortion facilities shall comply with state and local codes, zoning and building ordinances, and the Uniform Statewide Building Code. In addition, abortion facilities shall comply with Part 1 and sections 3.1-1 through 3.1-8 and section 3.7 of Part 3 of the 2010 Guidelines for Design and Construction of Health Care Facilities of the Facilities Guidelines Institute, which shall take precedence over the Uniform Statewide Building Code pursuant to Virginia Code § 32.1-127.001.

Entities operating as of the effective date of these regulations as identified by the department through submission of Reports of Induced Termination of Pregnancy pursuant to 12VAC5-550-120 or other means and that are now subject to licensure may be licensed in their current buildings if such entities submit a plan with the application for licensure that will bring them into full compliance with this provision within two years from the date of licensure.

Memorandum of Agreement Between
The Virginia Department of Health The
Virginia Department of Housing and Community Development and
The Virginia Department of Agriculture Consumer Services
October 2009

Statutory Authority

This agreement is established with reference to the Virginia Indoor Clean Air Act (Title 15.2 §2820-2833), Virginia Food Regulations (12 VAC 5-421), Virginia Retail Food Establishment Regulations (2 VAC 5-585) and the Virginia Uniform Statewide Building Code (USBC), (13 VAC 5-63) regarding the policies and procedures pursuant to these Acts and regulations.

Purpose

With the Governor's signing of House Bill 1703, smoking in restaurants will be prohibited effective December 1, 2009, with limited exceptions. One of these exceptions includes the construction of an area inside a restaurant where smoking may occur provided it is:

"...(i) structurally separated from the portion of the restaurant in which smoking is prohibited and to which ingress and egress is through a door and (ii) is separately vented to prevent the recirculation of air from such area to the area of the restaurant where smoking is prohibited. At least one public entrance to the restaurant shall be into an area of the restaurant where smoking is prohibited."

Statutory authority has been granted to the Virginia Department of Health to inspect for compliance with this section. The Virginia Department of Health (VDH), the Virginia Department of Housing and Community Development (VDHCD), and the Virginia Department of Agriculture Consumer Services (VDACS) have regulatory authority to review the construction and renovation of restaurants. Additionally, VDACS and VDH share responsibility for inspecting certain types of restaurants. To eliminate as much overlap, conflict, or duplication as possible, an agreement between VDH, VDHCD, and VDACS is established by this Memorandum of Agreement.

In order to assure this agreement can be implemented, VDH, VDHCD, and VDACS recognize that there are major areas of regulatory responsibility with respect to the review of construction and renovation in restaurants. These are identified in Part I of this agreement and relate to the responsibilities that VDH, VDHCD, and VDACS each have with respect to this new law. Additionally, both VDH and VDACS share responsibility for inspecting restaurants in Virginia. Gas stations and convenience stores with fifteen or fewer seats are inspected by

VDACS whereas all other restaurants are inspected by VDH. Responsibility for compliance with this law at all restaurants across the state is described in Part II of this agreement. The following agreement outlines the responsibilities assigned to each agency in accordance with these areas.

I. Restaurant Construction and Renovation

a. Permits and Plan Review Services – Local Building Official

When a permit applicant for a new restaurant submits plans, which include a separate area for smoking; or plans for the renovation of an existing restaurant that include a separate area for smoking, to the local building official for review and approval, the building official will evaluate the restaurant design for:

- i. Compliance with the USBC-Virginia Construction Code for separately vented requirements applicable to smoking areas; for separation of the smoking area from the non-smoking area with a structural component of materials constructed from the floor to the ceiling; for means of egress, accessibility and occupant load; and, all other applicable USBC requirements to prevent recirculation of air and the migration of smoke. The ingress/egress door to the smoking area is required to be capable of remaining in the closed position and is not required to be self-closing.
- ii. Upon completion of the review, the building official will issue an approved building permit to the permit applicant that verifies the area designated a smoking area is in compliance with all applicable provisions of the USBC.

b. Permits and Plan Review Services – Local Health Department

When a permit applicant for a new restaurant submits plans, which include a separate area for smoking; or plans for the renovation of an existing restaurant that include a separate area for smoking, to the Local Health Department (LHD) as required by 12 VAC 5-421-3600, the LHD, upon receipt of written verification from the local building official that the area designated as a smoking area is in compliance with the USBC, will evaluate the restaurant plans for:

- i. Ingress and egress into the area through a door that remains closed when not being actively used for ingress or egress.

- ii. At least one public entrance to the restaurant in the area of the restaurant where smoking is prohibited.
- iii. Posted signs stating "No Smoking" or signs containing the international "No Smoking" symbol, consisting of a pictorial representation of a burning cigarette enclosed in a red circle with a bar across it clearly and conspicuously in the restaurant where smoking is prohibited.

c. Plan Review Services—VDACS

When a new restaurant gas station or convenience store with fifteen or fewer seats submits plans, which include a separate area for smoking: or plans for the renovation of an existing restaurant gas station or convenience store with fifteen or fewer seats that include a separate area for smoking, to VDACS as required by 2 VAC 5-585-3600, VDACS, upon receipt of written verification from the local building official that the area designated as a smoking area is in compliance with the USBC, will evaluate the restaurant gas station or convenience store plans with fifteen or fewer seats for:

- i. Ingress and egress into the area through a door that remains closed when not being actively used for ingress or egress.
- ii. At least one public entrance to the restaurant in the area of the restaurant where smoking is prohibited.
- iii. Posted signs stating "No Smoking" or signs containing the international "No Smoking" symbol, consisting of a pictorial representation of a burning cigarette enclosed in a red circle with a bar across it clearly and conspicuously in the restaurant where smoking is prohibited.

II. Restaurant Inspections

Whereas VDACS has regulatory authority to inspect restaurant gas stations and convenience stores with fifteen or fewer seats and VDH has regulatory authority to inspect all other restaurants in Virginia, both agencies will inspect for compliance with this law as follows:

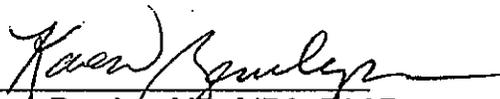
- i. Verify that the proprietor posts signs stating "No Smoking" or containing the international "No Smoking" symbol, consisting of a pictorial representation of a burning cigarette enclosed in a red circle with a bar across it, clearly and conspicuously in every restaurant where smoking is prohibited
- ii. Verify that the proprietor has removed all ashtrays and other smoking paraphernalia from any area in the restaurant smoking is prohibited

If alleged non-compliance is observed during restaurant inspections conducted by VDACS at gas stations or convenience stores with fifteen or fewer seats, VDACS will notify the local health department of their observations after informing the proprietor of the standards listed above.

III. Agreement and Consent

This agreement shall be effective upon the signature of the State Commissioner of Health, the Director of Housing and Community Development, and the State Commissioner of Agriculture, and shall remain in effect until modified or terminated by mutual agreement of the agency heads. Any agency may terminate their participation in this agreement by notifying the other of their intent thirty-days prior to such termination.

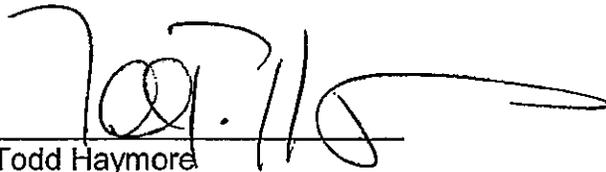
This memorandum of agreement is for the purpose of facilitating cooperation between three agencies of the Commonwealth. It does not intend to create, nor does it create any rights in any fourth party.



Karen Remley, MD, MBA, BAAP
Commissioner
Virginia Department of Health



Bill Shelton
Director
Virginia Department of Housing
And Community Development



Todd Haymore
Commissioner
Virginia Department of Agriculture

VIRGINIA:

BEFORE THE
STATE BUILDING CODE TECHNICAL REVIEW BOARD

IN RE: Appeal of Ephesus Baptist Church
Appeal No. 10-1

Hearing Date: June 18, 2010

DECISION OF THE REVIEW BOARD

I. PROCEDURAL BACKGROUND

The State Building Code Technical Review Board (the "Review Board") is a Governor-appointed board established to rule on disputes arising from application of the Virginia Uniform Statewide Building Code (the "USBC") and other regulations of the Department of Housing and Community Development. See §§ 36-108 and 36-114 of the Code of Virginia. Enforcement of the USBC in other than state-owned buildings is by local city, county or town building departments. See § 36-105 of the Code of Virginia. An appeal under the USBC is first heard by a local board of building code appeals and then may be further appealed to the Review Board. See § 36-105 of the Code of Virginia. The Review Board's proceedings are governed by the Virginia Administrative Process Act. See § 36-114 of the Code of Virginia.

II. CASE HISTORY

Representatives of Ephesus Baptist Church ("Ephesus") appeal a determination by the Mecklenburg County USBC official (the "building official") concerning the construction of a family life center on the church property.

Ephesus is located at 1642 Smith Cross Road, in the town of South Hill, in Mecklenburg County. The property has an existing large single story church building.

In 2009, Ephesus presented plans to the building official for the construction of a new family life center adjacent to the existing church building. The new building was approximately 11,656 square feet in floor area and was to be connected to the existing church building by a vestibule area.

The plans were approved by the building official and a building permit was issued; however, the plans included the use of a sprinkler system as part of the construction of the building for fire protection purposes.

At some point during construction of the building, the issue of whether a sprinkler system was necessary was raised by Ephesus based on a USBC provision which states that a sprinkler system is required in assembly buildings having an occupant load of 300 or more persons, except in churches, where only a square footage requirement is considered rather than an occupant load

requirement. Ephesus was over the occupant load threshold for the necessity of a sprinkler system, unless the building was considered to be a church.

In October of 2009, the building official informed Ephesus in writing that a sprinkler system was required.

Ephesus appealed that decision to the Mecklenburg County Building Code Appeals Board ("County appeals board"), which ruled to uphold the building official's decision.

Ephesus then further appealed to the Review Board.

III. FINDINGS OF THE REVIEW BOARD

The USBC requirement in question is set out below:

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).
2. In Group A-3 occupancies other than churches, the fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than the level of exit discharge.

Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.

Aug. 20, 2010

Date Entered

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty (30) days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a Notice of Appeal with Vernon W. Hodge, Secretary of the Review Board. In the event that this decision is served to you by mail, three (3) days are added to that period.

*Note: The original signed final order is available from Review Board staff.

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PART I.
PROGRAM ADMINISTRATION.

9 VAC 25-91-10. Definitions.

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

“Aboveground storage tank” or “AST” means any one or combination of tanks, including pipes, used to contain an accumulation of oil at atmospheric pressure, and the volume of which, including the volume of the pipes, is more than 90% above the surface of the ground. This term does not include line pipe and breakout tanks of an interstate pipeline regulated under the federal. Accountable Pipeline Safety and Partnership Act of 1996 (49 USC § 60101 et seq.).

“Board” means the State Water Control Board.

“Containment and cleanup” means abatement, containment, removal and disposal of oil and, to the extent possible, the restoration of the environment to its existing state prior to an oil discharge.

“Corrosion professional” means a person who by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person shall be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

“Department” means the Department of Environmental Quality (DEQ).

“Discharge” means any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

“Elevated tank” means a tank in AST which is not in contact with the ground and which is raised above the surface of the ground

“Facility” means any development or installation within the Commonwealth that deals in, stores or handles oil and includes a pipeline.

“Flow-through process tank” means (as defined in 40 CFR Part 280) a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

“Local building official” means the person authorized by the Commonwealth to enforce the provisions of the Uniform Statewide Building Code (USBC).

1 “Tank” means a device designed to contain an accumulation of oil and constructed of
2 nonearthen materials, such as concrete, steel, or plastic, that provides structural support. This
3 term does not include flow-through process tanks as defined in 40 CFR Part 280.
4

5 “Tank vessel” means any vessel used in the transportation of oil as bulk cargo.
6

7 “Upgrade” means an alteration of the performance, design, equipment or appurtenances of an
8 AST or facility to meet a higher, new, or current standard.

9 “Vaulted tank” means any tank situated upon or above the surface of the floor in an
10 underground area (such as an underground room, basement, cellar, mine-working, drift, shaft,
11 tunnel or vault) providing enough space for physical inspection of the exterior of the tank.
12

13 “Vehicle” means any motor vehicle, rolling stock, or other artificial contrivance for
14 transport whether self-propelled or otherwise, except vessels.
15

16 “Vessel” includes every description of watercraft or other contrivance used as a means of
17 transporting on water, whether self-propelled or otherwise, and shall include barges and
18 tugs.
19
20

21 **9 VAC 25-91-20. Applicability.**

22
23 A. The operator shall comply with all applicable requirements pursuant to this chapter. The
24 operator as defined in this chapter, can be more than one person and each operator shares joint
25 responsibility for compliance.
26

27 B. The requirements of this chapter ~~may vary in their applicability to any given AST or facility~~
28 ~~depending on the part in which the requirement appears. The applicability of parts II, III, IV, and~~
29 ~~V are differentiated apply as follows:~~
30

31 1. The provisions of Part II (9 VAC 25-91-100 *et seq.*, Registration, Notification and
32 Closure Requirements) of this chapter apply to: (i) an individual AST located within the
33 Commonwealth of Virginia with an aboveground storage capacity greater than 660
34 gallons of oil, unless otherwise specified within this chapter; and (ii) all facilities in the
35 Commonwealth of Virginia with an aggregate aboveground storage capacity greater than
36 1,320 gallons of oil, unless otherwise specified within this chapter. Storage of oil that is
37 excluded from regulation in 9VAC25-91-30 A [mp2] is not included when calculating ASTs
38 that are excluded under 9 VAC 25-91-30 are not included in the the aggregate
39 aboveground storage capacity.
40

41 2. The provisions of Part III (9 VAC 25-91-130 *et seq.*, Pollution Prevention
42 Requirements) of this chapter apply to: (i) an individual AST located within the
43 Commonwealth of Virginia with an aboveground storage capacity of 25,000 gallons or
44 greater of oil, unless otherwise specified within this chapter; and (ii) all facilities in the
45 Commonwealth of Virginia with an aggregate aboveground storage capacity of 25,000
46 gallons or greater of oil, unless otherwise specified within this chapter. Storage of oil that
47 is excluded from regulation in 9VAC25-91-30 A [mp3] is not included when calculating
48 ASTs that are excluded under 9 VAC 25-91-30 are not included in the the aggregate
49 aboveground storage capacity.
50
51

1 3. The provisions of part IV (9 VAC 25-91-170, Oil Discharge Contingency Plan
2 (ODCP) requirements) of this chapter apply to: (i) an individual AST located within the
3 Commonwealth of Virginia with an aboveground storage capacity of 25,000 gallons or
4 greater of oil, unless otherwise specified within this chapter; and (ii) all facilities in the
5 Commonwealth of Virginia with an aggregate aboveground storage capacity of 25,000
6 gallons or greater of oil, unless otherwise specified within this chapter. Storage of oil that
7 is excluded from regulation in 9VAC25-91-30 ~~A_[imp4]~~ is not included when calculating
8 ASTs that are excluded under 9 VAC 25-91-30 are not included in the the aggregate
9 aboveground storage capacity.

10
11
12 4. The provisions of Part V (9 VAC 25-91-180 *et seq.*, Groundwater Characterization
13 Study (GCS) and GCS Monitoring Well Requirements) of this chapter apply to: (i) an
14 individual AST located within the Commonwealth of Virginia with an aboveground
15 storage capacity of one million gallons or greater of oil, unless otherwise specified within
16 this chapter; and (ii) all facilities in the Commonwealth of Virginia with an aggregate
17 aboveground storage capacity of one million gallons or greater of oil, unless otherwise
18 specified within this chapter. Storage of oil that is excluded from regulation in 9VAC25-
19 91-30 ~~A_[imp5]~~ is not included when calculating ASTs that are excluded under 9 VAC 25-
20 91-30 are not included in the aggregate aboveground storage capacity.

21
22 **9 VAC 25-91-30. Exclusions.**

23
24 A. The requirements of this chapter do not apply to:

- 25
26 1. Vessels;
27
28 2. Licensed motor vehicles, unless used solely for the storage of oil;
29
30 3. An AST with a storage capacity of 660 gallons or less of oil;
31
32 4. An AST containing petroleum, including crude oil or any fraction thereof, which is
33 liquid at standard temperature and pressure (60[°]F ~~E_[imp6]~~F at 14.7 pounds per square inch
34 absolute) subject to and specifically listed or designated as a hazardous substance under
35 subparagraphs (A) through (F) of § 101(14) of the federal Comprehensive Environmental
36 Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601 *et seq.*);
37
38 5. A wastewater treatment tank system that is part of a wastewater treatment facility
39 regulated under § 402 or § 307(b) of the federal Clean Water Act (33 USC § 1251 *et*
40 *seq.*);
41
42 6. An AST that is regulated by the Department of Mines, Minerals and Energy under
43 Chapter 22.1 (§ 45.1-361.1 *et seq.*) of Title 45.1 of the Code of Virginia;
44
45 7. An AST used for the storage of products that are regulated pursuant to the federal
46 Food, Drug, and Cosmetic Act (21 USC § 301 *et seq.*);
47
48 8. An AST that is used to store hazardous wastes listed or identified under Subtitle C of
49 the Resource Conservation and Recovery Act (RCRA) (Solid Waste Disposal Act) (42
50 USC § 6901 *et seq.*), or a mixture of such hazardous wastes and other regulated
51 substances;

9. An AST that is used to store propane gas, butane gas or other liquid petroleum gases;
10. An AST used to store nonpetroleum hydrocarbon-based animal and vegetable oils;
11. A liquid trap or associated gathering lines directly related to oil or gas production, or gathering operations;
12. A surface impoundment, pit, pond, or lagoon;
13. A stormwater or wastewater collection system;
14. Equipment or machinery that contains oil for operational purposes, including but not limited to lubricating systems, hydraulic systems, and heat transfer systems;
15. An AST that forms an integral part (cannot be readily detached or removed) of the equipment or machinery and the contents of the AST are solely used by the attached equipment or machinery (e.g., fuel tank welded into the frame of an emergency generator).^[mp7]
- ~~16-15.~~ An AST used to contain oil for less than 120 days when: (i) used in connection with activities related to the containment and cleanup of oil; (ii) used by a federal, state or local entity in responding to an emergency including response related training or drills; or (iii) used temporarily on-site to replace permanent capacity storage;
- ~~17-16.~~ Oil-filled electrical equipment, including, but not limited to, transformers, circuit breakers or capacitors;
- ~~18-17.~~ A flow-through process tank;
- ~~18-19.~~ Oily water separators;
- ~~19-20.~~ An AST containing dredge spoils;
- ~~20-21.~~ An AST located on a farm or residence used for storing motor fuel for noncommercial purposes with an aggregate storage capacity of 1,100 gallons or less; or
- ~~21-22.~~ Pipes or piping beyond the first valve from the AST that connects an AST with production process tanks or production process equipment.

B. In addition to the ~~complete~~ exclusions listed in subsection A of this section, the following are partially excluded from this chapter in that they need not comply with the requirements contained in Part III (9 VAC 25-91-130 *et seq.*, Pollution Prevention Requirements) of this chapter:

1. An AST with a capacity of 5,000 gallons or less used for storing heating oil for consumptive use on the premises where stored;
2. An AST storing asphalt and asphalt compounds which are not liquid at standard conditions of temperature and pressure (60^{°E}^[mp8]F at 14.7 pounds per square inch absolute); and
3. Line pipe and breakout tanks of an interstate pipeline regulated under the federal Accountable Pipeline Safety and Partnership Act of 1996 (49 USC § 60101 *et seq.*).

1 registration required by this section every five years or whenever title to the facility or AST is
2 transferred (change of ownership), whichever occurs first.

3
4 G. A facility or AST installed after ~~the effective date of this chapter, June 24, 1998,~~
5 ~~[mp23]~~including an AST or facility operated by the federal government, shall not be registered
6 without either (i) a review by the department of the permits, inspections, and certification of use
7 required in accordance with the provisions of the Uniform Statewide Building Code, ~~the BOCA®~~
8 ~~National Building Code and NFPA Code~~ and obtained by the owner or a duly authorized
9 representative from the local code officials or their designee or (ii) an inspection by the
10 department. In the case of a regulated AST operated by the Commonwealth, the Department of
11 General Services shall function as the local code official in accordance with § 36-98.1 of the
12 Code of Virginia.

13
14
15 **9 VAC 25-91-110. Notifications.**

16
17 A. An owner or a duly authorized representative of the facility or AST shall notify the board
18 within 30 days after any AST:

- 19
20 1. Upgrade;
- 21
22 2. Major repair;
- 23
24 3. Replacement (i.e., relocating or repositioning of an existing AST); or
- 25
26 4. Change in service (i.e., change in operation, conditions of the stored product, specific
27 gravity, corrosivity, temperature or pressure that has occurred from the original that may
28 affect the tank's suitability for service).

29
30 B. Notifications do not require a fee.

31
32
33 **9 VAC 25-91-120. Aboveground storage tank closure.**

34
35 A. After ~~the effective date of this chapter, June 24, 1998,~~ ~~[mp24]~~ a facility or AST, including a
36 facility or AST operated by the federal government, shall not be permanently closed without being
37 registered ~~and the fee paid~~ ~~[mp25]~~ and either (i) having a review performed by the department of the
38 permits and inspections required in accordance with the provisions of the Uniform Statewide
39 Building Code, ~~the BOCA® National Building Code, and NFPA Code~~ obtained by the owner or a
40 duly authorized representative from the local code official or his designee or (ii) being inspected
41 by the department.

- 42
43 1. For inspections by the department (e.g., where a permit is not issued by the local code
44 official or his designee), at least 14 days notice to the department is required prior to the
45 commencement of closure operations. Notice shall be made by the owner or a duly
46 authorized representative.
- 47
48 2. In the case of a regulated AST operated by the Commonwealth, the Department of
49 General Services shall function as the local code official in accordance with § 36-98.1 of
50 the Code of Virginia.
- 51
52 3. If the closure is in response to containment and cleanup actions that necessitate AST

1 inventory variation, the operator shall notify the board and the local director or
2 coordinator of emergency services and shall conduct additional testing to
3 determine the cause of the inventory variation. The testing method, schedule, and
4 results of this additional testing shall be submitted to the board for review. For a
5 refinery, a significant variation of inventory shall be considered a loss in excess of
6 1.0% by weight of the difference between the refinery's input and output of oil.
7

8 c. Inventory records shall be kept of incoming and outgoing volumes of oil from
9 each tank. All tanks shall be gauged no less frequently than once every 14 days
10 and on each day of normal operation. ~~Physical measurements shall be reconciled~~
11 ~~to 60EP at 14.7 pounds per square inch absolute.~~ For a refinery, the operator shall
12 calculate the input and output of oil at the refinery on a daily basis. The operator
13 shall reconcile daily inventory records with the inventory measurements
14 conducted monthly.
15

16 2. Formal inspections.

17
18 a. Each AST shall undergo formal external and internal tank inspections. The
19 initial formal internal and external inspections for an ~~existing~~ AST existing on
20 June 24, 1998 shall have been ~~be~~ completed on or before June 30, 1998, unless
21 otherwise specified within this chapter.
22

23 (1) All newly installed ASTs shall have initial formal inspections within five
24 years after the date of installation.
25

26 (2) Operators of facilities existing on June 24, 1998 and exempted under § 62.1-
27 44.34:17 D of the Code of Virginia (i.e., exempted facilities not engaged in the
28 resale of oil) shall have completed the initial formal inspections on or before
29 June 24, 2003. ~~within five years of the effective date of this chapter.~~
30

31 (3) An AST with a storage capacity of less than 12,000 gallons shall not be
32 subject to the formal internal inspection unless the integrity of the AST is in
33 question and an inspection is deemed necessary by the board.
34

35 b. Inspections shall be conducted in accordance with the provisions of American
36 Petroleum Institute (API) Standard 653 standards or Steel Tank Institute (STI)
37 standard STI-SP001~~[mp30]~~ or procedure approved by the board. If construction practices
38 allow external access to the tank bottom, a formal external inspection utilizing accepted
39 methods of nondestructive testing or procedure approved by the board may be allowed
40 in lieu of the internal inspection. ~~An AST with a release prevention barrier or liner~~
41 ~~installed shall be internally inspected in accordance with the applicable provisions of~~
42 ~~API Standard 653 or API Recommended Practice 652, STI-SP001 or procedure~~~~[mp31]~~
43 ~~accepted by the board.~~~~[mp32]~~
44

45 c. An API Standard 653 inspection conducted~~[mp33]~~ between January 1, 1991, and ~~the~~
46 ~~effective date of this chapter~~ June 24, 1998.~~[mp34]~~ may be accepted by the board if the
47 operator provides supporting documentation to the board for review and approval.
48

49 d. All formal inspections and testing required by 9VAC91-130 A 2 and 9VAC91-
50 130 A 3 shall be conducted by a person certified to conduct the inspection or test.

1 This certification shall be accomplished in accordance with the provisions of API
2 Standard 653, STI-SP001 [mp35] or a procedure approved by the board. Proof of this
3 certification shall be maintained in the facility records. The results of all tests and
4 inspections required by 9VAC91-130 A 2 and 9VAC91-130 A 3 shall be maintained
5 at the facility or at a location approved by the board for the life of the tank, but for
6 no less than five years.

7
8
9 3. Formal reinspections.

10
11 a. Each AST shall undergo an external reinspection every five years in accordance
12 with the provisions of API Standard 653, STI-SP001, or other procedure accepted by
13 the board [mp36] after the initial formal external inspection has been conducted.

14
15 b. Each AST with a storage capacity of 12,000 gallons of oil or greater shall
16 undergo an internal reinspection in accordance with the provisions of API Standard
17 653, STI-SP001 or other procedure accepted by the board [mp37] every 10 years after
18 the initial formal internal inspection has been conducted.

19
20 (1) The board may require the internal reinspection sooner than 10 years if
21 there is an indication that the corrosion rate established by the initial
22 internal inspection or a subsequent reinspection has increased.

23
24 (2) The internal reinspection period may be extended beyond 10 years if the
25 operator can demonstrate to the board that an extension of the reinspection
26 period is warranted. The operator shall provide supporting documentation to
27 the board for review and approval at least six months prior to the date the
28 reinspection is due.

29
30 c. An AST with a storage capacity of less than 12,000 gallons shall not be subject to
31 the formal internal reinspection unless the integrity of the AST is in question and an
32 inspection is deemed necessary by the board.

33
34 4. Secondary containment.

35
36 ~~Each secondary containment dike or berm shall be maintained and evaluated or~~
37 ~~certified with respect to its compliance with the applicable requirements of 40 CFR~~
38 ~~Part 112 (1997), NFPA 30, and 29 CFR 1910.106. The operator shall have this~~
39 ~~evaluation or certification performed by a professional engineer or person~~
40 ~~approved by the board on or before June 30, 1998, and every 10 years thereafter,~~
41 ~~unless otherwise exempted.~~

42
43 ~~a. Operators of facilities exempted under § 62.1-44.34:17 D of the Code of~~
44 ~~Virginia (i.e., exempted facilities not engaged in the resale of oil) shall have~~
45 ~~this evaluation completed within five years after the effective date of this~~
46 ~~chapter and every 10 years thereafter.~~

47
48 ~~b. Operators of a newly installed AST shall have this evaluation completed~~
49 ~~prior to being placed into service and every 10 years thereafter.~~

50
51 a. The operator shall have and maintain secondary containment or another method

1 approved by the ~~department board~~^[mp38] for each AST. ~~The containment structure~~
2 ~~must be capable of containing oil and shall be constructed in accordance with 40~~
3 ~~CFR Part 112 so that any discharge from the AST will not escape the containment~~
4 ~~before cleanup occurs.~~^[mp39] ~~The operator shall have each secondary containment or~~
5 ~~approved method evaluated and certified to be in compliance with the applicable~~
6 ~~requirements of 40 CFR Part 112, the Uniform Statewide Building Code and its~~
7 ~~referenced model codes and standards, and 29 CFR Part 1910.106. The operator~~
8 ~~of a facility existing on June 24, 1998 shall have had this evaluation or certification~~
9 ~~performed by a professional engineer or person approved by the board on or before~~
10 ~~June 30, 1998, and every 10 years thereafter, unless otherwise exempted.~~

11
12 b. ~~If the secondary containment cannot be certified to be in compliance with the~~
13 ~~applicable requirements of 40 CFR Part 112, Uniform Statewide Building Code~~
14 ~~and its referenced model codes and standards, and 29 CFR Part 1910.106., the~~
15 ~~operator must upgrade, repair, or replace the secondary containment to meet the~~
16 ~~applicable requirements listed in paragraph a of this subsection unless the board~~
17 ~~accepts the certification with qualifications.~~^[mp40]

18
19 c. ~~The operator of a facility shall have the evaluation and certification performed on~~
20 ~~or before June 30, 1998 and every 10 years thereafter by a professional engineer~~
21 ~~(PE) licensed in the Commonwealth of Virginia or other state having reciprocity~~
22 ~~with Virginia or by a person approved by the ~~department board~~^[mp41], unless~~
23 ~~otherwise exempted.~~^[mp42]

24
25 d. ~~The Professional Engineer shall not certify the secondary containment until all of~~
26 ~~the applicable requirements of 40 CFR Part 112, Uniform Statewide Building Code~~
27 ~~and its referenced model codes and standards, and 29 CFR Part 1910.106., have~~
28 ~~been met. In the event the professional engineer certifies the secondary~~
29 ~~containment with qualifications, such qualifications will be subject to review and~~
30 ~~approval by the board. If the certification contains qualifications that may impact~~
31 ~~the ability of the secondary containment to contain a discharge of oil as required~~
32 ~~by subsection (a), the deficiencies must be corrected and the secondary~~
33 ~~containment must be reevaluated and recertified by a professional engineer.~~^[mp43]

34
35 ~~e. The department will not accept a certification that is issued with qualifications. In~~
36 ~~such circumstances the deficiencies must be corrected, the secondary containment~~
37 ~~must be reevaluated by the professional engineer, who then may issue the~~
38 ~~certification that the secondary containment meets the requirements~~^[mp44].

39
40 ~~fc~~^[mp45]. ~~At a minimum, the certification statement for the secondary containment must~~
41 ~~contain the following statement "Based on my evaluation, I hereby certify that each~~
42 ~~secondary containment structure for [insert the facility name and tank identification~~
43 ~~information] is in compliance with the applicable requirements of 40 CFR 112, the~~
44 ~~Uniform Statewide Building Code and its referenced model codes and standards, and~~
45 ~~29 CFR 1910.106."~~

1 ~~g. [mp46]. The certification must be signed and sealed by a Virginia professional~~
2 ~~engineer licensed in the Commonwealth of Virginia or other state having reciprocity,~~
3 ~~by a professional engineer with Virginia reciprocity, or by a person approved by the~~
4 ~~department board [mp47], [mp48]~~

5
6 ~~h. [mp49]. Operators of facilities existing on June 24, 1998 and exempted under §62.1-~~
7 ~~44.34:17 D of the Code of Virginia (i.e., exempted facilities not engaged in the resale~~
8 ~~of oil) shall have had this evaluation completed on or before June 24, 2003 and every~~
9 ~~10 years thereafter.~~

10
11 ~~i. [mp50]. Operators of a newly installed AST shall have this evaluation completed prior~~
12 ~~to being placed into service and every 10 years thereafter.~~

13
14
15 5. Safe fill and shutdown procedures.

16
17 a. Each operator shall institute and maintain records of safe fill, shutdown and
18 transfer procedures or equivalent measures established approved [mp51] by the board,
19 that will ensure that spills resulting from tank overfills or other product transfer
20 operations do not occur.

21
22 (1) All receipts of oil shall be authorized by the operator or facility personnel
23 trained by the operator who shall ensure the volume available in the tank is
24 greater than the volume of oil to be transferred to the tank before the transfer
25 operation commences. The operator shall ensure the transfer operation is
26 monitored continually, either by manual or automatic
27 means, until complete. The operator shall ensure that all tank fill valves not in
28 use are secured and that only the tank designated is receiving oil.

29
30 (2) If unattended during transfer operations, the AST shall be equipped with a
31 high level alarm or other appropriate mechanism approved by the board that
32 will immediately alert the operator to prevent an overfill event. Activation of
33 the high level alarm or other appropriate mechanism shall initiate an immediate
34 and controlled emergency shutdown of the transfer, either by manual or
35 automatic means. Each operator shall include this emergency shutdown
36 procedure in the facility records and shall ensure that all facility personnel
37 involved in the transfer operation are trained in this procedure. The alarm shall
38 consist of a visual and audible device capable
39 of alerting the operator, both by sight and hearing, to prevent an overfill
40 situation. If the operator is in a control station, this alarm shall cause a warning
41 light and audible signal in that station to activate. In addition, this system shall
42 alarm on failure, malfunction or power loss. This high level alarm shall be tested
43 prior to each receipt of oil. Records of testing shall be maintained at the
44 facility.

45
46 b. All oil transfer areas where filling connections are made with vehicles shall be
47 equipped with a spill containment system capable of containing and collecting
48 those spills and overfills. The containment system shall be designed to hold at least the
49 capacity as required by 40 CFR Part 112 (1997) [mp52] (e.g., the maximum capacity of

1 | any single compartment of a vehicle loaded or ~~unloaded in the transfer area at a loading~~
2 | ~~rack~~^(imp531)).

3 |
4 | c. If installed, an automatic shutdown system utilized during transfer of oil shall
5 | include the capability to direct the flow of oil to another tank capable of receiving the
6 | transferred oil or the capability to shut down the pumping or transfer system. This
7 | automatic shutdown system shall be tested prior to each receipt of oil and records of
8 | testing shall be maintained at the facility.

9 |
10 | d. All ASTs shall be equipped with a gauge that is readily visible and indicates the
11 | level of oil or quantity of oil in the tank. In addition, the storage capacity, product
12 | stored and tank identification number shall be clearly marked on the tank at the
13 | location of the gauge. These gauges shall be calibrated annually.

14 |
15 | 6. Cathodic protection of piping and pressure testing of piping.

16 |
17 | a. The requirement for cathodic protection of piping shall apply to buried piping only.
18 | Cathodic protection shall be installed and maintained in accordance with the following
19 | applicable publications: API 1632, NFPA 30, the Uniform Statewide Building Code and
20 | its referenced model codes and standards, NACE 0169, or NACE
21 | 0285. National Association of Corrosion Engineers (NACE)
22 | SP0285-2011. All piping above ground shall be protected from corrosion using
23 | methods and procedures referenced in the Uniform Statewide Building Code and its
24 | referenced model codes and standards NFPA 30, Chapter 2, Section 2-4.3 or a
25 | procedure approved by the board. Piping that passes through the wall of the
26 | containment berm or dike or under road crossings shall be protected from corrosion
27 | and damage using practices recommended in the publications listed in this subdivision.

28 |
29 | b. All piping shall be pressure tested as specified in this subsection or using an
30 | equivalent method or measure approved by the board at intervals not to exceed five
31 | years. The operator of ~~an existing facility or AST existing on June 24, 1998~~ shall have
32 | completed the initial test on or before June 30, 1998 except operators of existing
33 | facilities or ASTs for which compliance was exempted under § 62.1-44.34:17 D of the
34 | Code of Virginia (i.e., exempted facilities not engaged in the resale of oil). These
35 | ~~exempted operators shall have completed the initial test on or before June 24,~~
36 | ~~2003 within five years after the effective date of this chapter.~~ All newly installed or
37 | repaired piping shall be tested before being placed into service.

38 |
39 | (1) A pressure test may be a hydrostatic test at 150% maximum allowable
40 | working pressure (MAWP) or an inert gas test at 110% MAWP.

41 |
42 | (2) A test conducted and certified by an API authorized piping inspector
43 | to be in conformity with the API 570 Piping Inspection Code is deemed an
44 | equivalent method of testing approved by the board.

45 |
46 | (3) The board may consider on a case-by-case basis requests for approval of
47 | other equivalent methods or measures which conform to industry
48 | recommended practices, standards and codes. The operator shall submit a
49 | request for approval of a proposed equivalent method or measure to the board
50 | as per 9 VAC 25-91-160.

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- ____(2) Containment area free of excess standing water or oil.
- ____(3) Gate valves used for emptying containment areas secured.
- ____(4) Containment area/base of tank free of high grass, weeds, and debris.
- ____(5) Tank shell surface, including any peeling areas, welds, rivets/bolts, seams, and foundation, visually inspected for areas of rust and other deterioration.
- ____(6) Ground surface around tanks and containment structures and transfer areas checked for signs of leakage.
- ____(7) Leak detection equipment in satisfactory condition.
- ____(8) Separator or drainage tank in satisfactory condition.
- ____(9) Tank water bottom drawoffs not in use are secured.
- ____(10) Tank fill valves not in use are secured.
- ____(11) Valves inspected for signs of leakage or deterioration.
- ____(12) Inlet and outlet piping and flanges inspected for leakage.
- ____(13) All tank gauges have been inspected and are operational.

Signature of Inspector

Date

Time

d. The operator shall promptly remedy unsatisfactory facility and equipment conditions observed in the daily and weekly inspections. The operator shall make repairs, alterations and retrofits in accordance with API Standard 653, STI-SP001, ^[mp55] industry standards, or methods approved by the ~~department~~_[mp56] board.

8. Training of individuals.

To ensure proper training of individuals conducting inspections required by subdivision 7 of this subsection, the operator of a facility shall train personnel based on the following requirements:

a. Each facility operator shall establish a training program for those facility personnel conducting the daily visual and weekly inspections of the facility. Facility records shall contain the basic information and procedures required by subdivision 8 c of this subsection (i.e., 9 VAC 25-91-130 A 8 c). The required training may be conducted by the operator or by a third party. The training program established shall be maintained to reflect current conditions of the facility.

- (1) The operator of a new facility shall establish the training program within six months after being brought into use.

1 the potential for a hazard; and

2
3 (4) The procedure for evaluating the condition of the aboveground
4 storage tanks and appurtenances.

5
6 d. The operator of a facility shall train facility personnel upon any changes
7 to the contents of the initial training program or every three years and shall
8 document this training in the facility records.
9

10 7. Leak detection.

11 The operator shall operate, maintain, monitor and keep records of the system
12 established for early detection of a discharge to groundwater (i.e., a method of
13 leak detection) as required by 9 VAC 25-91-170 A 18 and contained in the
14 facility's approved ODCP. These activities shall be inspected and approved by the
15 ~~department board~~^[mp81].

16
17
18
19
20 **9 VAC 25-91-140. Performance standards for aboveground storage tanks newly installed,**
21 **retrofitted, or brought into use.**

22
23 A. All ASTs shall be built in accordance with the applicable design standards adopted by
24 Underwriters Laboratories, the American Petroleum Institute, the Steel Tank Institute or other
25 standard approved by the board
26

27 B. All ASTs shall be strength tested before being placed in use in accordance with the applicable
28 code or standard under which they were built.
29

30 C. ASTs that have the tank bottom in direct contact with the soil shall have a determination
31 made by a corrosion professional as to the type and degree of corrosion protection needed to
32 ensure the integrity of the tank system during the use of the tank. If a survey indicates the need
33 for corrosion protection for the new installation, corrosion protection shall be provided.
34

35 D. ASTs installed ~~after the effective date of this chapter June 28, 1998~~^[mp82] shall have a
36 release prevention barrier (RPB) installed either under or in the bottom of the tank. The RPB
37 shall be capable of (i) preventing the release of the oil and (ii) containing or channeling the oil
38 for leak detection.
39

40 E. Existing ASTs that are retrofitted (reconstruction or bottom replacement) or brought back
41 into use shall be brought into compliance with subsections A, B, C, and D of this section. The
42 operator shall submit a schedule to the ~~board department~~^[mp83] of the work to be performed in
43 order to bring the existing AST into compliance with new-built construction standards. This
44 compliance schedule shall be submitted to the ~~board department~~^[mp84] no less than six months
45 prior to the anticipated completion date.
46

47 F. Operators of ASTs installed, retrofitted (reconstruction or bottom replacement) or brought
48 back into use shall also comply with 9 VAC 25-91-130 A or 9 VAC 25-91-130 B, whichever is
49 applicable.
50

51 G. All newly installed ASTs shall be constructed and installed in a manner consistent with the
52 applicable standards and requirements found in the Uniform Statewide Building Code and its

1 | referenced model codes and standards NFPA 30 and the BOCA[®] National Building Code or other
2 | standards approved by the board. Approval and any applicable permits shall be obtained from the
3 | local building official before construction starts.
4 |

5 | H. Compliance dates for subsections A through G of this section.
6 |

7 | 1. Operators of a newly installed, retrofitted or brought-back-into-use facility or AST
8 | shall comply with the requirements of this section within 30 days prior to being placed into
9 | service.
10 |

11 | 2. Operators of facilities existing on June 24, 1998 and exempted under § 62.1-44.34:17
12 | D of the Code of Virginia (i.e., exempted facilities not engaged in the resale of oil) shall
13 | comply have complied with these requirements within 120 days of the effective date of
14 | this chapter by October 22, 1998.
15 |

16 | 3. Operators of facilities existing on June 24, 1998 and not exempted under § 62.1-
17 | 44.34:17 D of the Code of Virginia (i.e., exempted facilities not engaged in the resale of
18 | oil) and who have met these requirements on or before June 30, 1993, shall be deemed to
19 | be in compliance with these requirements as of the effective date of this chapter.
20 |

21 | **9VAC25-91-145. Performance standards for certain aboveground storage tanks located in the**
22 | **City of Fairfax.**
23 |

24 | A. The requirements of this section apply to aboveground storage tanks at facilities with an aggregate
25 | capacity of one million gallons or greater existing prior to January 29, 1992, and located in the City
26 | of Fairfax.
27 |

28 | B. All ASTs altered as required by this section shall be strength tested before being returned to use in
29 | accordance with the applicable code or standard under which they were built.
30 |

31 | C. All ASTs shall contain a release prevention barrier (RPB) either under or in the bottom of the tank.
32 | The RPB shall be capable of: (i) preventing the release of the oil and (ii) containing or channeling the
33 | oil for leak detection. Existing elevated ASTs that are installed in containment areas meeting the
34 | requirements of an RPB or that are located within earthen containment dikes and are included in the
35 | daily and weekly inspections required by 9VAC25-91-130 A 7 shall be considered to be in
36 | compliance with the requirements of this section.

37 | D. All ASTs altered as required by this section shall meet the applicable standards and requirements
38 | found in the Uniform Statewide Building Code or other standards approved by the board. Approval
39 | and any applicable permits shall be obtained from the local building official before altering ASTs.
40 |

41 | E. Operators of facilities subject to this section shall meet the performance standards of this section
42 | no later than July 1, 2021.
43 |

43 | [mp85]
44 |

45 | **9 VAC 25-91-150. Recordkeeping and access to facilities.**
46 |

1 A. Each operator of a facility subject to this chapter shall maintain the following records:
2

- 3 1. All records relating to all required measurements, ~~and inventory~~ and reconciliation of oil
4 at the facility;
5
6 2. All records relating to required tank/pipe testing;
7
8 3. All records relating to spill events and other discharges of oil from the facility;
9
10 4. All supporting documentation for developed contingency plans;
11
12 5. All records for implementation and monitoring of leak detection and applicable
13 provisions of 9 VAC 25-91-170 A 18 of Part IV (9 VAC 25-91-170, Oil Discharge
14 Contingency Plan (ODCP) Requirements) of this chapter;
15
16 6. All records relating to training of individuals; and
17
18 7. All records relating to facility and tank inspections;
19
20 ~~7~~8. Any records required to be kept by statute or regulation of the board.

21 B. These records shall be kept by the operator of a facility at the facility or at an alternate
22 location approved by the board for a period of no less than five years unless otherwise indicated.
23

24 C. Upon request, each operator shall make these records available to the ~~board department~~_{mp86}
25 and to the director or coordinator of emergency services for the locality in which the facility is
26 located or to any political subdivision within one mile of the facility.
27

28 D. Operators shall maintain all records relating to compliance with this chapter for a period of no
29 less than five years from the date the ~~board department~~_{mp87} receives notice of the closure unless
30 otherwise indicated. These records shall be made available to the ~~board department~~_{mp88} at any
31 time upon request.
32

33 **9 VAC 25-91-160. Variances to the requirements of Part III (9 VAC 25-91-130 *et seq.*) of
34 this chapter.**
35

36 A. General criteria for granting a variance on a case-by-case basis.
37

38 1. The board is required by § 62.1-44.34:15.1 of the Code of Virginia to establish the
39 criteria to grant variances of the AST pollution prevention requirements on a case-by-case
40 basis and by regulation for categories of ASTs. Any person affected by this chapter may
41 petition the board to grant a variance of any requirement of Part III (9 VAC 25-91-130 *et*
42 *seq.*) of this chapter.
43

44 2. The board will not grant any petition for a variance related to:
45

- 46 a. Definitions;
47
48 b. Registration;
49
50 c. Classification of aboveground storage tanks; or
51
52 d. Oil discharge contingency plans.

53 3. The board may grant a variance if:

1
2 Street Address:
3

4 Department of Environmental Quality
5
6 Office of Spill Response and Remediation
7
8 629 E. Main Street
9
10 Richmond, VA 23219
11

12 C. Petition processing.
13

- 14 1. After receiving a petition that includes the information required in subdivision B 1 of
15 this section (i.e., 9VAC 25-91-160 B 1), the board will determine whether the
16 information received is sufficient to render the decision. If the information is deemed to
17 be insufficient, the board will specify additional information needed and request that it be
18 furnished.
19
- 20 2. The petitioner may submit the additional information requested, may attempt to show
21 that no reasonable basis exists for the request for additional information, or may withdraw
22 the petition. If the board agrees that no reasonable basis exists for the request for additional
23 information, the board will act in accordance with subdivision 3 b of this subsection (i.e., 9
24 VAC 25-91-160 C 3 b). If the board continues to believe that a reasonable basis exists to
25 require the submission of such information, the board will deny the petition.
26
- 27 3. After the petition is deemed complete:
28
- 29 a. The board will review the petition;
 - 30
 - 31 b. After evaluating the petition, the board will notify the applicant of the following
32 final decision:
33
 - 34 (1) Petition is denied;
 - 35
 - 36 (2) Requested variance is granted; or
 - 37
 - 38 (3) Modified or partial variance is granted;
 - 39
 - 40 c. The board shall send written notification of the variance to the chief
41 administrative officer of the locality in which the facility is located; and
42
 - 43 d. If the board grants a variance request, the notice to the petitioner shall provide
44 that the variance may be terminated upon a finding by the board that the petitioner
45 has failed to comply with any variance requirements.
46

47 D. Variance by regulation for categories of ASTs.
48

- 49 1. ASTs totally off ground with (a) all associated piping off ground, (b) all associated
50 buried piping double walled, or (c) all associated piping meeting the requirements
51 using a combination of (a) and (b), shall not be subject to inventory control or testing
52 for significant variation.
53
- 54 2. ASTs with a capacity of 5,000 gallons or less located within a building or structure
55 designed to fully contain a discharge of oil shall not be subject to inventory control or

1 testing for significant variation.
2

3 3. ASTs containing No. 5 or No. 6 fuel oil for consumption on the premises where stored
4 shall not be subject to inventory control or testing for significant variation.
5

6 4. ASTs with release prevention barriers (RPBs) with (a) all associated piping off ground,
7 (b) all associated buried piping double walled, or (c) all associated piping meeting the
8 requirements using a combination of (a) and (b), an established corrosion rate and
9 cathodic protection that protects the entire area of the tank bottom shall not be subject to
10 inventory control or testing for significant variation.
11

12 5. ASTs with release prevention barriers (RPBs) with (a) all associated piping off ground,
13 (b) all associated buried piping double walled, or (c) all associated piping meeting the
14 requirements using a combination of (a) and (b), and with secondary containment that is
15 72 hours impermeable shall not be subject to inventory control or testing for significant
16 variation.
17

18 6. ASTs that meet the construction and installation standards of STI - F911-93, F921-93,
19 or F941-94 or equivalent standards approved by the board shall not be subject to inventory
20 control or testing for significant variation.
21

22 7. For refineries with a continuous leak detection monitoring system and cathodic
23 protection of the AST and piping, a significant variation of inventory shall be considered a
24 loss in excess of 3.0% by weight of the difference between the refinery's input and output.
25

26 8. Vaulted tanks meeting UL 2245 or an equivalent standard approved by the board shall
27 not be subject to inventory control or testing for significant variation. The inspections for
28 these tanks [mp89] required in 9VAC25-91-130 A 7 and 9 VAC25-91-130 B 5 [mp90] need be
29 conducted no more frequently than once every 31 days. The criteria for the visual daily
30 inspection and weekly inspection checklist shall be incorporated into a monthly checklist.

31 9. An AST used in the production/manufacturing process with full containment that is 72
32 hours impervious shall not be subject to inventory control or testing for significant variation.
33

34 10. An AST of 12,000 gallons or less with full containment that is 72 hours impervious,
35 inside a building and used for the storage of heating oil consumed on the premises shall not
36 be subject to inventory control or testing for significant variation.
37

38 11. A double walled AST shall not be subject to inventory control or testing for significant
39 variation. The inspections required in 9VAC25-91-130 A 7 and 9 VAC25-91-130 B 5 need be
40 conducted no more frequently than once every 31 days. The criteria for the visual daily
41 inspection and weekly inspection checklist shall be incorporated into a monthly checklist.

42
43 **PART IV.**
44 **OIL DISCHARGE CONTINGENCY PLAN (ODCP) REQUIREMENTS.**
45

46
47
48 **9 VAC 25-91-170. Contingency plan requirements and approval.**

1
2 A. Section 62.1-44.34:15 of the Code of Virginia requires that all facility oil discharge
3 contingency plans must conform to the requirements and standards determined by the
4 Board ^[mp91] to be necessary to ensure that the applicant can take such steps as are necessary
5 to protect environmentally sensitive areas, to respond to the threat of an oil discharge, and to
6 contain, clean up and mitigate an oil discharge within the shortest feasible time. Each such plan
7 shall provide for the use of the best available technology (economically feasible, proven effective
8 and reliable and compatible with the safe operation of the facility) at the time the plan is submitted
9 for approval and, in order to be approvable, shall contain, at a minimum, the following
10 requirements:

- 11
12 1. The name of the facility, geographic location and access routes from land and water if
13 applicable;
- 14
15 2. The names of the operators of the facility including address and phone number;
- 16
17 3. A physical description of the facility consisting of a plan of the facility which identifies
18 the applicable oil storage areas, transfer locations, control stations, above and below
19 ground oil transfer piping within the facility boundary (and including adjacent easements
20 and leased property), monitoring systems, leak detection systems and location of any
21 safety protection devices;
- 22
23 4. A copy of the material safety data sheet (MSDS) or its equivalent for each oil or
24 groups of oil with similar characteristics stored, transferred or handled at the facility. To
25 be equivalent, the submission shall contain the following:
 - 26
27 a. Generic or chemical name of the oil;
 - 28
29 b. Hazards involved in handling the oil; and
 - 30
31 c. A list of fire-fighting procedures and extinguishing agents effective with
32 fires involving each oil or groups of oil demonstrating similar hazardous
33 properties which require the same fire-fighting procedures;
- 34
35 5. The maximum storage or handling capacity of the facility and the individual tank
36 capacities or, in the case of a pipeline, the average daily throughput of oil;
- 37
38 6. A complete listing, including 24-hour phone numbers, of all federal, state and local
39 agencies required to be notified in the event of a discharge;
- 40
41 7. The position title of the individuals responsible for making the required notifications
42 and a copy of the notification check-off list;
- 43
44 8. The position title, address and phone number of the individuals authorized to act on
45 behalf of the operator to implement containment and cleanup actions. This individual shall
46 be available on a 24-hour basis to ensure the appropriate containment and cleanup actions

1 any other data obtained from those same wells shall be maintained at the facility, compiled, and
2 submitted to the ~~board department~~^{imp94} annually in the following format:

3
4 I. Monthly gauging of GCS groundwater monitoring wells.

5 1.0 Summary of measurement procedures.

6 2.0 Table of static water levels recorded from monitoring wells.

7
8
9 II. Quarterly GCS groundwater vapor monitoring.

10 1.0 Summary of groundwater and vapor collection procedures.

11 2.0 Table of vapor measurements from monitoring well headspace.

12 3.0 Table of groundwater monitoring well visual inspection results.

13
14
15 III. Annual GCS groundwater quality evaluation.

16 1.0 Summary of groundwater collection methods.

17 2.0 Summary of groundwater analytical results and interpretation.

18 3.0 Table of analytical methods used.

19 4.0 Table of analytical results.

20 5.0 Table of field and trip blank results.

21 6.0 Groundwater laboratory data including chain-of-custody forms.

22 7.0 Laboratory quality assurance review.

23
24
25
26
27
28
29
30 B. The annual GCS monitoring report shall include the facility name and address, operator, and
31 consultant, if any, who prepared the report, contact person and the date the report was submitted.

32
33
34 **9 VAC 25-91-210. Response.**

35
36 Should any observations or data indicate the presence of petroleum hydrocarbons in groundwater,
37 the results shall be immediately reported to the board and to the local director or coordinator of
38 emergency services appointed pursuant to § 44-146.19 of the Code of Virginia.

39 **PART VI. REFERENCED PUBLICATIONS. RESOURCES AVAILABLE**

40
41
42
43 **9 VAC 25-91-220. Referenced publications. Resources available.**

44
45 A. The following documents or portions thereof are resources referenced or provide guidance in
46 this chapter.

47
48 NOTE: Portions of this regulation relating to installation, repair, upgrade and closure of
49 aboveground storage tanks are incorporated by state Housing law Section 36-99.6 as a part of the
50 Virginia Uniform Statewide Building Code (USBC). The USBC referenced model codes and

standards apply as promulgated by the Virginia Department of Housing and Community Development.

NOTE: The Facility and Aboveground Storage Tank regulations (9VAC25-91-10 et seq.) do not contain all applicable requirements for aboveground storage tanks in Virginia. Section 36-99.6 of the Code of Virginia requires the Board of Housing and Community Development, to incorporate as part of the building code, regulations adopted and promulgated by the State Water Control Board governing the installation, repair, upgrade and closure of aboveground storage tanks. Portions of this regulation are incorporated into the Virginia Uniform Statewide Building Code (USBC). The USBC referenced model codes and standards apply as promulgated by the Virginia Department of Housing and Community Development.^[mp95]

1. Underwriters Laboratories Standards: Specification 142, ‘Steel Aboveground Tanks for Flammable and Combustible Liquids,’ Seventh Edition; Ninth Edition;

Underwriter’s Laboratory Standard 2245, "Standard for Below-Grade Vaults for Flammable Liquid Storage Tanks," Second Edition, December 28, 2006;

^[mp96]2. American Petroleum Institute (API) Standards:

a. API 12B: Specification 12B and Supplement 2, October 1, 1990 October 2008, “Specification for Bolted Tanks for Storage of Production Liquids,” Thirteenth-Fifteenth Edition;^[mp97]

b. API 12D: Specification 12D and Supplement 2, 1982 as supplemented 1985 October 2008, “Specification for Field Welded Tanks or for Storage of Production Liquids,” Ninth-Eleventh Edition;^[mp98]

c. API 12F: Specification 12F-F, and Supplement 1, 1982 as supplemented 1988, October 2008, “Specification for Shop Welded Tanks for Storage of Production Liquids,” Tenth-Twelfth Edition;^[mp99]

d. API 570: Piping Inspection Code, Code: In-service Inspection, Repair, Alteration, Alteration of Piping Systems, November 2009 and Rerating Of In-Service Piping Systems, Second-Thirdfirst edition, June 1993 October 1998;

^[mp100]e. API 575: Inspection of Existing Atmospheric and Low-pressure Storage Tanks, Second edition, May 2005

e.f. API 620: Standard 620, “Design and Construction of Large, Welded, Low-Pressure Storage Tanks, February 2008. Includes Addendum 1 (2009), Addendum 2 (2010), and Addendum 3 (2012) , Eleventh edition^[mp101]1990, “Design and Construction of Large, Welded, Low-Pressure Storage Tanks,” Eighth Edition;

f.g. API 650: Standard 650, June 2001, 1988, “Welded Steel Tanks for Oil Storage,” EighthEleventh edition, Includes Addendum 1 (2008), Addendum 2 (2009), Addendum 3 (2011), Errata (October 2011) Edition;^[mp102]

1
2 h. API^[mp103] 651: Recommended Practice 651, January 2007, “Cathodic Protection
3 for Above Ground Petroleum Storage Tanks,” Third Edition
4

5 ~~g.l. API 652: Recommended Practice 652, April 1991/October 2005, “Lining of~~
6 ~~Aboveground Petroleum Storage Tank Bottoms,” First-Third Edition;~~^[mp104]
7

8 ~~h.j. API 653: API Standard 653, January 1991/April 2009, “Tank Inspection, Repair,~~
9 ~~Alteration, and Reconstruction” First-Fourth Edition, incorporates supplement 1,~~
10 ~~January 1992; Includes Addendum 1 (2010), Addendum 2 (2012)~~^[mp105]
11

12 k. API 1632: Recommended Practice 1632- Cathodic Protection of Underground
13 Petroleum Storage Tanks and Piping systems. 2002, Third edition^[mp106]
14

15 ~~h.l. API 2350: Recommended Practice 2350, March 1987/January 2005, “Overfill~~
16 ~~Protection for Petroleum Storage Tanks”; Third edition~~^[mp107]
17

18 3. ~~National Fire Protection Association (NFPA) Standards:~~
19

20 a. ~~NFPA 30, “Flammable and Combustible Liquids Code,” 1996 edition;~~
21

22 b. ~~NFPA 30A, “Automotive and Marine Service Station Code,” 1990 edition;~~
23

24 4. ~~National Association of Corrosion Engineers (NACE) Standards: Recommended~~
25 ~~Practice 0285-95 (1995), “Control of External Corrosion on Metallic Buried, Partially~~
26 ~~Buried, or Submerged Liquid Storage Systems”; National Association of Corrosion~~
27 ~~Engineers (NACE) SP0285-2011 (formerly RP0285), “Corrosion Control of~~
28 ~~Underground Storage Tank Systems by Cathodic Protection”~~
29

30 ~~45. 40 CFR Part 112, (1997) (July 1, 2011) “Oil Pollution Prevention”;~~
31

32 ~~56. 29 CFR Part 1910.106, (1997) (July 1, 2011) “Flammable and Combustible Liquids”;~~
33

34 ~~67. Uniform Statewide Building Code (USBC), 1996 edition and its referenced model codes~~
35 ~~and standards, as promulgated by the Virginia Department of Housing and Community~~
36 ~~Development; (March 1, 2009)~~
37

38 ~~78. Virginia Statewide Fire Prevention Code (SWFPC), 1996 edition; (May 1, 2008)~~
39

40 9. ~~Building Officials & Code Administrators International, Inc. (BOCA);~~

41 ~~BOCA National Building Code, 1996 edition:~~

42 a. ~~Chapter 32 Flammable and Combustible Liquids;~~
43

44 b. ~~Chapter 23 Hazardous Materials; and~~
45

46 ~~108. Steel Tank Institute (STI), Standards and Recommended Practices:~~
47

48 a. ~~STI Standard for Diked Aboveground Storage Tanks F911-93;~~
49

50 ~~b. STI Standard for Aboveground Tanks with Integral Secondary Containment~~
51 ~~F921-93 revised July 2011;~~
52

^[mp108]

1 | c. STI Fireguard™. Specifications for Fireguard Protected- Thermally Insulated
2 | Aboveground Storage Tank Standard Tanks F941-94 F941; [mp109]

3 |
4 | d. STI - SP001 “Standard for The Inspection of Aboveground Storage Tanks”, 5th
5 | Edition Issued September 2011.
6 |

7 | B. The issue of the industry specification, standard, or code, including addenda or changes,
8 | described in this chapter as resource referenced publications, shall be used unless circumstances
9 | warrant the use of an earlier date and are specifically authorized by the board.
10 |

11 | C. This chapter refers to resources that may be used to comply with provisions of the regulations.
12 | These resources are available through the Internet; therefore, in order to assist the regulated
13 | community, the resource reference document owner’s contact information, including uniform
14 | resource locator or iInternet address is provided for each of the resource references listed in this
15 | section.

16 | 1. Underwriter’s Laboratories, <http://www.ul.com/global/eng/pages/solutions/standards/>,
17 | Underwriter’s Laboratories, 2600 N.W. Lake Rd, Camas, WA 98607-8542

18 | 2. American Petroleum Institute, <http://api.org> , API, 1220 L Street, NW, Washington, DC
19 | 20005-4070

20 | 3. National Association of Corrosion Engineers , <http://nace.org> , NACE, 1440 South Creek
21 | Drive, Houston, TX USA 77084-4906

22 | 4. Code of Federal Regulations, <http://www.gpo.gov/fdsys/>,

23 | 5. Virginia Uniform Statewide Building Code (USBC)-
24 | http://www.dhcd.virginia.gov/StateBuildingCodesandRegulations/Virginia_Uniform_Statewide_Building_Code.htm , Virginia Department of Housing and Community Development , Main Street
25 | Centre , 600 East Main Street, Suite 300 , Richmond, VA 23219
26 |

27 | 6. Steel Tank Institute- www.steeltank.com , 944 Donata Ct., Lake Zurich, IL 60047 [mp110]
28 |

Project 2712 - NOIRA

DEPARTMENT OF HEALTH

Amend regs for tourist establishment swimming pools/other public pools as a result of periodic revision

Compare this with ICC pool code just approved do spring and summer of 2012 as VDH is doing rewrite of these in 2012.

Part I General Provisions

12VAC5-460-10. Definitions.

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

~~"Construction" means any construction, remodeling, or major alterations. Delete 7-12~~

~~"Design load" means the maximum number of persons permitted in the pool at any given time, to be determined by dividing the total square footage of swimming pool water surface area by 27. Change to another term besides design-712~~

"Local health department" means the department established in each city and county in accordance with §32.1-1-30 of the Code of Virginia.

~~"Operator" or "manager" means the individual or individuals responsible for operation and management of the lodging facility and all of its facilities including the swimming pool. any person who operates a swimming pool at a transient lodging establishment.~~

"Person" means an individual, firm, corporation or association.

"State Health Commissioner" means the Commissioner of Health for the Commonwealth of Virginia.

"Swimming pool" or "pool" means any structure, basin chamber, or tank, located either indoors or outdoors, containing an artificial body of water intended to be used for swimming, wading, diving or recreational bathing, including spas and hot tubs, and having a water depth of 6 inches or more at any point. USBC has 24 inches. Keep 24 inches and do new definition for spray pool. 7-12

"Tourist Establishment Swimming pool" shall mean any swimming, wading, or spray pool, including all appurtenant equipment, structures, and facilities provided for the use of guests by transient lodging establishments.

"Transient lodging establishments" shall mean any hotel, motel, campground, or summer camp issued a permit to operate by the State Health Commissioner through the local health department.

12VAC5-460-20. Authority.

12VAC5-460-30. Scope.

This chapter applies only to swimming pools at transient lodging establishments as follows:

- 1. The construction criteria of this chapter applies only to swimming pools at transient lodging establishments constructed or remodeled after the effective date of this chapter; and not otherwise regulated by the USBC might work? Vernon to do language referencing COV and USBC 7-12**
- 2. The operation criteria apply to swimming pools at all transient lodging establishments, regardless of construction date. However, for swimming pools constructed prior to the effective date of this chapter that do not comply with the**

operation criteria on the effective date of this chapter, the operator has until January 1, 2014 to bring the swimming pools operation into compliance with this chapter.

12VAC5-460-40. Purpose.

This chapter has been promulgated by the State Board of Health to specify the following requirements to protect public health:

1. ~~A procedure for submission of plans for swimming pools constructed at transient lodging establishments after the effective date of these regulations; delete 7-12~~
2. A procedure for obtaining a license (permit) to operate a swimming pool at transient lodging establishments; and
3. Criteria for the safe operation of swimming pools at transient lodging establishments;

12VAC5-460-50. Administration of regulation. Ok -7-12

This chapter is administered by the following:

1. The State Board of Health, hereinafter referred to as the board, has responsibility to promulgate, amend and repeal regulations necessary to protect the public health.
2. The State Health Commissioner, hereinafter referred to as the commissioner, is the chief executive officer of the State Department of Health. The commissioner has the authority to act within the scope of regulations promulgated by the board and for the board when it is not in session.
3. The district or local health director, hereinafter referred to as the director, is responsible for the permitting and inspection of food establishments located within the director's district and for assuring compliance with this part. The director is the duly designated officer or agent of the commissioner.

12VAC5-460-60. Relationship to Virginia Uniform Statewide Building Code. Would cover many items like the 6 inches for pool definition? Vernon to do rewrite and indicate when new regulations per USBC are applicable as these regulations will be approved by nearly 2 years before the USBC IBC adopts swimming pool requirements. 7-12

This chapter is in addition to the requirements of the Virginia Uniform Statewide Building Code. If there is a conflict between any section in this chapter and part of the Virginia Uniform Statewide Building Code, the requirements in the Virginia Uniform Statewide Building Code has precedence and shall rule.

12VAC5-460-20. -12VAC5-460-70. Local requirements. 7-12 for striked USBC terms.

In addition to the requirements of this chapter, all applicable local ordinances, including plumbing, building, electrical, and zoning ordinances shall also apply in the construction, maintenance, and operation of all swimming pools at transient lodging establishments.

USBC matters

12VAC5-460-30 80. Permits. Call operational permits. 7-12

A permit shall be obtained from the State Health Commissioner before the commencement of operation ~~construction, remodeling, or major alteration~~ of any swimming pool. Plans and specifications shall have been approved by the State Health Commissioner prior to the issuance of such permit. Plans and specifications must be submitted in triplicate to the State Health Commissioner, and one set of plans and specifications, when approved, will be so stamped and returned to the applicant. Original tracings will not be stamped for approval.

Part II

Swimming Pools Requirements; Design and Construction

12VAC5-460-40 90. Water supplies. ok

All water used in swimming pools shall be from sources that are approved by the State Health Commissioner. No piping arrangements shall exist which, under any conditions, will permit sewage or waste water to enter the swimming pool water system or water from the swimming pool to enter the make-up water supply.

12VAC5-460-50 100. Location. ok

The location of a pool shall in no way hinder the operation for which it is designed nor adversely affect the bathers' safety or water quality.

12VAC5-460-60 110. Materials of pool shell. Delete 7-12 or maybe restrict?

~~Swimming pool shells shall be constructed of reinforced concrete or its equivalent in strength and durability, designed and built to withstand anticipated stresses, water tight, and shall have smooth and easily cleanable surfaces. A white or light-colored waterproof interior finish which will withstand repeated brushings, scrubbing, and cleaning procedures shall completely line the pool to the coping. Pools and all appurtenances thereto shall be constructed of materials that are nontoxic to humans and the environment; that are generally or commonly regarded to be impervious and enduring; that will withstand the design stresses; and that will provide a watertight structure with a smooth and easily cleaned surface without cracks or joints, excluding structural joints, or to which a smooth, easily cleaned surface/finish is applied or attached. USBC and even maybe nontoxic surface or could be done in USBC for 2012?~~

12VAC5-460-70 120. Shape. Delete 7-12

~~The pool shall be designed and constructed of such shape, contour, etc., that efficient and safe control of the bathers can be accomplished. In water depths under five feet, the slope of the bottom shall not exceed one foot in 12 feet. Pool walls shall be vertical from the break point toward the deep end for at least three feet below the water line and vertical from the break point to the shallow end to within one foot of the finished floor of the pool. **This standard is not intended to regulate the perimeter shape of swimming pools. It is the designer's responsibility to take into account the effect a given shape will have on the safety of the occupants and required circulation to ensure sanitation. All other dimensions, unless otherwise specified, should allow a ± 2 inches (51mm) tolerance** USBC can or does cover.~~

12VAC5-460-130. Slope. Usbc covers Delete 1 and keep 2 and 3 until see ICC pool code. Slope is also health issue and defines swimming areas. Delete ADA reference. 7-12

~~Floor slopes shall be in compliance with subsections 1 through 5 below except the requirements by ADA Accessibility guidelines (ADAAG):~~

~~1. All pool floors shall be sloped to drain. USBC covers or can cover.~~

~~2. The slope of the floor in the shallow area shall not exceed 1 foot in 10 feet in any direction to the point of the first slope change, if slope change exists.~~

3. The point of the first slope change shall be defined as the point at which the floor slope exceeds 1 foot in 10 feet.

4. The slope of the floor from the point of the first slope change to the deep area shall not exceed 1 foot in 3 feet.

12VAC5-460-140. Walls. USBC can add as is construction. ICC has swimming pool code can adopt. May leave for now. 7-12

Where walls join the floor the transitional point or profile shall comply with the following:

1. Walls may intersect with the floor at an angle or transition profile.

2. At water depths between 3 feet to 5 feet (91 cm to 152 cm) the maximum radius shall be 2 feet 3 inches (69 cm).

3. At water depths of 3 feet (91 cm) or less transitional radius shall not exceed 6 inches (51 cm) and shall be tangent to the wall and may be tangent to or intersecting the floor.

4. At water depths greater than 3 feet (91 cm) a transitional radius shall be tangent to the wall at a point no less than 2 feet and 6 inches (76 cm) below the water surface and may progressively increase from 6 inches (5 cm) to a value capable of being tangent to or intersecting the floor.

12VAC5-460-150. Water Depths. Definition say 6 inches and USBC 24 inches but here minimum depth 3 feet? USBC 2012 change. Keep 7-12 as is swimming areas only.

Water depths for swimming areas shall be a minimum depth of 3 feet (91 cm).

12VAC5-460-160. Diving. USBC and joint functional design? Not in USBC right now took out as insurance companies restrict? Keep 7-12 as USBC not cover. See ICC pool code. Was in old BOCA and NSPI standards.

A. Diving equipment shall meet the following requirements:

1. Diving equipment shall be installed in accordance with the manufacturer's specifications;

2. A label shall be permanently affixed to the diving equipment or jump board and shall include, but not be limited the following:

a. The minimum water envelope required for each diving board and diving stand combination;

b. Manufacturer's name and address

c. Manufacturer's identification and date of manufacture, and

d. The maximum weight of the user, visibly located on the diving board.

3. The diving equipment manufacturer shall provide diving equipment use instructions

4. Diving equipment shall have slip-resisting tread surfaces;

5. The manufacturer of the diving equipment shall specify minimum water envelopes for its products. They may refer to the water envelope type of their choice by dimensionally relating their products to Point "a" on that water envelope. Point "A" as shown in figure 1 is designated as the point of origin on the water surface for the water envelope dimension.

- a. Point A is a point located on the water surface of pool water envelopes.
- b. Point A is a construction location nearest the deep end wall where the minimum water depth D_1 is satisfied.
- c. Point A, as shown in figure 1 and table 2, shall be the referenced point of origin for all dimensions defining a minimum water envelope.

Pool Type	Minimum dimensions								Minimum width of pool at:		
	D_1	D_2	R	L_1	L_2	L_3	L_4	L_5	Pt. A	Pt. B	Pt. C
VI	7'-0" (213 cm)	8'-6" (259 cm)	5'-6" (168 cm)	2'-6" (76 cm)	8'-0" (244 cm)	10'-6" (320 cm)	7'-0" (213 cm)	28'-0" (853 cm)	16'-0" (488 cm)	18'-0" (549 cm)	18'-0" (549 cm)
VII	7'-6" (229 cm)	9'-0" (274 cm)	6'-0" (183 cm)	3'-0" (91 cm)	9'-0" (274 cm)	12'-0" (366 cm)	4'-0" (122 cm)	28'-0" (853 cm)	18'-0" (549 cm)	20'-0" (610 cm)	20'-0" (610 cm)
VIII	8'-6" (259 cm)	10'-0" (305 cm)	7'-0" (213 cm)	4'-0" (122 cm)	10'-0" (305 cm)	15'-0" (457 cm)	2'-0" (61 cm)	31'-0" (945 cm)	20'-0" (610 cm)	22'-0" (671 cm)	22'-0" (671 cm)
IX	11'-0" (335 cm)	12'-0" (366 cm)	8'-6" (259 cm)	6'-0" (183 cm)	10'-6" (320 cm)	21'-0" (640 cm)	0 (0 cm)	37'-6" (11.4 m)	22'-0" (671 cm)	24'-0" (732 cm)	24'-0" (732 cm)

NOTE – For definition of pool types see Glossary

B Supports for diving equipment.

Supports, platforms, stairs, and ladders for diving equipment shall be designed to carry the anticipated loads. Stairs and ladders shall be of corrosion-resisting material and shall be easily cleanable and with slip-resisting tread. All diving stands higher than 21 inches (53 cm) measured from deck to the top butt end of the board shall be provided with stairs and/or ladder. Step treads shall be self-draining.

12VAC5-460-170. Rest ledges. ? sound like USBC but not in code now. Delete 7-12 in ICC pool code. NSPI standards.

Rest ledges along the pool walls are permitted. They must be no less than 4 feet (122 cm) below the water surface. If a ledge is provided it shall be at least 4 inches (10 cm) wide and no more than 8 inches (20 cm) wide.

12VAC5-460-180. Maximum user load. USBC and would need to change USBC tables. Occupant load USBC check leave for now. 7-12.

The maximum user load shall be in accordance with table 3.

Table 3 – Maximum User Load

<u>Pool/Deck area</u>	<u>Shallow instructional or wading areas</u>	<u>Deep area (not including the diving area)</u>	<u>Diving area (per each diving board)</u>
Pools with minimum deck area (See 7.1.6 through 7.1.6.1.)	15 sq. ft. per user (1.35 m ² per user)	20 sq. ft. per user (1.8 m ² per user)	300 sq. ft. (27 m ²)

<u> Pools with deck area at least equal to water surface area</u>	<u> 12 sq. ft. per user</u> <u> (1.08 m² per user)</u>	<u> 15 sq. ft. per user</u> <u> (1.35 m² per user)</u>	<u> 300 sq. ft.</u> <u> (27 m²)</u>
<u> Pools with deck area at least twice the water surface area</u>	<u> 8 sq. ft. per user</u> <u> (0.72 m² per user)</u>	<u> 10 sq. ft. per user</u> <u> (0.9 m² per user)</u>	<u> 300 sq. ft.</u> <u> (27 m²)</u>

12VAC5-460-190. Wading pools. ? Leave for now 7-12

A wading pool shall be a separate pool with an independent circulation system and physically separated from the main pool as described below:

1. Areas where the water depth at the edge of the pool exceeds 9 inches (23 cm) shall be considered non-entry areas and must be protected by natural or artificial barriers.
2. Floors of wading pools shall be uniform and sloped to drain with a maximum slope of 1 foot in 12 feet (30 cm in 360 cm).
3. The maximum water depth shall be 18 inches (46 cm).
4. The maximum distance from the top of the deck to the line shall not exceed 6 inches (15cm).

12VAC5-460-80 200. Pool decks. Need to rewrite as some are USBC matters. 7-12

~~There shall be a deck at least four feet wide extending around the entire perimeter of the pool. The deck shall be constructed of concrete or other approved material. The material shall have a nonslip but smooth finish. The deck shall have a pitch of not less than 1/8 of an inch nor more than 5/8 of an inch to the foot and be so designed as to conduct drainage away from the pool area in a manner that will not create or maintain pools of water or a nuisance.~~

Decks shall comply with the following as applicable. USBC and would need to amend for ACI standard, ADA in USBC, #4 in USBC handrails and risers

1. **Deck(s) shall be designed and installed in accordance with the engineering methods required by the authority having jurisdiction and shall be a minimum of four(4) feet unobstructed space around the entire perimeter of the pool.**
- a. **In the absence of specified local requirements, a concrete deck shall be designed and constructed in accordance with the recommended practices of the most recent edition of American Concrete Institute (ACI) Standard 302.1R-96, Guide for concrete floor and slab construction, or in accordance with the requirements of the local authority, the authority having jurisdiction, or both. The deck shall be designed and constructed to meet the applicable requirements of the Americans with Disabilities Act. Most can be deleted in this section. Decks can be elevated so would be USBC construction.**
2. **Decks, ramps, coping, and similar step surfaces shall be slip resisting and cleanable**
3. **Special features in or on deck(s) such as markers, brand insignias, or similar materials shall be slip resisting.**
4. **Step risers for the deck shall be uniform and have a minimum height of 3-3/4 inches (9.5 cm) and a maximum height of 7-1/2 inches (19 cm). A handrail shall be provided for stairs having three or more risers. The minimum tread distance from front to back shall be 11 inches (28 cm).**

5. The deck or unobstructed access shall be provided at a minimum of 65% of the pool perimeter to meet the requirement of the 10/20 rule. (See appendix H, Glossary.)
 - a. A minimum 4 feet (122 cm) deck width shall be provided on the sides and rear of any diving equipment. A deck clearance of 3 feet (91 cm) shall be provided around all other deck equipment.
6. The minimum slope of the deck(s) shall be 1/8 inch per 1 foot (3.2 mm per 304.8 mm) for textured, hand finished concrete decks; 1/4 inch per 1 textured, hand-finished concrete decks; 1/4 inch per 1 foot (6.4 mm per 304.8 mm) for exposed aggregate concrete decks; 1/2 inch per 1 foot (12.7 mm per 304.8mm) for indoor/outdoor carpeting decks; and 3/8 inch per 1 foot (9.5 mm per 304.8 mm) for brick and heavy textures finishes, unless an alternate drainage method is provided that prevents the accumulation of pooling of water. (See table 4.)

Table 4 – Minimum Drainage Slopes

<u>Surface</u>	<u>Typical minimum drainage slope (inch per foot)</u>
Textured, hand-finished concrete	1/8 in. (3.2 mm)
Exposed aggregate	1/4 in. (6.4 mm)
Brick and heavy textures finished	3/8 in. (9.5 mm)

- a. Decks shall be sloped so that standing water shall be no deeper than 1/8 inch (3.2 mm), 20 minutes after the cessation of the addition of water on the deck. (Note: two stacked U.S. quarters can be used to measure the depth. Water should not cover the quarters.)
 7. The maximum slope of all decks, other than wood decks, shall be 1/2 inch per foot (12.7 mm per 304.8 mm) except for ramps.
 - a. The maximum slope for wood decks shall be 1/8 inch per 1 foot (3.2 mm per 304.8 mm).
 - b. Gaps shall be required between deck boards in wood decks and shall be consistent with approved engineering methods with respect to the type of wood used and shall not cause a tripping hazard
 8. The maximum open gap between pool decks and adjoining decks or walkways, including joint material, shall be 3/4 inch (19.1 mm). The difference in vertical elevation between pool deck and the adjoining sidewalk shall be 1/4 inch (6.4 mm) unless it conforms to 7.1.4.
 9. Construction joints where the pool coping meets the concrete deck(s) shall be watertight.
 10. Construction joints where the pool coping meets the concrete deck(s) shall be installed to protect the coping and its mortar bed from damage as a result of the anticipated movement of adjoining deck(s).
 11. Control joints in deck(s) shall be provided to minimize visible cracks outside the control joints due to imposed stresses and/or movement of the slab.
 12. Areas where decks join existing concrete work shall be protected by an expansion joint to protect the pool from the pressures of relative movements.
 13. The edges of all decks shall be radiused, tapered, or otherwise designed to eliminate sharp corners.

14. Valves installed in or under any deck(s) shall have access provided for operation, service, and maintenance. Access covers shall be provided.
15. Hose bib(s), with a cross connection control to prevent backflow, shall be provided for rinsing down the entire deck and shall be in accordance with the authority having jurisdiction.
16. Water-powered devices (such as water-powered lifts) shall have a dedicated hose bib (water source).

12VAC5-460-90 210. Deck equipment. Ok to leave. 7-12

Deck equipment including diving facilities and starting blocks shall comply with the following, as applicable:

1. A minimum 4 feet (122 mm) deck width shall be provided on the sides and rear of any diving equipment.
2. There shall be a completely unobstructed distance of 14 feet (427 cm) above the tip of the diving board or as specified by the diving equipment manufacturer or the authority having jurisdiction.
3. Tourist establishment pools with diving equipment of 1 meter (39 inches) or greater in height, or pools designed for springboard or platform diving, shall comply with the dimensional design requirements of Federation of Internationale de Natation (FINA), U.S. Diving, National Federation of State High Schools Association (NFSHSA) or the appropriate sanctioning body.

12VAC5-460-220. Swimming pool slides. Ok to leave check to see 7-12.

Swimming pool slides, when installed, shall comply with the requirements of the U.S. Consumer Product Safety Commission (CPSC) as published in the Code of Federal Regulations, 16 CFR, Part 1207. The manufacturer shall provide installation and use instructions with each slide. Each slide shall be installed in accordance with the manufacturer's instructions.

12VAC5-460-230. Play/water activity equipment.

When installed, play/water activity equipment shall be installed in accordance with manufacturer's instructions.

12VAC5-460-90 240. Fences. USBC covers Delete. 7-12

~~All outdoor swimming pools shall be enclosed by a substantial barrier or fence of at least three four feet in height to promote safety and cleanliness of water. A gate at least three four feet in height and of material as substantial as the fence or barrier shall be provided.~~

12VAC5-460-400 250. Steps and ladders. USBC. ok for now leave. 7-12

Two or more ladders shall be provided for all pools having a perimeter greater than 100 feet and one means of egress for pools having a perimeter of 100 feet or less. Steps projecting into the pool area are prohibited. Treads of all steps, ladders, or other means of ingress or egress shall be of nonslip construction. Each recessed step area shall be provided with one or more handrails.

12VAC5-460-260. Circulation systems USBC leave for now. see ICC code. 7-12

A circulation system consisting of pumps, piping, return inlets and suction outlets, filters, and other necessary equipment shall be provided for complete circulation of water. Wading pools and spas shall have separate dedicated filtering systems.

1. The equipment shall be of adequate size to turn over the entire pool water capacity as specified in table 5. The system shall be designed to give the proper turnover rate based on the manufacturer's recommended maximum pressure and flow rate of filter with clean media.

Table 5 – Turnover Rates

<u>Swimming pool category</u>	<u>Turnover rate</u>
<u>Swimming Pool</u>	<u>A minimum of 6 hours or less</u>
<u>Wading pools</u>	<u>1 hour</u>
<u>Public spas</u>	<u>30 inutes</u>

2. Water clarity shall be maintained. (See 8.5) When standing at the pool's edge at the deep end, the main drains at the deepest portion of the pool floor shall be clearly visible and sharply defined. (Clarity is a function of proper filtration and maintenance of proper chemical operational parameters. See appendix A.)
3. Circulation system components that require replacement or servicing shall be accessible for inspection, repair, or replacement and shall be installed in accordance with the manufacturer's specifications.
4. Circulation system components and equipment shall comply with the most recent edition of ANSI/NSF 50 *Circulation system components and related materials for swimming pools, spas/hot tubs*, or alternate criteria that is acceptable by the authority having jurisdiction.
5. Pool equipment and plumbing shall be supported in accordance with manufacturer's specifications to prevent damage from misalignment and settlement.

12VAC5-460-270. Water velocity. Leave for now but delete if in ICC pool code. 7-12

The water velocity in the pool piping shall not exceed 10 feet (304.8 cm) per second for discharge piping (except for copper pipe where the velocity shall not exceed 8 feet (243.8 cm) per second), and 6 feet (182.9 cm) per second for suction piping, and 1-1/2 feet (45.7 cm) per second flow rate through the suction grates.

1. Pool piping shall be sized to permit the rated flows for filtering and cleaning without exceeding the operating head of the pump.

12VAC5-460-280. Piping and fittings. USBC IPC delete. 7-12

The circulation system plastic pipe and fittings shall be nontoxic and shall be able to withstand the design operating pressure and condition of the swimming pool. Plastic pipe shall be process piping and shall be at least schedule 40 PVC weight and shall comply with ANSI/NSF 14 *Plastics piping components and related materials* or criteria acceptable to the authority having jurisdiction.

1. Pool piping subject to damage by freezing shall have a uniform slope in one direction and shall be equipped with valves for adequate drainage or shall be capable of evacuating water to prevent freezing and possible damage.

- ~~2. Equipment shall be designed and fabricated to drain the pool water from the equipment, together with exposed face piping, removal of drain plugs and manipulating valves, or by other methods. Refer to the manufacturer's specifications for information on draining the system.~~

12VAC5-460-290. Pool Fittings and Circulation equipment USBC. Leave for now. check ICC pool code. 7-12

All pools and spas shall be equipped with a pump suction (vacuum) gauge, filter inlet pressure gauge, filter outlet gauge, and flow meter.

1. Each public swimming pool and wading pool shall be equipped with a flow-measuring device that indicates the rate flow through filter system. The flow rate measuring device shall read out in gallons per minute (liters per minute) and shall be selected and installed to be accurate within 10% actual flow.
2. A wading pool shall be separate with an independent circulation system and shall be physically separated from the main pool as described in 8.4.2.1 through 8.4.2.4.
 - a. Wading areas where the water depth at the edge of the pool exceeds 9 inches (23 cm) shall be considered non-entry areas and must be protected by natural or artificial barriers.
 - b. Floors of wading pools shall be uniform and sloped to drain with a maximum slope of 1 foot in 12 feet (30 cm in 360 cm).
 - c. The maximum water depth shall be 18 inches (46 cm).
 - d. The maximum distance from the top deck to the water line shall not exceed 6 inches (15 cm).

12VAC5-460-300. Water clarity and chemistry. VDH-712

The circulation system shall be designed to maintain water clarity and to distribute chemicals as required for pool sanitation (see article 17). The pool water shall circulate at all times when the pool is open for use, plus any additional time necessary to ensure continuous water clarity and chemical distribution.

12VAC5-460-310. Filters USBC. leave for now. 7-12.

1. Filters shall be sized to accommodate or exceed the design flow rate of the system and provide water clarity as noted in 9.1.1 and 9.5. See the manufacturer's instructions.
2. Filters shall comply with the most recent addition of ANSI/NSF 50.
3. Filters shall be designed so that filtration surfaces can be inspected and serviced.
4. Maximum flow rate of filters shall not exceed the requirements of the most recent edition of ANSI/NSF 50.

12VAC5-460-320. Pumps and motors USBC. leave for now and out check ICC pool code.- 7-12

1. A pump and motor shall be provided for circulation of the pool water. The pump shall be capable of providing the flow required for filtering the pool water in accordance with 8.1.1 and filter cleaning (if applicable) against the total dynamic head developed by the complete system.
 - a. Where pumps are within the scope of ANSI/NSF-50, *Circulation system components and related materials for swimming pools, spas/hot tubs*, they shall comply with the most recent edition.
2. Pump horsepower rating and labeling shall not exceed the brake horsepower of the motor.

3. A cleanable strainer or screen shall be provided, upstream of the circulation pump(s), to remove solids, debris, hair, lint, etc., on all pressure filter systems where intake strainers are within the scope of ANSI/NSF-50.
4. Pump(s) and motor(s) shall be accessible for inspection and service in accordance with the manufacturer's specifications.
5. The design, construction, and installation of the pump(s) and component parts shall provide safe operation and service in accordance with the manufacturer's specifications.
 - a. The pump shall not be operated if the main drain gate, or anti-vortex plate, is missing, broken, or loose. The swimming pool, spa, hot tub, wading pool, or whirlpool bathtub appliance shall be shut down immediately and remain shut down until proper repair or replacement has been accomplished.
6. Where a mechanical pump seal is provided, components of the seal shall be corrosion-resisting and capable of operating under conditions normally encountered in pool operation.
7. All motors shall have an open, drip proof enclosure (as defined by ANSI/NEMA-MGI, *Motors and generators*) and be constructed electrically and mechanically to perform satisfactorily and safely under the conditions of load and environment normally encountered in swimming pool installations.
8. All motor(s) shall be capable of operating the pump under full load with a voltage variation of $\pm 10\%$ from the nameplate rating. If the maximum service factor of the motor is exceeded (at full voltage), the manufacturer shall indicate this on the pump curve.
9. All motors shall have thermal or current overload protection, either built in or in line starter, to provide locked rotor and running protection.
10. Pumps located below the waterline shall have valves installed on suction and discharge lines, in an accessible place, for maintenance and removal of the pump.

12VAC5-460-330. Inlets and outlets USBC in code now. Delete 7-12

1. The suction outlet(s) including covers, fittings, and hardware shall be designed in accordance with the manufacturer's specifications to provide protection from body and hair entrapment and are in compliance with the requirements of the Virginia Graham-Baker Act. A copy of the Virginia Graham-Baker Act can be obtained from the U.S. Consumer Product Safety Commission. The Consumer Product Safety Commission is the agency responsible for enforcing the Virginia Graham-Baker Act.
2. Suction outlet(s) (other than skimmers) that measure less than 12 inches x 12 inches (144 sq. in.) ($30.5 \text{ cm} \times 30.5 \text{ cm} = 930 \text{ cm}^2$) shall be provided with covers that have been tested by a nationally recognized testing laboratory and comply with the most recent edition of ASME/ANSI A112.19.8M *Suction fittings for use in swimming pools, wading pools, spas, hot tubs, and whirlpool bathtub appliances.*
3. If a single or multiple pump suction system is located below the waterline and any one of the suction outlets becomes blocked, the flow through the remaining suction outlet shall be designed to accommodate 100% of the circulation turnover rate. If located at the waterline, a single suction outlet (such as skimmer, overflow grate, infinity wall, etc.) shall be permitted provided it is vented to the atmosphere.
4. Water velocity through suction grates shall be permitted to exceed 1.5 ft/s (0.4m/sec) if the grate(s) comply with the most recent edition of ASME/ANSI A112.19.8M.
5. Inlets and outlet(s) shall be provided and arranged to produce a uniform circulation of water and maintain the distribution of sanitizer residual throughout the pool.
6. The number of return inlets shall be based on a minimum of one return inlet per 300 square feet (27.87m^2) of pool surface area, or fraction thereof. Return inlet fittings shall be of sufficient size or quantity to allow a full turnover rate of the

~~circulation system in accordance with the manufacturer's specifications for return inlets.~~

- ~~7. Inlets and outlets from the circulation system shall be designed so that they do not constitute a hazard to the user.~~
- ~~8. The pool shall not be operated if any outlet grate is missing, broken, or secured in such a way that it is removable without the use of tools, unless removal still provides the equivalent means of protection.~~
- ~~9. Where provided, the vacuum cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches (152 mm) and no greater than 18 inches (457 mm) below the minimum operating water level or as an attachment to the skimmer(s).~~

12VAC5-460-340. Surface skimming systems USBC. leave for now but delete if in ICC pool code. 7-12

1. A surface skimming system shall be provided on all public swimming pools. The surface skimming system shall be designed and constructed to skim the pool surface when the water level is maintained within the operational system.
2. Skimming devices shall be designed and installed so as not to constitute a hazard to the user. When equalizer lines are used, they shall have an anti-entrapment cover or other entrapment protection in accordance with the most recent edition of ASME/ANSI A112.19.8M. Skimmer covers located on a walking surface shall be securely seated, slip resistant, of sufficient strength to withstand normal deck use, and not constitute a tripping hazard.
3. Where automatic surface skimmers are used as sole overflow system, at least one surface skimmer shall be provided for each 500 square feet (46 m²) or fraction thereof of the water surface area. Recessed areas such as stairs, swimouts, and spas shall not be considered in the calculation. When skimmers are used, they shall be located to maintain effective skimming action.
 - a. A single pump circulation system shall be designed to handle a minimum of 100% of the pool turnover rate through skimmers.
 - b. A multiple pump circulation system shall be designed to handle a minimum of 100% of the pool turnover rate through the skimmers
 - c. When an equalizer line is used, the opening at the pool wall shall be covered with a fitting to prevent hair entrapment in accordance with the most recent edition of ANSI/ASME A112.19.8M.
4. When a perimeter-type surface skimming system is used as the sole surface skimming system, it shall extend around a minimum of 50% of the pool. (See 12.3)
 - a. When perimeter surface skimming systems are used, they shall be connected to the circulation system with a system surge capacity of not less than 1 gallon for each square foot (40.7 liters per square meter) of pool surface. The capacity of the perimeter overflow system and related piping may be considered as a portion of the surge capacity.
5. The hydraulic capacity of the surface skimming overflow system shall be capable of handling 100% percent of the circulation flow.

12VAC5-460-110. Overflow facilities.

~~Provision shall be made for removal of floating material and scum from the surface of the water.~~

~~If a recessed type of gutter located near the top of the walls is to be used, the gutter shall have a minimum depth of three inches and shall be of a design which will permit satisfactory cleaning of the overflow channel. The gutter drain outlets shall be spaced around the pool not more than 15 feet on centers. The gutter bottom shall slope toward these outlets with a~~

~~minimum slope of 1/8 of an inch to the foot. The drains shall not be less than 2 ½ inches in diameter and the total orifice area of the grating shall be at least twice the cross-sectional area of the outlet pipe.~~

~~For pools with overflowing gutters, a water level control tank shall be provided which will effectively provide for maintenance of the water level so as to produce constant surface skimming action at all times.~~

~~The above described gutter may be replaced by an arrangement of overflow devices in the pool walls which provides the proper removal of scum and floating material. There shall be one such device for each 400 square feet of pool area with a minimum of four per pool, each of which shall be individually controlled.~~

~~If the recirculation system is designed for water to enter the bottom portion of the pool and overflow the top, then adequate drainage of the scum and floating material from the deck must be provided. This drainage may be by a continuous drain or multiple drains. (See also 12VAC5-460-80.) In multiple drains, each drain grating shall have a total orifice area of as least four times the cross-sectional area of drain pipe, which shall have a minimum diameter of 2 ½ inches. In the use of drain channels, continuous to and around the perimeter of the pool, the channel grating shall be designed so as not to create a hazard to fingers and toes and be restraint to corrosion.~~

~~12VAC5-460-120. Inlets and outlets.~~

~~The inlets for recirculation shall be submerged and located to produce uniform circulation of water throughout the swimming pool without the existence of dead spots. Wall inlets should be located on not more than 20 foot centers entirely around the perimeter of the swimming pool. Bottom inlets shall be spaced, depending on the pool dimensions, so as to produce uniform water circulation. The number of bottom inlets shall be the same as required of wall inlets. Each inlet is to be designed as an adjustable orifice or provided with a valve.~~

~~An outlet drain shall be provided for completely emptying the swimming pool. Direct connection to a sanitary sewer shall not be permitted. Disposal of waste water to a storm sewer or natural watercourse shall be subject to approval of the State Health Commissioner. The outlet drain shall be covered with a grate of such design that it cannot be readily removed by, or produce any hazard to, the bathers.~~

~~12VAC5-460-130. Depth marking.~~

~~The depth of the water in the swimming pool shall be marked at every foot increment of depth in water depths five feet and under on both sides of the pool. In water deeper than five feet the markings need not be closer than three feet apart. Numerals and lettering shall be at least five inches in size and of good contrast with the walls and decks.~~

~~12VAC5-460-140. Diving boards.~~

~~At least 12 feet of free and obstructed headroom shall be provided above the diving boards.~~

~~The minimum depth of water in the diving area shall be determined as follows:~~

Elevation of Diving Point Above Water Surface	Depth of Water	DIMENSIONS	
		End wall to Maximum Depth	Maximum Depth to 5 ft.
0 to 24 in. inclusive	8 ft.	12 ft.	12 ft.
24 in. to 30 in. inclusive	8 ft.	13 ft.	17 ft.
30 in. plus to 1 meter inclusive	8 ft. 6 in.	15 ft.	20 ft.
1 meter plus to 3 meters inclusive	10 ft.	15 ft.	20 ft.
3 meters plus 5 meters	14 ft. 6 in.	17 ft.	23 ft.

~~The minimum length of any diving area terminating at a vertical wall shall be 30 feet.~~

~~Where multiple diving boards are used, the space between center lines shall not be less than 10 feet, and the center of no board shall be closer than 10 feet to a side wall. These dimensions shall apply both from a point of projection four feet from the end wall and the point of maximum depth.~~

~~The space between center lines of three-meter and five-meter diving boards shall be not less than 15 feet and between five-meter and 10-meter boards shall be not less than 18 feet. The minimum distances from center lines of five-meter and 10-meter boards shall be the same as to the side walls.~~

12VAC5-460-150. Lighting.

~~Where pools are to be used after dark, the swimming pool area shall be equipped with lighting fixtures of such number and design as to light all parts of the pool, the water therein, and the entire area. Fixtures should be installed in such a manner as to create no hazard to the bathers. The design and installation of the fixtures should be such that lifeguards can clearly see every part of the swimming pool including decks, spring boards, and other appurtenances without being blinded by glare. If installed, submarine lights shall provide at least one watt per square foot of pool area. Each submarine light shall be properly connected to a ground wire.~~

12VAC5-460-350. Electrical and illumination requirements USBC some but add rest 2012. Can set footcandles except for egress lighting. 7-12

- ~~1. Electrical requirements shall meet the requirements of the Virginia Uniform Statewide Building Code in effect at the time of construction.~~
- ~~2. During periods of operation sufficient illumination shall be provided to allow visibility of all portions of the pools, including the bottom. Illumination shall be provided by natural and/or artificial means.~~
- ~~3. Overhead lighting shall provide a minimum of three foot (91 cm) candles of illumination at the pool water surface and adjacent deck area.~~
- ~~4. Underwater lighting shall provide a minimum of ½ watt per square foot (5.4 watts per m²) of pool water surface.~~
- ~~5. Underwater lighting requirements may be waived when the overhead lighting provides a minimum of 15-foot (457 cm) candles of illumination at the pool water surface.~~

12VAC5-460-360. Waste water disposal VDH. 7-12

- ~~1. Backwash water or pool draining water shall be discharged to the sanitary or storm sewer, or into an approved disposal system on the premises, or by other means approved by the state or local authority. No such water shall be discharged into a septic tank system or other onsite sewage disposal system unless specifically designed and approved for that use only. No direct connections shall be made between the end of the backwash line and the disposal system. An appropriate air-gap shall be provided.~~
- ~~2. When necessary, filter backwash water and pool drainage water shall be treated chemically or through the use of settling tanks to eliminate or neutralize chemicals, diatomaceous earth(DE), or contaminants in the water that exceed the limits set by the state or local effluent discharge requirements.~~

12VAC5-460-370. Sanitizing equipment, chemical feeders, and chemical operational parameters VDH 7-12

- ~~1. Equipment standards. Sanitizing equipment shall comply with the requirements of the most recent edition of ANSI/NSF-50 *Circulation system components and related*~~

materials for swimming pools, spas/hot tubs, and shall be capable of introducing a sufficient quantity of a U.S. EPA-registered sanitizer to maintain the appropriate levels in article 17, under all conditions of intended use.

- a. Pools shall be required to have an independent mechanical sanitizing feed system installed and functioning in compliance with 17.1.2. Supplemental feeding of sanitizers or other treatment chemicals shall be in accordance with the label directions and shall be avoided when the pool is in use. Supplemental feeding of sanitizers via the skimmer basket(s) is not allowable when the pool is in use. Undissolved sanitizer shall not be present within the skimmer basket when the pool is in use.
 - b. The pool water shall contain sanitizer residuals at all times, as per 17.5, that can be easily measured by simple and accurate field tests. Only EPA-registered sanitizers with appropriate state and local registration shall be used.
2. Chemical feeders. The installation and use of chemical feeders shall conform to the following:
- a. A chemical feed system shall be installed in accordance with the manufacturer's specifications.
 - b. Chemical feed pumps shall be wired so they cannot operate unless there is adequate return flow to properly disburse the chemical throughout the pool as designed.
3. Training. Personnel responsible for the operation of the chemical feed equipment shall be properly trained in the operation of that equipment, the procedure for performing and interpreting the necessary chemical field tests, and the appropriate emergency procedures (see appendix E, Use of elemental chlorine).
4. Testing. Every public pool shall maintain a simple and accurate test kit capable of measuring pH and sanitizer residuals as per 17.5. The method used in determining the free available chlorine residual shall be such that chloramines or other oxidizers that may be present in the pool do not affect the determination. A DPD-type test kit is recommended.
- a. Where the addition of chemicals required to maintain pH value and sanitizer residual of the pool water is controlled by automatic sensing devices and the pH value and the sanitizer residual are automatically determined and displayed or continuously recorded, the operator shall at least once everyday determine, by means of manual test methods, the pH value and the free available chlorine residuals or bromine residual to ensure that the automatic sensing devices continue to maintain proper pH value and the sanitizer residual. The results of the manual testing and automatic sensing devices shall be recorded.
5. Chemical operational parameters. All pools covered by this standard shall be built and equipment installed such that when properly operated they comply with the following water quality standards and/or those required by the appropriate state or local authority. Additional chemical operational parameters are included in appendix A.
- a. All swimming pools when in use shall be continuously treated with a sanitizer to ensure that one of the following shall be met.

- i. there is a residual free chlorine maintained ideally between 1ppm and 3 ppm, but shall not be less than 1 ppm (1 mg/kg) nor more than 10 ppm (10 mg/kg); or
- ii. there is a residual of total bromine in all parts maintained preferably between 2 ppm and 6 ppm, but not less than 2 ppm (2 mg/kg), or more than 10 ppm (10 mg/kg).
- b. The pH of the water should be maintained between 7.4 and 7.6, but shall not exceed 7.8 or less than 7.2. Maintaining total alkalinity as per appendix A will help control pH within required range.
- c. Bacteria shall not exceed the levels set and monitored by the state and local health departments.
- d. Water clarity shall be maintained such that the deepest part of the pool and/or main drain is clearly visible and sharply defined when viewed from the pool's edge.

12VAC5-460-380 Specific safety features USBC not in code 2012 matter. VDH ok 7-12.

1. Handholds. Handholds shall conform to subsections a and b below.
 - a. .Public pools shall be provided with a handhold around the perimeter in areas where depths exceed 3 feet – 6 inches (107 cm). Handholds shall be provided no farther apart than 4 feet (122 cm).
 - b. Handholds shall include but are not limited to any one or a combination of items listed in 18.1.2.1 through 18.1.2.3.
 - i. Coping, ledge, or deck along the immediate top edge of the pool that provides a slip-resisting surface of at least 4 inches (10 cm) minimum horizontal width and located at or not more than 12 inches (30 cm) above waterline;
 - ii. Ladders, stairs, or seat ledges;
 - iii. A secured rope or railing placed at or no more than 12 inches (30 cm) above waterline.
2. Rope and float line. A rope and float line shall conform to a through c below.
 - a. In pools where the water depth exceeds 6 feet – 4 inches (193 cm) a wide contrasting color band extending from the waterline tile, down the wall, across the floor, and up the opposing wall to the waterline shall be located at 5 feet (152 cm) of water depth. A rope and float line shall be located 1 foot (30 cm) to 2 feet (61 cm) on the shallow side of that band.
 - b. The rope and float line shall be securely fastened to wall anchors of corrosion-resisting materials and of the type that shall be recessed or have no projection that will constitute a hazard when the line is removed.

- c. The line shall be of sufficient size and strength to offer a good handhold and to support loads normally imposed by users.
3. Depth markers. Depth markers shall conform to a through I below.
- a. Depth of water in feet shall be plainly and conspicuously marked on the vertical pool wall at or above the waterline and on the deck/coping stones around the perimeter of the pool. (See 18.3.7 and 18.3.8.)
 - i. Depth markers shall indicate the actual pool depth within 3 inches (7.6 cm), at normal operating water level when measured 3 feet (91 cm) from the pool wall or at tangent point where the cove radius meets the floor, whichever is deeper.
 - ii. Depth markers on the vertical pool wall shall be positioned to be read from the waterside. Depth markers shall be placed in such a way that they allow as much of the numerical value to be visible above the waterline as possible.
 - iii. Depth markers on the deck shall be within 18 inches (46 cm) of the water edge and positioned to be read while standing on the deck facing the water.
 - b. Horizontal depth markers shall be slip resisting.
 - c. Depth markers shall be installed at the maximum and minimum water depths and at all points of slope change.
 - d. Depth markers shall be installed at intermediate increments of water depth not to exceed 2 feet (61 cm). Depth marker shall be spaced not to exceed 25 feet (762 cm) intervals.
 - e. Depth markers shall be arranged uniformly on both sides and both ends of the pool.
 - f. Depth markers on irregularly shaped swimming pools shall designate depths at all major deviations in shape as well as conform to the forgoing sections.
 - g. Depth markers shall have a 4 inch (10 cm) minimum height. The numbers shall be of contrasting color to the background on which they are applied, and the color shall be of a permanent nature.
 - h. Lettering shall either spell out "feet" or "inches" or abbreviate "Ft." or "In.". In addition, the depth of water may also be displayed in meters. Lettering for meter depth markers may be spelled out "meters" or abbreviated "m".
 - i. Pool depths of 5 feet (152 cm) or less shall display the "No Diving" symbol. The symbol may be placed on the deck at intervals of no more than 25 feet (762 cm). Additional signage shall be in accordance with ANSI Z535 Series of standards for safety signs and color. (See appendix C, safety

4. Lifeguards. VDH. 7-12

Lifeguards, if provided, shall be positioned at station that permits and unobstructed view of the entire pool area under the lifeguard's responsibility. If no lifeguard is on duty, a sign shall be conspicuously posted stating, in clearly legible letters at least four inches high, "WARNING – NO LIFE GUARD ON DUTY. CHILDREN SHOULD NOT USE POOL WITHOUT AND ADULT IN ATTENDANCE."

5. Lifesaving equipment.

- a. The following lifesaving equipment shall be provided at each Tourist establishment swimming pool:

- i. A swimming pool accessory pole, including a body hook, at least 12 feet (366 cm) long;
 - ii. A minimum ¼ inch (6.4mm) diameter throwing rope that is 1.5 times the maximum width of the pool or 50 feet, whichever is less, to which has been firmly attached a ring buoy with an outside diameter of at least 15 inches (38 cm) or similar flotation device; and
 - iii. First aid equipment, including a first aid kit, in an accessible location. The first aid kit shall include, at a minimum, impermeable, unused, disposable gloves and a sufficient supply of materials to stop bleeding and to clean or cover minor cuts and abrasions and meet the OSHA standards for prevention of disease transmission.
- b. A telephone with posted numbers for the nearest available police, fire, emergency access, and or rescue unit, or 911.
- e. If an emergency shutoff switch is provided for the pumps, a notice of the location of the switch shall be posted.

12VAC5-460-380 Food and drink facilities. VDH. 7-12

Food and drink preparation, serving, consumption facilities shall be permitted only within designated areas approved for these purposes.

12VAC5-460-170. Recirculation systems.

~~All swimming pools shall be equipped with a recirculation system consisting of pumps, hair and lint catchers, filters, disinfection equipment, and necessary pipe connections to the inlets and outlets. Adequate provision shall be made for backwashing filters. Recirculation systems shall be designed for an eight hour or less turnover of the swimming pool water.~~

12VAC5-460-180 390. Filter rooms. USBC 2012 could do color of room painting rest USBC delete. 7-12

~~Any room containing the filtration equipment, pumps, and other recirculation system appurtenances shall be finished in a light color and be provided with adequate illumination and ventilation. The floor of the filter room shall be designed to provide adequate drainage. The provision of any facility for discharging filter backwashing water onto the filter floor is strictly prohibited, and adequate provision shall be made for the discharge of backwash water. All of the recirculation equipment in filter rooms shall be installed so that it may easily be operated or repaired. All entrances below ground surface shall be by stairway and vertical door. Adequate headroom shall be provided above all filters. Below-ground filter rooms shall be provided with mechanical ventilation.~~

12VAC5-460-190. Pumps.

~~Pumping equipment shall have sufficient capacity to discharge the volume of water for the required turn-over of the pool against the maximum head in the recirculation system. The pump used for backwashing sand filters shall have sufficient capacity to backwash the unit at the rate of at least 12 gallons per minute per square foot of filter area against the maximum head developed during backwashing.~~

12VAC5-460-200. Hair and lint catchers.

~~Hair and lint catchers shall be installed ahead of the filter pump and be designed and located so that they can easily and simply be dismantled for cleaning and inspection.~~

12VAC5-460-210. Filters.

~~The recirculation system shall be equipped with a filtration system that will filter the entire contents of the swimming pool within eight hours or less at the rate of three gallons or less per~~

~~square foot per minute. In sand filters, the layer of filter sand shall be at least 20 inches in depth, properly supported by uniform layers of clean graded gravel to a minimum depth of 12 inches or supported by porous plates. The filter sand shall have an effective size of between 0.45 and 0.55 millimeters with a uniformity coefficient not greater than 1.7. In anthracite coal filters, the anthracite shall have a depth of at least 24 inches and shall have an effective size between 0.6 and 0.8 millimeters with a uniformity coefficient of not greater than 1.8. Pressure filters shall be equipped with readily accessible air relief valves and access holes large enough to permit inspections, maintenance, and repair work. Each pressure filter system shall be equipped with a pressure gauge at least four inches in diameter on the inlet and outlet to indicate the pressure in pounds per square inch, and a sight glass that can be easily removed for cleaning shall be provided on the waste discharge line. Gravity type filters shall be equipped with loss of head gauges.~~

~~The filtration rate for diatomaceous earth filters and similar equipment may not exceed 1 ½ gallons per square foot of filter area with eight hours turn over of pool volume unless continuous slurry feed is provided, in which case, the rate shall not exceed three gallons per minute per square foot of filter area.~~

~~Arrangements or equipment shall be provided for application of filter aid and proper precoating and cleaning of filter elements. All filters shall be capable of being cleaned or backwashed by use of the washwater pump and the manipulation of valves. In view of the constant change of design of such equipment, it will be necessary to evaluate each system individually. Approval or rejection of systems will be at the discretion of the State Health Commissioner, based upon the need for protecting the health and safety of those using any such pool.~~

12VAC5-460-220 400. Rate of flow indicators. vdh ok. 7-12

Recirculation system shall be equipped with a rate of flow indicator reading in gallons per minute, located so as to indicate both the rate of flow of the effluent from the filter and the rate of backwash in gallons per minute in sand or anthracite coal filters.

12VAC5-460-230 410. Suction cleaners. USBC in icc pools code leave for now 7-12.

Suction cleaners shall be provided. Where the suction cleaner is operated by the recirculating pump, a device shall be provided for throttling the flow from the pool outlet, and the suction cleaner line shall be connected through the hair and lint catcher.

12VAC5-460-240. Chemical feeding equipment.

~~Means shall be provided for regulating the feeding of chemicals into the water in the recirculation system. The installation of mechanically operated, positive, chemical feeders or open type chemical machines is required. The installation of closed type solution pots is prohibited.~~

12VAC5-460-250. Disinfection equipment.

~~All swimming pools shall be provided with approved chlorine feeding equipment. The chlorinating equipment shall be capable of applying a dose up to 6.0 ppm of chlorine at the rate of recirculation. Chlorine gas feeding equipment and chlorine gas cylinders shall be installed in an enclosed space or room separate from the filter room and equipped with a door capable of being locked. When this chlorinator room is tight, it shall be equipped with a forced draft fan exhausting to the outside from the floor level, and a fresh air inlet shall be provided near the ceiling. Forced draft apparatus shall have sufficient capacity to exhaust the contents of the room in at least three minutes. The chlorine gas tanks shall be protected from direct sunlight and fastened in place during storage and use. An approved type gas mask shall be provided where chlorine gas is being utilized. Gas masks shall be located accessible to, but outside of, the chlorinator room.~~

~~Nothing in this section shall be construed as debarring any other method of disinfection or filtration equipment demonstrated to be of at least equal efficiency and approved by the State Health Commissioner.~~

12VAC5-460-260 420. Chemical testing equipment. Vdh 7-12

Each swimming pool shall be provided with satisfactory equipment for the determination of hydrogen-ion concentration (pH) ranging from 6.8 to 8.0. Satisfactory equipment shall also be provided for the determination of residual chlorine content ranging from 0.0 to 1.0.

12VAC5-460-270 430. Operating records. Vdh 7-12

Acceptable records of the operation of the swimming pool shall be maintained. These records shall include pH levels, free chlorine residual, water clarity, cleanliness, and such other things as may be required for the health and safety of the bathers. These records shall be kept on file for a period of one year.

~~12VAC5-460-280. Disinfection.~~

~~The chlorination equipment shall be operated so as to maintain a free chlorine residual content of not less than 0.5 ppm at all points throughout the swimming pool water when there are bathers present.~~

~~12VAC5-460-290 . Alkalinity.~~

~~The hydrogen-ion concentration should be maintained at 7.2 or above.~~

12VAC5-460-300 440. Filtration; water clarity. Vdh 7-12

The filters should be operated 24 hours per day during the season of use of the swimming pool. At all times when the pool is open for use, the water shall be sufficiently clear to permit a disc six inches in diameter, divided into alternate black and white quadrants, when placed on the bottom of the pool at the deepest point, to be clearly visible from the swimming pool deck at all distances up to ten yards in a horizontal direction from the projection of the disc on the swimming pool surface.

Chemicals other than chlorine, sodium or calcium hypochlorite, lime, soda ash, and aluminum sulfate shall not be used to treat swimming pool water without permission.

12VAC5-460-310 450. Filter room placards. Vdh 7-12

A placard shall be prominently displayed showing the following data: (i) size of the swimming pool in feet and volume in gallons; (ii) capacity of the filters in square feet and gallons per minute; (iii) capacity of the pumps in gallons per minute at the appropriate head in feet; (iv) head loss at which the filters should be backwashed; and (v) complete instructions for operating the recirculation and disinfection equipment.

~~12VAC5-460-320. Lifeguards.~~

~~The management of any transient lodging establishment where a swimming pool has been provided for the use of guests shall designate and have on duty a reliable and competent person as a lifeguard and management shall further provide for the use of this lifeguard, such life saving equipment as may be required depending upon the size and depth of the pool.~~

12VAC5-460-330 460. Commissioner approval. Vdh 7-12

For any items not specifically covered in this chapter, the State Health Commissioner is authorized to require that all materials, methods of construction and design features shall be proven to function adequately, effectively and without excessive maintenance and operational difficulties before he grants approval thereof, and such approval shall be based upon the need for protecting the health and safety of those using swimming pools.

It shall be the duty of the applicant to provide such data, tests, or other adequate proof that the device, material, or product will satisfactorily perform the function for which it is intended before such item shall be approved or accepted for tests.

~~12VAC5-460-340. Water supplies, lighting, overflow facilities, inlets and outlets.~~

~~See 12VAC5-460-40 through 12VAC5-460-150.~~

12VAC5-460-350 470. Location and slopes. USBC 2012 leave for now 7-12

Wading pools shall be located so that drainage from surrounding areas will not wash contamination into pools during rainfall. The bottom of wading pools shall slope not less than three inches in 10 feet toward the drain.

~~12VAC5-460-360. Deck area.~~

~~Wading pools shall be entirely surrounded by a deck at least four feet in width. Decks shall be constructed of a permanently impervious material which shall have and retain a finish as smooth as possible that is nonslip to bare feet. The deck shall slope not less than three inches in 10 feet away from the pool edge, and the water on the deck shall be discharged to waste.~~

12VAC5-460-370 480 . Protection. ? vague

Wading pools and wading areas shall be separated from swimming pools by appropriate protectional features.

~~12VAC5-460-380 490. Water circulation systems. USBC 2012 leave for now 7-12~~

A complete recirculation system shall be installed at wading pools which cannot be served adequately by an adjacent swimming pool recirculation system. The recirculation system shall provide a pool volume turn-over rate of once in three hours or less.

An alternate method to the water circulation system is the continuous addition of water properly treated at a rate of flow sufficient to replace all of the water in the wading pool once in three hours or less. The overflow water, with this method, shall be continuously discharged to waste.

~~12VAC5-460-390. Waste discharge.~~

~~See 12VAC5-460-120.~~

Part III
Spray Pools

12VAC5-460-400 500. Water supplies. Leave for now 7-12

Water sprayed into a pool shall be from an approved supply. Spray heads shall be installed so that there will be no possibility of their submergence and, as a result, of clogged drains.

12VAC5-460-410 510. Materials. USBC delete. 7-12

~~Spray pools shall be constructed of permanently impervious material which shall have and retain a finish as smooth as possible that is nonslip to bare feet.~~

12VAC5-460-420 520. Slopes.

Spray pool bottoms shall slope not less than three inches in 10 feet toward the drains.

12VAC5-460-430 530. Drains. USBC 7-12

~~Spray pools shall be equipped at low points with an unvalved drain to waste. The drain shall be of such size and design that water sprayed into the pool will not pond in the pool bottom.~~

12VAC5-460-440 540. Deck areas. Leave and check ICC pool code 7-12.

Spray pools shall be entirely surrounded by a deck at least four feet in width. Decks shall be constructed of a permanently impervious material which shall have and retain a finish as smooth as possible and nonslip to bare feet. The deck shall slope not less than three inches in 10 feet away from the pool edge and the water on the deck discharged to waste.

FORMS (12VAC5-460)

Swimming Pool Operators Weekly Report - #LHS-183.

Swimming Pool Inspection Form - #LHS-182.

Swimming Pool Construction Report - T.E.S. 1505.

Water Test Quality Results.

Certification Statement:

I certify that this regulation is full, true, and correctly dated.

_____ (Signature of certifying official)

Name and title of certifying official: _____

Name of agency: _____

Date: _____

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: State Building Code Technical Review Board Representing: _____

Proposal Information

Code(s) and Section(s): Virginia Construction Code, Section 903.2.8

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section 903.2.8 as shown below:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area, except in the following Group R-2 occupancies when the necessary water pressure or volume, or both, for the system is not available:

Exceptions:

1. Buildings which do not exceed two stories, including basements which are not considered as a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.
2. Buildings where all dwelling units are not more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a two-hour fire barrier is provided between each pair of dwelling units. Each bedroom of a dormitory or boarding house shall be considered a dwelling unit under this exception.

For the purposes of [this code applying Exception 1 of Section 1015.1], buildings constructed under the above exceptions shall be entitled to the same allowances as buildings provided with sprinklers in accordance with Section 903.3.1.1 or 903.3.1.2.

Supporting Statement (including intent, need, and impact of the proposal):

The Review Board issued Interpretation No. 26/90 clarifying that buildings constructed under the exceptions to Section 903.2.8 were considered to be equivalent to buildings protected by a sprinkler system [for the purposes of applying the single exit building provisions]. Under the Review Board's statutory authority, interpretations issued by the Review Board, when deemed appropriate by the Review Board members, are forwarded to the Board of Housing and Community Development as recommendations for future amendments to the code.

Submittal Information

Date Submitted: March 16, 2012





Proposed Text

Action: Amend marina regulations to reflect current state of marina ...

Stage: Proposed

6/19/12 4:57 PM

Part I

Introduction

Article 1

Definitions

12VAC5-570-10. Definitions.

~~As used in these regulations, the~~ The following words and terms hereinafter set forth when used in this chapter shall have the following meanings, respectively, unless the context clearly requires a different meaning. indicates otherwise:

"Board" means the State Board of Health.

"Boat" means any vessel or other watercraft, privately owned or owned by the Commonwealth or any political subdivision thereof, whether moved by oars, paddles, sails, or other power mechanism, inboard or outboard, or any other vessel or structure floating on water in the Commonwealth of Virginia, whether or not capable of self-locomotion, including but not limited to cruisers, cabin cruisers, runabouts, houseboats and barges. Excluded from this definition are commercial, passenger and cargo carrying vessels subject to the Quarantine Regulation of the United States Public Health Service adopted pursuant to Title 42 of the United States Code and ships or vessels of the U.S. Government and boats which are tenders to larger boats moored or stored at the same facility.

"Boating access facility" means any installation operating under public or private ownership that provides a boat launching ramp and has 50 or more parking spaces for boat trailers.

"Certificate" means a written approval from the Commissioner or his designated representative indicating that plans for ~~sanitary facilities and sewage~~ sewerage facilities, sewerage system and treatment works meet or satisfy the minimum requirements of this chapter and § 32.1-246, of the Code of Virginia.

"Commissioner" means the State Health Commissioner, ~~whose duties are prescribed in § 32.1-19 of the Code of Virginia.~~

"Department" means State Health Department.

"Division" means the Division of ~~Wastewater Engineering, Onsite Sewage and Water Services, Environmental Engineering, and Marina Programs, Office of Environmental Health Services, Department of State Health~~ Department or its administrative successor.

"Dry storage" means a boat storage, including boatels, valet storage, pigeon hole storage, stackominiums or parking space, where boats rest on racks or trailers located on land, whether covered or uncovered, at a marina or other place(s) where boats are moored, ~~for the purpose of storing boats on land between use.~~

"Expanded" means any change to a regulated facility that results in an increase in sewage volume or strength due to the addition of slips, dry storage spaces, boat trailer parking spaces or ancillary operations.

"Live-aboard slip" means any slip where a boat is moored and used principally as a residence or a place of business. Charter and commercial fishing boats are not included unless used as a residence.

"Local health department" means the branch of the State Health Department, established in accordance with §32.1-30 of the Code of Virginia, that has jurisdiction in the city or county where the regulated facility is located.

"Marina" means any installation operating, under public or private ownership, which provides dockage or moorage for boats, ~~other than (exclusive of paddle or rowboats)~~ and provides, through sale, rental, ~~or fee, or free~~ basis, any equipment, supply, or service, including (fuel, electricity, or water) for the convenience of the public or its leasee lessee, renters, or users of the facilities.

~~"Marine sanitation device" means any equipment, piping, holding tanks, and appurtenances such as holding tanks for installation onboard a boat which is designed to receive, retain, treat, or discharge sewage, and any process to treat such sewage.~~

"No Discharge Zone" means an area where a state has received an affirmative determination from the U.S. Environmental Protection Agency that there are adequate facilities for the removal of sewage from vessels (holding tank pump-out facilities) in accordance with §312(f)(3) of the Clean Water Act (33 U.S.C. 1251 et seq.), and where federal approval has been received allowing a complete prohibition of all treated or untreated discharges of sewage from all vessels.

"Office" means the Office of Environmental Health Services.

~~"Other place(s) where boats are moored" means any installation operating under public or private ownership, which provides dockage, or moorage or mooring for boats, other than (exclusive of paddle or rowboats) either on a free, rental or fee basis or for the convenience of the public boater.~~

"Owner" means the Commonwealth or any of its political subdivisions and any public or private institution, corporation, association, firm or company organized or existing under the laws of this or any other state ~~or county~~, or any person or group of persons acting individually or as a group who owns or proposes to own a marina, other place(s) where boats are moored or boating access facility.

~~"Pump-out facilities facility" means any device, equipment or method of for removing sewage from a marine sanitation device, and conveying such sewage to a sewerage system or treatment works. Also, it shall include including any portable, movable, or permanent holding tanks, either portable, movable or permanently installed, and any sewage treatment method or disposable equipment used to treat, or ultimately dispose of, sewage removed from boats.~~

~~"Sanitary Sewerage facilities facility" means bathrooms, toilets, closets and other enclosures, including portable toilets, where commodes, stools, water closets, lavatories, showers, urinals, sinks, or other such plumbing fixtures are installed.~~

~~"Seasonal-slips" means any slip which is used, rented, leased, or otherwise made available for mooring or docking of boats during the normal boating season, usually from April through September, or for any period greater than 30 days.~~

~~"Sewage" means the spent water or wastewater containing human excrement coming from toilets, bathrooms, commodes and holding tanks, water-carried and non-water-carried human excrement, kitchen, laundry, shower, bath or lavatory wastes, separately or together with such underground, surface, storm and other water and liquid industrial wastes as may be present from residences, buildings, vehicles, boats, industrial establishments or other places.~~

"Sewage dump station" means a facility specifically designed to receive waste from portable sewage containers carried on boats and conveys such sewage to a sewerage system or a treatment works.

"Sewage treatment or disposal systems" means device, process or plant designed to treat sewage and remove solids and other objectionable constituents which will permit the discharge to another approved system, or an approved discharge to state waters or disposal through an approved subsurface drainfield or other acceptable method, such as incineration.

"Sewerage facilities system" means entire sewage collection and disposal system including commodes, toilets, lavatories, showers, sinks and all other plumbing fixtures which are connected to a collection system consisting of sewer pipe, conduit, holding tanks, pumps and all appurtenances, including the sewage treatment or disposal system, pipelines or conduits, pump stations and force mains and all other construction, devices and appliances used for the collection and conveyance of sewage to a treatment works or point of ultimate disposal.

"Slip" means a berth or space where a boat may be secured to a fixed or floating structure, including a dock, finger pier, boat lift, or mooring buoy.

"Transient slips" means temporary docking or mooring space which may be used for short periods of time, including lodging overnight, days, or weeks, but less than 30 days.

"Treatment works" means any device or system used in the storage, treatment, disposal or reclamation of sewage or combinations of sewage and industrial wastes, including but not limited to pumping, power and other equipment and appurtenances, septic tanks, and any works, including land, that are or will be (i) an integral part of the treatment process or (ii) used for ultimate disposal of residues or effluents resulting from such treatment.

"VMRC" means the Virginia Marine Resources Commission.

Article 2

General Information

12VAC5-570-20. Authority, for regulations.

Sections 32.1-12 and 32.1-246 of the Code of Virginia provides that the State Board of Health is empowered and directed to promulgate all necessary rules and regulations establishing minimum requirements for adequate sewerage facilities at marinas and other place(s) where boats are moored according to the number of slips and persons such marinas and other place(s) where boats are moored are designed to accommodate, as to adequacy of sewerage facilities at marinas and other places where boats are moored. These facilities should be sufficient to serve the number of boat slips or persons such marinas and places are designed to accommodate, regardless of whether such establishments serve food. Section 32.1-164 provides that the Board's regulations may require a sewerage system or treatment works for such residences, buildings, structures and other places designed for human occupancy as the Board may prescribe.

12VAC5-570-30. Purpose, of regulations.

This chapter The Board has been promulgated this chapter by the State Board of Health to:

4-A. Protect public health and water quality by Ensure ensuring that adequate sanitary sewerage facilities, and pump-out facilities, sewage dump stations, and sewerage systems as defined in 12VAC5-570-10 and required by 12VAC5-570-130 of this chapter, are provided at all marinas, and other place(s) where boats are moored,; and boating access facilities.

~~2. B. Establish minimum requirements as to the adequacy of sewerage facilities and sewerage systems at all marinas, and other place(s) where boats are moored; and boating access facilities.~~

~~C. Protect public health and the environment by ensuring that all sewage generated from all regulated facilities is conveyed to an approved sewerage system or treatment works.~~

~~3D. Guide the State Board Commissioner or his designee of Health in its his determination of the adequacy of the sewerage systems and sewerage facilities to serve serving all marinas, and other place(s) where boats are moored; and boating access facilities~~

~~E. Guide the State Board Commissioner or his designee of Health in its his approval evaluation of plans and other data and in the issuance of a certificate as to the adequacy of sanitary and sewerage facilities and sewerage systems; .~~

~~5F. Notify the Marine Resources Commission that a certificate has been issued; and~~

~~6G. Assist the owner or his authorized engineer in the preparation of an application and supporting data, as may be required. (See 12VAC5-570-70).~~

12VAC5-570-40. Administration of regulations.

These regulations are administered by the following parties:

~~1. The State Board of Health has responsibility for promulgating, amending, and repealing regulations which ensure minimum requirements as to adequacy of sewerage facilities at marinas and other places where boats are moored.~~

~~2.A. The State Health Commissioner Commissioner is the chief executive officer of the State Department of Health. The Commissioner has the authority to act for the Board when it is not in session. The Commissioner may delegate his powers under this chapter with the exception of his power to issue variances under 12VAC5-570-90.~~

~~3.B. The Division of Wastewater Engineering Division is designated as the primary reviewing agent of the board Commissioner for the purpose of administering these regulations this chapter. # Upon receipt of the application from the local health department, the Division examines and passes upon grants or denies the application the technical aspects of all applications, plans and specifications for sewerage facilities to serve marinas, and other place(s) where boats are moored, and boating access facilities. # The Division issues all certificates attesting to the adequacy of the sewerage facilities and notifies the Marine Resources Commission VMRC when a certificate is issued or denied.~~

~~4. The Deputy Commissioner for Community Health Services directs and supervises the activities of the local health departments in the administration of assigned duties and responsibilities under the chapter.~~

~~5C. The local health department in each jurisdiction, city, town or county in which there exists, or is proposed, a marina or other place where boats are moored shall (i) be responsible for the processing of all applications submitted by owners, (ii) and inspecting sites and facilities provided, for compliance with this chapter, (iii) issue such permits as required by law, rules or regulations for sewerage facilities and, (iv) lacking in authority to issue a permit, will process such applications in accordance with the policies and procedures of the department. The local health department shall conduct a surveillance program and enforce the provisions of this chapter to ensure proper sanitation and cleanliness of the facilities provided.~~

~~6. The Office of Water Programs of the Department of Health of the Commonwealth of Virginia is responsible for the review and approval of sewage~~

~~treatment works where there is a discharge to state waters, in accordance with the chapter, policies and procedures of the Health Department and the State Water Control Law, §§ 62.1-44.2 through 62.1-44.34 of the Code of Virginia.~~

12VAC5-570-50. Applicability. Application of regulations to marinas and other places where boats are moored.

~~A. Marinas or other places where boats are moored which are not in compliance with the Rules and Regulations of the Board of Health Governing Sanitary and Sewerage Facilities at Marinas and Other Places Where Boats Are Moored which became effective November 15, 1975 [repealed], shall comply with this chapter. Marinas, other place(s) where boats are moored, and boating access facilities in operation prior to the effective date of this chapter shall be subject to the regulations in effect at the time the marina, other place(s) where boats are moored or boating access facility was permitted unless such marina, other place(s) where boats are moored or boating access facility is expanded after the effective date of this chapter.~~

~~B. This chapter shall apply to All all marinas, other place(s) where boats are moored, and boating access facilities. planned or new marinas or other places where boats are moored which do not exist placed into operation on or after the effective date of this regulation. shall comply with all provisions of this chapter prior to commencing operation.~~

~~C. All sanitary or sewerage facilities and sewerage systems shall conform to the requirements of this chapter when the marina, or other place(s) where boats are moored or boating access facility that is served by the sewerage facilities and sewerage systems is expanded, altered or modified.~~

~~D. This chapter shall apply to sewerage facilities and sewerage systems serving marinas, other place(s) where boats are moored or boating access facilities and located on property owned by the marina, other place(s) where boats are moored or boating access facility owner. Sewerage systems or treatment works installed or proposed to be installed on property owned by someone other than the marina, other place(s) where boats are moored or boating access facility owner are regulated by Chapter 6 of Title 32.1 of the Code of Virginia or Title 62.1 of the Code of Virginia, as applicable.~~

Article 3
Procedure

12VAC5-570-60. Certification general. Permits and Certificate.

~~No owner shall construct operate a marina, or other place(s) where boats are moored or a boating access facility unless he has obtained a construction permit in accordance with complies with the provisions of §§ 32.1-12 and 32.1-246 of the Code of Virginia and this chapter, these regulations. No owner shall operate a marina, other place(s) where boats are moored or boating access facility until the local health department has inspected and approved construction and has issued a certificate to operate. Owners shall have in their possession obtain a permit from the Marine Resources Commission VMRC to operate a marina, or other place(s) where boats are moored, or boating access facility when so required by § 62.1-3, of the Code of Virginia. Where state-owned bottom lands are involved, the owner shall submit a plan preliminary design and receive approved approval by the Department shall be issued Division prior to construction and the issuance of a certificate to operate.~~

12VAC5-570-70. Application for certificate. construction permit.

~~Any owner, or his duly authorized representative, may shall make application apply for a construction permit certificate of approval of sanitary or sewerage~~

facilities by ~~applying~~ submitting an application to the local health department in the jurisdiction where the proposed marina, ~~or other place(s) where boats are moored,~~ or boating access facility is to be located. The application shall be made on a form approved by the Division ~~supplied by the local health department~~. The application shall consist of the following:

- ~~1. A.~~ completed application form which shall set forth the essential Essential data to determine the sewerage facilities and sewerage system necessary to serve the proposed installation;
- ~~2. B.~~ Maps, plans and specifications of the sanitary sewerage facilities and sewerage facilities system describing how and what the type of facilities that will be provided, and how the facilities will provide for the safe and sanitary disposal of all sewage generated at the facility. The preliminary design plans shall establish with the location of the sanitary sewerage facilities and sewerage system in relation to other facilities they are intended to serve;
- ~~3. C.~~ A description of the proposed or existing offsite sewerage system or treatment works used for the ultimate method of sewage treatment and disposal; of sewage. The applicant shall apply for and obtain approval of new the offsite sewerage systems or treatment works or disposal system and demonstrate that the existing sewerage systems or treatment works are approved and in accordance with this chapter, must be applied for and obtained under other sections of the Code of Virginia and other regulations; and
- ~~4. D.~~ Any other data as may be pertinent to show the adequacy of the sanitary or sewerage facilities and sewerage system to be provided.

E. An application pursuant to this section shall contain sufficient detail and clarity necessary to demonstrate that the sewerage facility and sewerage system meet all the applicable requirements of this chapter.

12VAC5-570-80. Receipt of data application.

~~A. Upon receipt of the data set forth in 12VAC5-570-70 in sufficient detail and clarity so as to show that the sewerage facilities meet requirements of this chapter, a plan approval or disapproval will be issued by the Department of Health.~~

~~A. Construction.~~ Upon completion of construction of the sanitary sewerage facilities and sewerage system facilities at marinas, and other place(s) where boats are moored, or boating access facility, the owner of the facility, or his duly authorized representative, shall notify the local health department so that it may inspect the construction. ~~A certificate to operate shall be issued by the Health Department when~~ When it the Division, in consultation with the local health department, has been determined that construction is in compliance with the approved plan, it shall issue a certificate.

~~B. Operation.~~ All marinas and other places where boats are moored shall hold a valid certificate to operate in the Commonwealth of Virginia.

B. The owner shall post the certificate in a place where it is readily observable by members of the public who transact business with the facility.

12VAC5-570-90. Variances.

A. The commissioner Commissioner may grant a variance to any requirement of this chapter if, after investigation, it is the Commissioner determinesd that the hardship imposed upon the owner or the public by compliance with this chapter outweighs the benefits that the chapter confers, and that granting a variance will not result in a ~~or that there is no~~ potential or actual public health hazard.

~~AB. Effect of variance.~~ A variance is a conditional waiver of a specific regulation which is granted to a an owner of a marina, other place(s) where boats are

~~moored or boating access facility, particular or designated marina or other place where boats are moored. Variances are not it is nontransferrable transferrable between owners and any variance it shall be attached to the certificate of the marina, or other place(s) where boats are moored, or boating access facility to which it was granted. The variance is a condition of the certificate which is revoked if the certificate is revoked.~~

~~BC. Application for a variance. Any owner of a marina, or other place(s) where boats are moored, or boating access facility may apply in writing for a variance. This application shall be submitted to the local health department in the jurisdiction in which the marina, or other place(s) where boats are moored, or boating access facility is located. This application shall include:~~

- ~~1. A citation to referencing the specific requirements of this chapter from which a variance is requested; and a statement describing the hardship(s) imposed by the specific requirements of this chapter;~~
- ~~2. A statement of reasons why the public health and environment would not be detrimentally affected if a variance is granted, and a list of suggested measures that would be implemented to prevent any potential detrimental impacts; and~~
- ~~3. Facts supporting the need and justification for the variance. ;~~
- ~~4. The nature and duration of the variance request;~~
- ~~5. Other information, if any, believed by the applicant to be pertinent; and~~
- ~~6. Such other information as the Division, local health department or the Commissioner may require.~~

~~D. If the Commissioner denies any request for a variance, such denial shall be in writing and shall state the reasons for the denial.~~

12VAC5-570-100. ~~Suspension or Rrevocation of a certificate.~~

~~Either by emergency order under the authority of Code § 32.1-13 or following an opportunity for an informal fact-finding proceeding as provided by Code § 2.2-4019, The the Board Commissioner or his designee may revoke or suspend a certificate for failure to construct and operate the sewerage facilities and sewerage facilities system in accordance with the conditions of the application and certificate issued or for any violation of this chapter.~~

12VAC5-570-110. ~~Administration Applicability of the Administrative Process Act. appeals.~~

~~Any applicant or certificate holder who is aggrieved by an adverse decision of the commissioner may appeal in writing within 30 days after the notification of the adverse decision and request a fair hearing. Within 30 days of receipt of notification of appeal, the commissioner shall set a date and place for such hearing. Not later than 30 days following the hearing, the commissioner shall issue a final order with respect to the disposition of the appeal. Such hearing, notice and proceedings shall be conducted pursuant to the The Administrative Process Act, Chapter 1.1:1 (§ 9-6.14:1 et seq.) of Title 9 of the Code of Virginia. (§ 2.2-4000 et seq. of the Code of Virginia) shall govern the decision of cases under this chapter.~~

Part II

Required Sewerage Facilities and Sewerage Systems for Marinas, and Other Place(s) Where Boats are Moored, and Boating Access Facilities and Their Operation

12VAC5-570-120. General.

A. All owners of marinas, or other place(s) where boats are moored, and boating access facilities shall provide the minimum number of sanitary sewerage facilities required by this chapter for their patrons. These Owners shall maintain their facilities shall be maintained in a clean and sanitary operable condition. They Owners shall equip their facilities shall be equipped with toilet tissue, lights where electricity is available and soap and towels where handwashing facilities are required. These Owners shall make their facilities shall be available during normal business hours to patrons and users of these facilities at all times during the normal boating season for that facility.

B. Marinas which are located within 1,000 feet of the shore end of the pier that are operated as part of residential developments, overnight lodging facilities, restaurants or commercial establishments, which are located within 1,000 feet of the shore end of the pier, are exempted from providing separate sanitary sewerage facilities, as long as the sanitary sewerage facilities at the residence, lodging establishment, restaurant or commercial establishment are made available to all users of the marina. This The exemption set forth in this subsection does not apply to:

(i) marinas 1. Marinas associated with restaurants or commercial establishments which that allow overnight occupancy of boats; and (ii) marinas

2. Marinas associated with overnight lodging establishments where overnight occupancy of boats is permitted by persons not registered at the overnight lodging establishment.

C. Exempt from the requirements of subsection A are other Other place(s) where boats are moored which and boating access facilities are exempt from the requirements of subsection A, provided that the other place(s) where boats are moored or boating access facility:

1. serve Serves residents of homes (houses, condominiums, apartments or mobile homes), their bona fide house guests, or registered guests of tourist establishments; which and

2. provide Provides adequate sanitary sewerage facilities that are located within 1,000 feet of the shore end of the pier.

D. In order to qualify for an exemption under subsections B or C of this section, the owner of such a marinas, or other place(s) where boats are moored, or a boating access facility shall provide to the department Division a signed, notarized statement that all conditions set forth in the aforementioned sections will be complied with by users of the facilities.

12VAC5-570-130. Location.

Adequate Owners shall conveniently locate their sewerage sanitary facilities shall be conveniently located within 500 feet walking distance from the shore end of any dock they are intended to serve. On a case by case basis the Division may approve a greater or within a reasonable distance if under unusual circumstances such as topography or resource protection areas prevent compliance with this requirement. as determined by the division. If The Division may be necessary require the owner to provide sewerage sanitary facilities in more than one location in order to meet the needs of the particular site, developed. In addition, the Division may require additional fixtures, beyond the minimum number specified in Table 1, if it determines that additional fixtures are necessary to accommodate the site layout and use of the facility marina, other place(s) where boats are moored, or boating access facility.

12VAC5-570-140. Availability, and marking of sanitary facilities.

Owners shall locate The the sewerage sanitary facilities shall be so located so that they are available and readily reasonably accessible to all users. They shall be appropriately marked with signs readily identifiable to all personnel who might desire to use the facilities. The location and use of all sewerage facilities shall be clearly indicated by appropriate signage.

12VAC5-570-150. Sewerage facilities for marinas. Marinas.

A. Minimum The minimum number of sewerage fixtures to be provided in sanitary facilities. It at marinas is found shall be understood that in Table 1.

B. many instances the site layout and the use of the marina may require more fixtures than are shown in the table below. If the board, after observation and study, determines that additional fixtures or buildings housing sanitary facilities are necessary, the owner shall provide the additional fixtures so determined. Where dry storage space is provided, each dry storage space is equivalent to one-third (1/3) of a seasonal slip. The minimum number of fixtures required is contained in Table No. 1 and is based upon the total number of seasonal slips or their equivalent. Separate sewerage facilities for male and female personnel shall employees may be provided in a structure or structures but shall not be counted toward the minimum number of fixtures required to accommodate users of the marina.

Table # 1

Number of Seasonal Slips	Commodes		Urinals	Lavatories		Showers	
	Male	Female	Male	Male	Female	Male	Female
0 1 - 49	1	1	0	1	1	0	0
50 - 99	1	2	1	1	1	0	0
100 - 149	2	3	1	2	2	1	1
150 - 199	2	4	2	3	3	2	2
200 - 249	3	5	2	4	4	2	2

Table 1

Number of Slips	SEWERAGE FIXTURES						
	Commodes		Additional Urinal or Commode	Lavatories		Showers	
	Male	Female		Male	Female	Male	Female
1-24	1		0	1		1	
25 - 49	1	2	1	2	2	1	1
50 - 99	2	3	1	2	2	1	1
100 - 149	3	4	1	3	3	2	2
150 - 199	3	5	2	4	4	2	2
200 - 249	4	6	2	5	5	3	3

~~C. When the number of seasonal slips exceeds those above on prescribed by Table No. 1, the owner shall provide additional fixtures, shall be provided. The owner shall provide One commode, lavatory and shower will be provided for each sex gender for each 100 additional seasonal slips. A urinal may be substituted for a commode when the number of seasonal slips exceeds 100 of the Table No. 1 values. Showers are not required for dry storage boat usage.~~

~~B. Transient slip. When transient slips are available additional sanitary facilities shall be provided. Table No. 2 below shows the minimum number of additional fixtures required. These fixtures may be included in a structure or structures with these fixtures provided for the seasonal slip, provided the accessibility and convenience standards of 12VAC5-570-130 and 12VAC5-570-140 of this chapter are met.~~

Table # 2

Number of Transient Slips	Commodes		Urinals	Lavatories		Showers	
	Male	Female	Male	Male	Female	Male	Female
0 1-24	1						
25-49	1	2	1	2	2	2	2
50-74	2	3	1	2	2	2	2
75-100	2	4	2	3	3	3	3

~~For each 24 or fraction thereof in excess of those shown in Table No. 2 above, one commode, lavatory, and shower shall be provided for each sex. In addition, one urinal shall be provided for each 50 or fraction thereof transient slips in excess of the number shown in Table No. 2.~~

12VAC5-570-160. Sewerage Sanitary facilities at other place(s) where boats are moored, and boating access facilities. §

A. Sewerage facilities are required at other place(s) where boats are moored and boating access facilities in accordance with this section.

B. Where piped potable water is available, sewerage sanitary facilities for other place(s) where boats are moored shall consist of a minimum of one commode, and one lavatory, and one shower for females and one commode and one lavatory for males for each gender, for each 100 seasonal slips, or fraction thereof and each 50 transient slips or fraction thereof.

C. Requirements for dry storage boat usage shall be are identical to those specified in 12VAC5-570-150 for marinas.

D. Where piped potable water is not available, Sanitary sewerage facilities for other place(s) where boats are moored may consist of privies, where piped water is not available.

E. Sewerage facilities at boating access facilities shall consist of at least one privy or portable toilet and shall be sufficient in number to accommodate facility usage.

F. Walking distance to these facilities shall comply with 12VAC5-570-130.

12VAC5-570-170. Sewage treatment.

A. Public or municipal sewerage systems and sewage treatment works facilities shall should be used if there is reasonable access to sewers. When such municipal means of disposal is are not available, the owner shall have designed and installed an approved sewerage system or treatment works, method of

~~sewage treatment. An approved sewerage system or treatment works is (1) a system for which a certificate to operate has been issued jointly by the Department and the Department of Environmental Quality, (2) a system approved by the Department of Environmental Quality in accordance with Title 62.1 of the Code of Virginia, or (3) a system approved by the Commissioner in accordance with Title 32.1 of the Code of Virginia. Approved methods of sewage treatment are set forth in the Sewerage Regulations (1977) (12VAC5-580-10 et seq.) or the Sewage Handling and Disposal Regulations (1982, as amended). If permanent water conservation devices are provided, the sewage flow requirements specified in subsections A and B of this section may be reduced upon written approval of the division.~~

~~B.A. The following shall be used to determine the amount of sewage flow. It is assumed that The sewage design flow for each seasonal slip or dry storage space represents two persons. At marinas providing toilet facilities only, the flow figure shall be 40 25 gallons per person slip per day. At marinas providing toilet and shower facilities, the flow figure shall be 16 gallons per person per day except at marinas with only seasonal slips, where the flow figure shall be 40 gallons per person per day for the first 99 slips, regardless of whether showers are available, and 16 gallons per person per day for all slips above the 99 slips. Where dry storage is provided, each dry storage space shall be equivalent to one-third (1/3) of a slip. For dry storage facilities the sewage flow shall be calculated using one-third the number of dry storage spaces. The sewage design flow for each live-aboard slip shall be 50 gallons per slip per day. When a marina or other place(s) where boats are moored is constructed in conjunction with another structure or facility, the sewage design flows prescribed in this section shall be added to the sewage design flow governing the associated structure or facility.~~

~~C. In addition, for For a marinas or other place(s) where boats are moored which have that has a boat launching ramp and provide boat trailer parking spaces only while the boat is in use, boating access facility, the design sewage flow shall be increased by 10 gallons per day per boat trailer parking space.~~

~~D. The Division may approve a reduction in the sewage flow requirements specified in subsection B if the owner provides documented flow data sufficient to justify the reduction.~~

~~B. Where restaurants or motels are operated in connection with a marina or place where boats are moored the following shall be used as a basis for determining the amount of sewage flow:~~

~~Motels—65 gallons per person per day or a minimum of 130 gallons per room per day.~~

~~Restaurant—50 to 180 gallons per seat per day. Each installation will be evaluated according to conditions.~~

~~C. The occupancy level of boats used for design of sewage treatment or disposal facilities will be those levels listed in 12VAC5-570-170 A. It is recognized that the type of activity and utilization of marina or other places where boats are moored varies and, therefore, additional facilities to provide capacity up to maximum may be required if the need arises. The local health director serving the area in which the marina is located shall make such determination.~~

12VAC5-570-180. Pump-out.

~~A. Owners of Other other place(s) where boats are moored which allow overnight docking or mooring of boats and owners of all marinas, regardless of size or number of boat moorings slips, shall provide pump-out facilities for pumping or removing sewage from boats. These pump-out facilities shall include all the equipment, structures and treatment or disposal facilities necessary to ultimately discharge or dispose of this boat sewage in an efficient and sanitary manner~~

without causing an actual or potential public health hazard. Exempt from this requirement are marinas and other place(s) where boats are moored which do not have live-aboard slips or allow boats with an marine sanitation device installed toilet with a discharge overboard or a sewage holding tank to use any of the services provided, including moorage, except in an emergency. In order to qualify for this exemption, the owner of such marina or other place(s) where boats are moored shall provide the Department with a signed notarized statement indicating that there are no live-aboard slips and that boats with marine sanitation devices installed toilets with overboard discharges or sewage holding tanks shall not be permitted to use the marina or other places facilities facility. except in an emergency.

A. B. Availability and operation. Where pump-out facilities are required, the owner shall install, maintain in good operating condition and provide pump-out during normal working hours to users of the marina or other places where boats are moored except in those cases where adequate facilities are provided in accordance with subsection B of this section, then, the normal working hours requirement will apply to the facility using the agreement, as well as the facility with the alternate pump-out service. The owner shall make sewage pump-out facilities available to all users of the marina or other place(s) where boats are moored during normal operating hours. The owner shall maintain the pump-out equipment in serviceable condition and shall keep the equipment located in an area convenient for utilization.

C. The owner shall use placards or signs to identify the sewage pump-out location and use restrictions.

B. D. Alternate pump-out service. Marinas and other place(s) where boats are moored which provide less fewer than 50 seasonal (or transient) slips for boats of 26 feet or more in length and less than 20 seasonal (or transient) slips for boats of 40 feet or more in length may be exempted from the requirement to install pump-out facilities, unless such marinas and or other place(s) where boats are moored is located in a No Discharge Zone. Such exemption will shall be granted by the Director of the Division whenever alternate pump-out service is provided at a nearby marina or other place(s) where boats are moored, and is as evidenced by an agreement signed and notarized by both parties in accordance with the requirements of this section, and filed with the Division. The Division shall only approve Such such alternate pump-out service will only be approved by the division when in accordance with the following criteria are met:

1. That the The alternate pump-out service will shall not require more than 20 minutes to complete from the time a boater has the boat ready to receive the service and has previously requested to have the boat sewage holding tank marine sanitation device pumped. The pump-out service for holding tanks of 50-gallon capacity or more (sewage holding) may exceed twenty 20 minutes;
2. That the The alternate pump-out service shall be located within three 3 nautical miles, as measured along the water route, of the exempt facility using the agreement unless the alternate pump-out service is located along the normal travel route to open water, in which case the exempt facility using the agreement shall be within five 5 nautical miles of the alternate pump-out service;
3. That the The alternate pump-out service capacity is shall be sufficient to handle the demand for pump-out service, in accordance with subsection C of this section, that is expected for all of the marinas or other place(s) where boats are moored entering into the above-mentioned agreement;
4. That a notice The owner of the exempt facility shall post in a conspicuous location appropriate signage that specifies the location of the alternate pump-out service and the associated charge for its use; shall be posted in a conspicuous

~~location, at the marina or other place where boats are moored not installing pump-out service, that specifies the location of the alternate pump-out service;~~

5. The terms of the agreement shall provide that:

a. ~~That the~~ The alternate pump-out service ~~will~~ shall be available to all boats moored at each facility and ~~it will state that the alternate pump-out facility will furnish pump-out services to anybody~~ boaters referred to it by the exempt facility establishment ~~using the agreement to provide pump-out service, as specified by this chapter; and~~

b. ~~That the~~ The agreement ~~will~~ shall be valid for one year and will be automatically renewable on the anniversary date, unless either party gives at least a 60-day termination notice to the other and to the Director of the ~~division~~ Division prior to the renewal date.

6. If a termination notice is issued to a an exempt facility ~~using an agreement to provide alternate pump-out service, in accordance with 42VAC5-570-180-B~~ this subsection, then that facility shall either provide pump-out service or obtain a new written agreement, in accordance with ~~42VAC5-570-180-B~~ this subsection, by the effective date of the termination of alternate pump-out service.

~~G. E. Minimum design criteria for pump-out facilities. The purpose of these minimum design criteria is to provide the owner and the Department of Health~~ Department with acceptable methods for pumping, storing, and conveying and treatment of the contents from boat holding tanks. marine sanitation devices. ~~The owner~~ A proposed pump-out facility shall meet the following minimum design criteria: shall furnish the following information for each proposed pump-out facility:

1. ~~Pumping equipment. pump~~ Pump equipment may be fixed or portable; however, this equipment shall be ~~conveniently located for usage and~~ clearly identified or placarded by signs or other notices, indicating any fees, restrictions or other operating instructions, as necessary. A minimum pump capacity of 10 gallons per minute (gpm) is acceptable at the operating head required to transport the flow to the proper collection or treatment location with such residual head as may be required; however, at marinas with 51 or more slips, greater pumping capacity may be required. ~~To prevent clogging, pumps~~ Pumps shall be of a macerator type ~~or the pumps shall be able to pass a 2-inch spherical solid. have sufficient size suction and discharge openings to prevent clogging.~~ Manually operated pumps are not permitted acceptable at marinas and other place(s) where boats are moored that offer fewer than 26 slips. Pump data from the manufacturer shall include:

a. ~~The type of pump (diaphragm positive displacement, or centrifugal, vacuum, macerator, etc. and power);~~

b. ~~Rated capacity (gpm, hp. and head); Pump power source (electric motor, gasoline engine, etc.) and output (HP);~~

c. ~~Motor type (electric or gas); and Pump capacity, including a performance curve;~~

d. ~~Suction and discharge opening size. Pump solids-handling ability; and~~

e. ~~A schematic showing relevant pump dimensions, such as height, size and location of suction and discharge openings, etc.~~

2. ~~Location schematic. If fixed pump-out equipment is proposed, a schematic of the location with elevations for a, b, c, d and e, as described below, shall be included, or if portable pump-out equipment is proposed, a schematic shall indicate elevations for subsections a, c, f and g, as described below: A schematic of the proposed facilities shall be provided and include the following, minimum information:~~

a. Mean low water elevation; level;

- b. Suction hose diameter, length, and highest elevation; ~~Elevation of dock;~~
- c. Pump elevation; ~~Greatest elevation of suction center line of pump;~~
- d. Discharge hose/pipe diameter(s), length(s), and highest elevation; ~~Elevation of discharge point;~~
- e. Discharge point elevation; ~~Highest point in discharge line;~~
- f. Type of dock (floating or stationary); ~~and~~
- g. Greatest elevation of any dock; ~~and~~
- h. Distance between pump-out location and slips.

All elevations shall be measured with respect to mean low water. If the elevation of mean low water is not known, assume it to be zero.

3. ~~Fittings and hoses (piping) — fittings~~ This subdivision sets forth the minimum design criteria for fittings and hoses (piping) which are used in the operation of a pump-out facility shall meet the following:

a. Suction hoses shall meet the following criteria:-

- (1) A friction nozzle (right angle preferred) or wand-type attachment is to be provided on the end of the suction hose. Adapters shall be provided to fit any discharge connection from 1.25 to 4 2 inches in diameter.
- (2) A check valve shall be provided on the suction hose at the nozzle.
- (3) The hose shall be made of flexible, heavy-duty material that will be noncollapsing and nonkinking. The length of this line shall be determined on an individual case basis by the Division.
- (4) If the suction line is to be installed in such a manner that sewage would discharge from the line when the pump is removed for service, a gate full port ball valve shall be provided on the pump end of the suction line.

b. Discharge hose and piping- shall meet the following criteria:

- (1) The discharge hose or piping shall be equipped with watertight, permanent or positive locking type fittings and connections.
- (2) Where flexible discharge hose is used, the hose shall be made of heavy-duty material and be nonkinking and noncollapsing.

c. Discharge lines shall meet the following criteria:-

- (1) A gate full port ball valve shall be provided on the discharge line at the pump;
- (2) Suitable connections on the end of the discharge line shall be provided to prevent it from ~~coming loose~~ dislodging during discharge; all nozzles and fittings are to be positive locking, male and female.
- (3) The discharge line ~~must~~ shall not be subject to freezing or leaking into the water course.
- (4) Sewer lines on piers shall be located below water distribution lines. Water and sewer line separation and sewer line, and water source separation requirements are set forth in the Waterworks Regulations (~~12VAC5-590-10 et seq.~~) (12VAC5-590) and the Sewage Handling and Disposal Regulations (~~12VAC5-640-10 et seq.~~) (12VAC5-610-20 et seq.).
- (5) The discharge line connection to the pump-out receiving facility shall be fixed in place in such a manner as to prevent it from ~~coming loose~~ dislodging during discharge.

d. ~~Rinse equipment.~~ Pump-out facilities shall include equipment for rinsing the boats' holding tanks. associated with marine sanitation devices. Where potable water will be used for rinsing the holding tank, a backflow prevention device shall be installed on the water service line. A minimum of a hose bib type vacuum breaker shall be provided.

4. ~~Other devices or methods of removal.~~ Other devices or methods of removal of contents from ~~boat holding tanks~~ marine sanitation devices may be approved by the Commissioner Division on an individual case basis.

5. ~~Onshore facilities.~~ Contents from boat holding tanks shall be discharged to (i) a public wastewater collection system in which sewage is conveyed to an approved treatment facility; (ii) a holding tank whereby sewage may be stored until it is taken in an approved manner to an approved treatment facility; or (iii) directly to an approved sewage treatment facility.

a. ~~For discharge to a public wastewater collection system, the following will be required: The owner of the marina or other place where boats are moored shall submit evidence, in writing, (i) of consent from the owner of the system, (ii) from the owner of any conveyance systems located downstream, which may be affected, and (iii) from the owner of the ultimate treatment facility. Verification shall be given that there are satisfactory provisions for emptying the contents from portable toilets in a sanitary manner.~~

b. ~~If sewage is to be stored in a holding tank, the holding tanks shall be sized, constructed and located to meet the criteria.~~

(1) ~~Size of holding tank.~~

Marinas or other places where boats are moored shall size the holding tanks based upon the following tabulations:

Total Number of Boats Serviced with Holding Tanks	Required Onshore Holding Tank - Volume (gallons) Minimum
1 - 20	250
21 - 40	500
41 - 60	725
61 - 80	1000
81 - 100	1200
100+	2000

(2) ~~Construction of holding tank.~~

(a) ~~The holding tank shall be designed so that it is watertight and not subject to any infiltration or any leakage.~~

(b) ~~When holding tanks are made of material other than concrete, the internal surface of the holding tank shall be protected from corrosion. Materials used in the manufacture and installation of holding tanks shall be resistant to deterioration by prolonged or frequent contact with deodorizing chemicals, sewage decomposing chemicals, sewage, freshwater and saltwater.~~

(c) ~~When holding tanks are made of material other than concrete, the outside surface of the holding tank shall be protected from corrosion.~~

(d) ~~The holding tank shall be constructed of materials capable of withstanding the forces exerted on its walls.~~

~~(e) The holding tank shall be fixed in place unless it is part of an approved mobile pump-out unit.~~

~~(f) Provisions shall be made to assure that the holding tank can be completely emptied. The tank shall be essentially emptied when pumped out.~~

~~(g) The holding tank shall be adequately vented. Screened, elbowed down vents installed at the top of the tank will serve this requirement.~~

~~(h) The inlet/outlet of the holding tank shall be compatible with the proposed method of removal.~~

~~(i) There shall be satisfactory provisions for emptying the contents from portable toilets in a sanitary manner.~~

~~(3) Holding tank location.~~

~~Separation distance between holding tank and various structures and features are contained in Table 4.4 of the Sewage Handling and Disposal Regulations (12VAC5-610-10 et seq.)~~

~~(4) Any person who removes, or contracts to remove, and transport by vehicle, the contents of a holding tank shall have a written sewage handling permit issued by the Commissioner (see the Sewage Handling and Disposal Regulations, 12VAC5-610-10 et seq.).~~

~~e. Sewage treatment plant. Disposal of holding tank wastes shall not be allowed at small sewage treatment plants where shock loading may result or disinfectants and odor inhibitors will affect the operation of the treatment facility. Whenever feasible, the collected sewage shall be discharged directly to the sewer system of a large sewage treatment facility or transported for eventual treatment at a large plant.~~

12VAC5-570-190. Sewage dump station.

A. All marinas and other place(s) where boats are moored, regardless of size or number of boat moorings, shall have an acceptable proper and adequate receiving station for sewage from portable toilets containers used on boats. The owner shall install, maintain in good operating condition and provide a sewage dump station to users of the marina or other places where boats are moored. Exempt from this provision subsection are marinas or other place(s) where boats are moored which also qualify for the exemption contained in 12VAC5-570-120 B or C exemption, provided that the owner of the sewerage sanitary facility will allow consents to the dumping of the contents of portable toilets sewage containers into the sewerage sanitary facilities.

B. Availability and operation. Where a sewage dump station is required, the owner shall install, and maintain in good operating condition, it in a serviceable and sanitary condition and in compliance with the regulations. and The owner shall make provide the facilities available to users of the marina or other place(s) where boats are moored. The owner shall locate the sewage dump station in an area convenient for use and the owner shall use placards or signs to identify its location and restrictions.

C. Minimum design criteria for a sewage dump station. The purpose of these the minimum design criteria is to provide the owner and the Department of Health with acceptable methods of discharging sewage from a portable containers into a sewage holding tank or a sewage sewerage treatment works system. The same criteria as set forth in 12VAC5-570-180 C-5 12VAC5-570-200 A for contents from boat holding tanks marine sanitation devices will shall apply for sewage dump stations. The sewage dump station receiving unit shall be a minimum of 12 inches in diameter and be equipped with a cover that has a lip of sufficient size to prohibit prevent it from accidentally being removed accidental removal. If the unit is

designed to drain, the drain shall be a minimum of four inches in diameter and equipped with a fly tight cover.

D. Exempt from the requirements of subsection C are marinas and other place(s) where boats are moored that have an operational pump-out facility equipped with a device to pump portable sewage containers.

12VAC5-570-200. Onshore facilities.

A. Contents from marine sanitation devices and portable sewage containers used on boats shall be discharged to:

1. a public sewerage system for conveyance to an approved treatment works as described in 12VAC-570-170 A;

2. a holding tank whereby sewage may be stored until it is transported in accordance with the Sewage Handling and Disposal Regulations to an approved treatment works as described in 12VAC-570-170 A; or

3. an approved sewage treatment works as described in 12 VAC-570-170 A.

B. Disposal of sewage waste from a marine sanitation device shall be prohibited at small sewage treatment plants where shock loading may result or disinfectants and odor inhibitors will affect the operation of the treatment facility. Whenever feasible, the collected sewage shall be discharged directly to the sewerage system of a large sewage treatment facility or transported for eventual treatment at a large sewage treatment facility.

C. For discharge to a public sewerage system the owner of the marina or other place(s) where boats are moored shall submit to the Division, in writing;

1. written evidence of consent to the discharge from the owner of the conveyance system;

2. written evidence of consent to discharge from the owner of any conveyance systems located downstream which may be affected;

3. written evidence of consent to discharge from the owner of the treatment works where the sewage is to be disposed of; and

4. the owner shall verify that there are satisfactory provisions for emptying the contents from portable sewage containers in a sanitary manner.

D. If sewage is to be stored by the marina or other place(s) where boats are moored in a holding tank, the holding tank or tanks shall be sized, constructed and located to meet the following criteria:

1. Sewage holding tanks shall be sized in accordance with the requirements of Table 2.

Table 2: Minimum Holding Tank Volume

<u>Total Number of Boats Served Annually with Marine Sanitation Devices</u>	<u>Minimum Holding Tank Volume (gallons)</u>
<u>1 - 60</u>	<u>725</u>
<u>61 - 80</u>	<u>1000</u>
<u>81 - 100</u>	<u>1200</u>
<u>100+</u>	<u>2000</u>

2. Holding tanks shall be constructed in accordance with the following criteria:

- a. the holding tank shall be watertight and not subject to any infiltration or leakage;
- b. when holding tanks are made of material other than concrete, the internal surface of the holding tank shall be protected from corrosion. Materials used in the manufacture and installation of holding tanks shall be resistant to deterioration by prolonged or frequent contact with deodorizing chemicals, sewage decomposing chemicals, sewage, freshwater and saltwater.
- c. when holding tanks are made of material other than concrete, the external surface of the holding tank shall be protected from corrosion.
- d. the holding tank shall be constructed of materials capable of withstanding the forces exerted on its walls.
- e. the holding tank shall be located onshore and fixed in place unless it is part of an approved mobile pump-out unit.
- f. provisions shall be made to the satisfaction of the Department to assure that the holding tank can be completely emptied. The tank shall be essentially emptied when pumped out.
- g. the holding tank shall be adequately vented. This requirement may be met with screened, elbowed down vents installed at the top of the tank.
- h. the inlet/outlet of the holding tank shall be compatible with the proposed method of removal.
- i. there shall be provisions for emptying the contents from portable sewage containers in a sanitary manner.

3. The required separation distances between holding tank and various structures and features are contained in Table 4.1 of the Sewage Handling and Disposal Regulations (12VAC5-610-20 et seq.).

4. Any person who removes, or contracts to remove and transport by vehicle, the contents of a holding tank shall have a written sewage handling permit issued by the Commissioner in accordance with the Sewage Handling and Disposal Regulations, (12VAC5-610-20 et seq.).

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Stephen Turchen

Representing: Virginia Building & Code Officials Association

Mailing Address: Suite 316 / 12055 Government Center Parkway, Fairfax, VA 22035

Email Address: Stephen.turchen@Fairfaxcounty.gov

Telephone Number: 703-324-1653

Proposal Information

Code(s) and Section(s): 2012 IECC Section C405.6

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section C405.6 as shown:

C405.6 Exterior lighting (Mandatory). ~~Where the power for exterior lighting is supplied through the energy service to the building,~~
aAll exterior lighting, other than low-voltage landscape lighting, shall comply with Sections C405.6.1 and C405.6.2.

Exception: Where approved because of historical, safety, signage or emergency considerations.

Supporting statement:

The proposal would have the IECC apply to all exterior lighting, rather than just exterior lighting fed from the electric service of the building. This would eliminate the loophole of using a separate service for the exterior lighting and thereby not have it subject to the code.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

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Name: Stephen Turchen

Representing: Virginia Building & Code Officials Association

Mailing Address: Suite 316 / 12055 Government Center Parkway, Fairfax, VA 22035

Email Address: Stephen.turchen@Fairfaxcounty.gov

Telephone Number: 703-324-1653

Proposal Information

Code(s) and Section(s): 2012 IECC Sections C402.4.5.2 and C403.2.4.4

Proposed Change (including all relevant section numbers, if multiple sections):

C402.4.5.2 Outdoor air intakes and exhausts. [Add the following exception:]

Exceptions:

3. Any grease duct serving a Type I hood installed in accordance with International Mechanical Code, Section 506.3, shall not be required to have a motorized or gravity damper.

C403.2.4.4 Shutoff damper controls. [Add the following exception:]

Exceptions:

3. Any grease duct serving a Type I hood installed in accordance with International Mechanical Code, Section 506.3, shall not be required to have a motorized or gravity damper.

Supporting statement:

These two IECC provisions potentially conflict with the IMC. With few current exceptions, the IECC tries to ensure that every duct or shaft that connects the (conditioned) interior of a commercial building to the (unconditioned) exterior have a damper installed that will prevent unwanted infiltration of outside air. In all cases under the IBC and IMC (except for this one), the open shaft or duct can have an air infiltration damper installed at or near the thermal envelope boundary without compromising health or life safety. However, for grease ducts ventilating Type I hoods installed under the IMC, IMC Section 506.3.7 specifically states, in part, *Duct systems serving a Type I hood shall be constructed and installed so that grease can not collect in any portion thereof ...* An air damper assembly would provide one or several surfaces on which grease could collect. The proposed revisions will avoid potential conflicts between the IECC and IMC and alleviate individual code officials from having to individually interpret this issue. Impact of the change will be to ensure the safety and integrity of grease duct installations.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Matt Westheimer

Representing: VBCOA Energy Conservation Committee

Mailing Address: 401 Lafayette Street, Williamsburg, VA. 23185

Email Address: mwest@williamsburgva.gov

Telephone Number: 757-220-6135

Proposal Information

Code(s) and Section(s): VCC (IECC C405.1)

Proposed Change (including all relevant section numbers, if multiple sections):

C405.1 General (Mandatory). (no change to text of section)

Exception: Dwelling units within commercial buildings shall not be required to comply with Sections C405.2 through C405.5 provided that not less than 75 percent of the permanently installed ~~light fixtures~~ luminaries, other than low voltage lighting, shall be fitted for, and contain only, high efficacy lamps.

Supporting Statement (including intent, need, and impact of the proposal):

To make the wording when referring to lighting consistent with NEC.

Submittal Information

Date Submitted: 6/25/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: Haywood Kines / Matt Westheimer Representing: VBCOA Energy Conservation Committee

Mailing Address: 5 County Complex Ct. Woodbridge Va. 22192

Email Address: hkines@pwcgov.org Telephone Number: (703) 792-7064

Proposal Information

Code(s) and Section(s): VCC, Section 1301.1.1 of the IBC

Proposed Change (including all relevant section numbers, if multiple sections):

Add an exception to Section 1301.1.1 of the IBC to read

Exception: The following buildings, or portions thereof, separated from the remainder of the building by building thermal envelope assemblies complying with the International Energy Conservation Code shall be exempt from the building thermal envelope provisions of the International Energy Conservation Code:

1. Those with a peak design rate of energy usage less than 3.4 Btu/h · ft² (10.7 W/m²) or 1.0 watt/ft² (10.7 W/m²) of floor area for space conditioning purposes.
2. Those that do not contain conditioned space.

Supporting Statement (including intent, need, and impact of the proposal):

The low energy building exception in the IECC is in its administrative provisions therefore making it unclear whether it applies under the USBC. This amendment will ensure that the exception may be used in the energy provisions of the USBC.

Date Submitted: Modified 6/25/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Matt Westheimer

Representing: VBCOA Energy Conservation Committee

Mailing Address: 401 Lafayette Street, Williamsburg, VA. 23185

Email Address: mwest@williamsburgva.gov

Telephone Number: 757-220-6135

Proposal Information

Code(s) and Section(s): VCC (IECC Section C402.4.8)

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section C402.4.8 as shown:

Recessed lighting. Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate or not more 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E 283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires installed in the thermal envelope shall be sealed with a gasket or caulk between the housing and interior wall or ceiling covering.

Supporting Statement (including intent, need, and impact of the proposal):

Only Recessed lighting which is installed in the thermal envelope should have to be sealed.

Submittal Information

Date Submitted: 3/21/12 modified 6/25/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Stephen Turchen

Representing: Virginia Building & Code Officials Association

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Proposal Information

Code(s) and Section(s): 2012 IECC Section C402.1.1

Proposed Change (including all relevant section numbers, if multiple sections):

C402.1.1 Insulation and fenestration criteria. [Revise last sentence only as follows:]

The thermal envelope of buildings with a vertical fenestration area or skylight area that exceeds that allowed in Table C402.3 shall comply with the building envelope provisions of ANSI / ASHRAE / IESNA 90.1 the maximum area allowed under Sections C402.3.1, C402.3.1.1, or C402.3.1.2, as applicable, shall be evaluated using a software tool as indicated in Sections C407.6, C407.6.1, and C407.6.2.

Supporting Statement (including intent, need, and impact of the proposal):

This change clarifies two important issues when evaluating thermal envelopes of commercial buildings. The prescriptive requirements of thermal envelopes are limited by vertical fenestration area and skylight area. However, these limits are not defined by Table C402.3, but rather in the code language of Sections C402.3 and its sub-sections. Assuming that vertical fenestration and skylight areas are within the allowable limits of the code text, then the prescriptive values of Table C402.3 can be applied. The more critical issue is how to proceed if the stated limits are exceeded. The current paragraph directs the user to building envelope provisions of ASHRAE Standard 90.1; see Section 5 of that standard. Presumably the current IECC intent is that 90.1 / Section 5 be used in lieu of IECC Section C402. This intent conflicts with **C401.2 Applicability**, which tells the IECC user to, effectively, use either the IECC in its entirety or Standard 90.1 in its entirety for commercial buildings; see options 1 and 2 under C401.2. The proposal addresses this potential conflict by directing the IECC user to certain sub-sections of IECC Section **C407 Total Building Performance**. The cited sections under C407.6 allow the user to employ an envelope analysis tool that has been approved by the building official under C407.6.1 ("limited scope"), without getting involved in the more complex full building performance analysis discussed in all of C407. Note that by not directing the IECC user to Section C407 when fenestration / skylight areas are exceeded, another potential conflict with Section C401.2 (Option 3) is also avoided. Impact of the change will help ensure that both designers and code officials have a well-defined enforcement path for all thermal envelope situations in commercial buildings, and that such enforcement will be more uniformly implemented throughout the State.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

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Proposal Information

Code(s) and Section(s): 2012 IECC Sections R202 and C202

Proposed Change (including all relevant section numbers, if multiple sections):

Change the definition of "Building thermal envelope" in Sections R202 and C202 as shown:

BUILDING THERMAL ENVELOPE. The basement walls, exterior walls, floor, roof, and any other building elements that enclose conditioned space or provides a boundary between conditioned space and exempt or unconditioned space. Unconditioned space shall include those buildings or spaces adjacent to a conditioned space that may not be heated or cooled for extended periods of time, such as adjacent townhouses or adjacent tenant spaces, due to periods of non-occupancy.

Supporting statement:

The proposed change is intended to ensure that the thermal envelope boundary will include the separation between a conditioned space and those spaces which have a reasonable expectation of being unoccupied (and therefore unconditioned) for a significant albeit temporary period of time. Typical residential building example is an occupied townhouse that is adjacent to an unoccupied townhouse. Typical commercial building example is a tenant space that is adjacent to a vacant or simply undeveloped tenant space. If the common wall between the townhouses or between the tenant spaces is uninsulated, there will be unnecessary heat transfer across that boundary. The proposal will prevent this situation from developing.

There may be cost impacts of this proposal, but they are difficult to gauge. Townhouses required "rated" separations which may include insulating materials that could also satisfy the wall R-value requirement. Common townhouse construction practice is to build a stud wall on the inside of the rated wall, which could be filled with materials with the required R-value. Tenant demising walls are not commonly insulated for energy conservation or to achieve a fire rating, but ARE sometimes insulated for sound transmission attenuation. Sound insulation can serve double duty as an energy insulating product if it meets the required R-value of Table C402.2.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to: