

Facility and Aboveground Storage Tank Regulations (9 VAC 25-91)
DEQ Regulatory Advisory Panel March 12, 2012 meeting notes
629 E. Main Street, Richmond VA 23218

RAP Members present

Bob Alvis, Citgo
Jim Puckett- (Alternate for Bill Wilkinson) Dominion
Walter Beck (alternate for Sam Hollins), Vulcan Materials
Clement Mesavage, Antea Group
Emory Rodgers- VDHCD
PJ Smith, P.G., Faulkner & Flynn, Inc.
Steve McNelly, TransMontaigne
Andrew Wilson, City of Fairfax
Ms. Martha Neave (representing citizens)
Tom Burrell, Barrister's Keepe Homeowner's Association
Michael D. Ward, Virginia Petroleum Council
Jim Hinkle, Mantua Citizens' Association (alternate for Roger Cryan, Ph.D.)
Randy Chapman, DEQ
Mike Neish, Morgan Oil Corporation
Donald L. Struminger, P.E. Southern Textile Service
Mike O'Connor, Virginia Petroleum Convenience and Grocery Association
Joseph J. Croce, representing Virginia Manufacturers Association

RAP Members not present

Roger Cryan, Ph. D., Immediate Past President of the Mantua Citizen's Association
(alternate, Jim Hinkle was present)
Mr. Mace Carpenter (representing citizens)
Mike Younce, Buckeye Partners, L.P.

Public Attendees

Barbara Brumbaugh, City of Chesapeake
Richard C. Lutz, Transcontinental Gas Pipe Line Company, LLC
Carol Peterson, US Navy-NAVFAC Mid-Atlantic
John Roland, Virginia Asphalt Association

DEQ Staff

Betty Lamp
Melissa Porterfield
Russ Ellison
Alicia Meadows
Steve Hughes

Welcome and Introductions

Melissa Porterfield welcomed RAP members and introductions were conducted. The goal of the group is to discuss topics and concepts and to reach a consensus concerning the topics and concepts discussed. Consensus is defined as a willingness of each member of the RAP to be able to say that he or she can live with the decisions reached and recommendations made and will not actively work against them outside of the process. Mrs. Porterfield discussed housekeeping issues. The next AST RAP meeting will not be March 26, 2012.

The meeting agenda included a public forum. The public forum portion of the meeting provides an opportunity for the public to provide comments to the RAP. Individuals that were interested in speaking during the public forum were asked to contact Ms. Porterfield. Since there were no individuals that signed up for the public forum, the public forum was not held. These public forums provide an opportunity for members of the public to provide feedback to the group.

Meeting notes were taken and would be distributed to the group for review. The meeting notes must be posted within 10 days after the meeting.

Prior to the RAP meeting, documents were provided to the AST RAP members and interested parties which included the following:

- Strawman document of Section 145- a new section of the regulations to address the facilities located in the City of Fairfax
- Strawman document of the existing regulation
- Section by section summary of changes in the strawman document
- Key Suggested Regulation Changes for the AST Regulations that identified eight areas the agency previously identified as potentially needing revision

Discussion of Draft Regulatory Language –Fairfax Facility

Mrs. Porterfield indicated that the agency reviewed the comments regarding the proposed regulatory language for Section 145 (new City of Fairfax requirements) of the AST regulation. The draft language is the agency's suggestion for how the new regulation should be addressed. Mrs. Porterfield asked for group comments. The following are the items discussed by the group:

- The applicability of the agency's draft language to small (less than 30,000 gallons) horizontal tanks that are not in contact with the ground. Members were concerned that the agency's draft language would require release prevention

barriers (RBP) for the horizontal tanks that are not in contact with the ground and within a dike. A dike designed to catch a release from a 1 million gallon tank should catch a release from the smaller horizontal 30,000 gallon tanks. Photographs of the small horizontal tanks under discussion were sent around the room. Members recommended clarity regarding the tanks that are required to have RBPs. The group began discussing Section 145.A.2 of Mr. Andrew Wilson's draft language which was as follows:

"...Existing horizontal tanks that are installed with the tank shell not in contact with the ground and that are installed in containment areas meeting the requirements of an RPB as defined elsewhere in this regulation or that are located within earthen containment dikes and are included in the daily and weekly inspections required by 9VAC25-91-130, section A, paragraph 7, shall be considered to be in compliance with the requirements of this section..."

RAP members discussed using the words "off the ground" or "elevated" instead of "horizontal" in reference to the above draft language suggested by Mr. Wilson. The group discussed different implications and wording to express that tanks not in contact with the soil be excluded from the RPB requirement. It was suggested that the Steel Tank Institute's (STI) definition of "elevated AST" be used and defined in the new regulation.

STI defines an "Elevated AST" in STI SP001 (September 2011 5th edition) as "An AST which is not in contact with the ground and which is raised above the surface of the ground or bottom of a vault using tanks supports. An elevated AST allows for a visual external inspection of the bottom of the primary tank. Examples of elevated tanks are tanks constructed on grillage or grating, or tanks on supports."

- The definition of "tank" was also discussed and variations of the word "tank" and "AST".
- The potential consequences of Section 140 and Section 145 reading differently.
- The applicability of daily and weekly inspections for the tanks that will be regulated under Section 145.
- The current definition of RPB under VA regulations, Spill, Prevention, Control, and Countermeasures (SPCC) regulations, and industry standards/practices was discussed. It was indicated that SPCC only protects navigable waters and Virginia regulations are written to protect surface water, groundwater, and land. The suggested language matches the new performance standards under current

Section 140. Industry defines RPBs differently. STI SP001 Standard for tanks under 30,000 gallons has a different definition of RPB than Virginia or SPPC rules.

- Strength testing was discussed. Members felt that the language needed to clarify when strength testing would be required. The way the language is currently drafted it appears that all tanks must be strength tested. Members discussed whether or not strength testing should appear in Section 145 since the Uniform Statewide Building Code (USBC) and API Standards 653 and 652 indicate when strength testing should occur. The RAP members reached a consensus that strength testing should be included but further discussed the language that should be used. For clarity, the group contemplated adding the words “altered” or “upgraded” to Section 145.B of the draft language. The group decided that “altered” should be used to conform with the language in the USBC.
- If Section 145.C was amended to include ASTs “altered” then Section 145.D should also be amended.

RAP members reached a consensus that the regulatory language for 9VAC25-91-145 should read as follows:

9VAC25-91-145. Performance standards for certain aboveground storage tanks located in the City of Fairfax.

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

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

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

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

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

Also add the definition of "Elevated AST" from STI SP001 (September 2011 5th edition) to definition section of the regulations.

Discussion of Technical Amendments to the Regulations

Previously the agency identified eight potential areas the agency was considering revising in the regulations. A summary document was developed that identified the eight areas and described how the strawman document was revised in these eight areas. Items the agency was considering amending:

Key Suggested Regulation Changes for the AST Regulations

1. **Applicability** – Agency explained that we did not have the authority to delete the references to 1320 gallons because of the way the statute was written.
2. **Belly Tank Clarification** – One RAP member suggested that we add to the exclusion that the fuel in the tank is only supplying that piece of equipment that it is part of.
3. **Secondary Containment** – Group discussed the requirements for secondary containment under USBC, NFPA 30, and 40 CFR 112. It was also noted that the reference to (1992) 40 CFR 112 was deleted on Page 25 of the draft regulation but not Page 18-line 32. The regulation should reference the same version of 40 CFR 112 in both of these places. One member was concerned that Page 18, Line 32- (maximum capacity of any single compartment of a vehicle loaded or unloaded in the transfer area) isn't exactly what 40 CFR 112 states. It was also suggested that we change "transfer area" to "loading rack" since "transfer area" may be too broad for some applications.
4. **Updating Publication and Code References** – Members discussed the meaning of the -"NOTE" on top of pg. 44 of the strawman document. Emory Rodgers explained that the USBC comports with building codes and covers tanks that are not regulated by this regulation (or DEQ). But the note only refers to "portions" of this regulation. This is just making a reference to let people know that there may be other requirements under USBC.
5. **Clarify applicability of regulation to tanks with contents that meet the definition of oil but are solid (not liquid) at standard temperature and pressure (e.g., asphalt, Bunker C, paraffins).** No changes proposed to this section by the agency.
6. **Variations** – One member suggested that it would make more sense to integrate "variances" into the specific applicable sections. If the "variances by regulation" were integrated, then "variances" would appear twice in the regulation since the statute requires that "variances" be a separate part of the regulation.

It was also suggested that in order to coincide with the previous discussions that the wording in variance number 1 be changed to "elevated" instead of "totally off ground". The group discussed the meaning of "totally off ground". "Totally off ground" is in the law. "Elevated" could be a definition for "totally off ground". Historically, DEQ does not interpret off ground as sitting on concrete only. It was indicated that some tanks are inside buildings but not elevated, such as tanks

located in basements. One member indicated that STI SP001 inspection is presumed to be able to see the entire tank.

7. Clarify applicability of regulatory requirements to portable tanks.

Minor modifications to the closure requirements have been made to allow flexibility for smaller tanks to be closed using an alternative to soil sampling.

8. Simplify fee structure.

No changes were made to this section. This section may be discussed at a future meeting, but the agency has not shared any proposed changes to this section.

RAP Member Concerns

- One member was concerned about the change indicated on Page 21, line 17-20 being more than a non-substantive change.
- **Definitions** – Consider adding “Elevated AST” definition.
- **Applicability** – The group discussed the feasibility of increasing applicable sizes of individual tanks for pollution prevention and ODCP requirements since many small tanks add up to an aggregate facility capacity of 25,000 gallons which make ODCP and P2 requirements applicable to the facility. One member felt that SPCC rules adequately regulate these facilities. Different minimum tank capacity requirements were considered, but it was indicated that the tank capacity should match the current statute. It was suggested that 12,000 gallons or less capacity be considered by a regulatory variance. It may be added as a variance but the statute only mentions variances to Inventory Control. The Attorney General's office will review the proposed regulation presented to the State Water Control Board to make sure the regulation is consistent with state statute.
- The members discussed the possibilities of double-walled USTs being exempt or excluded from aggregate capacities or other types of systems that have gone above and beyond the current requirements. DEQ's Environmental Excellence program was also suggested as a solution to this suggestion. Mrs. Porterfield indicated that DEQ needs to research this issue. DEQ staff indicated that most releases are from piping and overfilling thus a double-walled tank is not usually the source of the release.

- The members also discussed the differences in Virginia's ODCP and the Federal SPCC requirements and intentions. ODCP is to protect VA environmentally sensitive areas (i.e., including ground and surface waters, and land) and keeping large spills from reaching Virginia waterways. SPCC only applies to facilities that fall under the Clean Water Act that may pollute navigable waters and does not include groundwater or land protection, so there are likely facilities that aren't regulated by SPCC that are regulated by Virginia's regulations.
- **Informal and Formal Inspections**
 - The group discussed adding STI standards (SP 001) to informal and formal inspections for ASTs 12,000 gallons or less. UL 142 was also discussed as an industry standard other than API 653. It was suggested that the regulation state "industry standard" instead of API 653. Group suggested that the inspections be changed to API 653, STI SP-001, or another method approved by the board. API 653 reference needed to be updated to the newest edition.
 - Add reference to API 651 (cathodic protection for tanks) to list of standards that are mentioned on Pages 18 and 19.
 - API 2350 Overfill Prevention may be published this July 2012.
- **Visual and Daily Inspections (pg. 19)**
 - Allowing flexibility to the weekly inspection checklist.
 - It was also mentioned that DEQ's reference to 60 degrees F at 14.7 pounds per square inch may be in conflict with Section 59.1-153 of the Code of Virginia.
- **Piping Pressure Testing**
 - DEQ cannot exempt aboveground piping from pressure testing requirements due to the exemption not appearing in the statute.
 - First valve rule was discussed from AST that connects an AST with production process tanks or production process equipment. It was suggested that the agency consider changing to "pipes or piping beyond the first valve within containment..."(Page 5 line 39).
 - Discussion of pressure testing requirements.

Section 130

Mrs. Porterfield walked the group through the changes and the reason for the changes. The group discussed the following topics:

- The requirements under Page 16, line 7 for formal re-inspections -SP 001- STI standard says every 20 years. Virginia's statute requires formal re-inspections every 10 years.
- 12,000 gallon exclusion does not appear for the small tanks under pollution prevention requirements, but appears in law.
- The group suggested that the ordering of the requirements for facilities of under 1 million gallons and over 1 million gallons of oil requirements be swapped due to logic. The suggestion was made to list all requirements that facilities greater than 25,000 gallons must meet in section A, then list the additional requirements for facilities of 1 million gallons or more must meet in section B. It was also suggested that DEQ use a different color to identify reorganization instead of actual additions or changes (instead of redline).
- Fees may be addressed at a later date.
- Asphalt tank issues may be suggested by RAP members, but the agency has not proposed any changes.