

**Sewage Handling and Disposal Regulations**  
**Installation and Inspection Subgroup**  
**Wednesday, July 16, 2024 – 10:00 am to 2:00 pm**  
**Meeting Notes**

**In attendance:** Dave Tiller, Lance Gregory, Anne Powell, Adam Feris, Andrew Carter, Andrew Jacobs, Anthony Creech, Charlie Paullin, Curtis Moore, Ed Pennypacker, Gary Coggins, Greg Garber, Jay LeReche, John Dickson, Josh Anderson, Julia Wilkinson, Kate Jones, Katherine Merten, Kelli Greenstreet, Kevin Wastler, Makenzie Lynn, Mike Callahan, Mike Lynn, Mike Thomas, Mitch Rieley, Pat Calvert, Philip Brown, Rachel Kulp, Ryder Bunce, Ryan Beale, Sarah Walton, Shawn Carman, Steve Valentine, Tanya Pettus, Travis Holt, and Vickie Vaughan

1. **Welcome / brief introductions** (5 min.)
2. **Follow-up from 2022 subgroup meetings** (15 min.)
  - a. Standard for septic tanks (Loudoun model, NC model, other)
  - b. Vacuum testing or water testing of tanks
  - c. VDH inspections should be open trench, with exceptions.
  - d. Need mechanism to ensure that what is design is what is installed, even if above min. standard. The installation shall meet the minimum requirements of the Regulations and the specification of the approved permit (both).
  - e. Standards for as-built drawings.
  - f. Standards for inspection reports.
  - g. Need a clear process if someone other than the designer does the inspection (who?).
  - h. Notifying the HD about installation.
  - i. VDH's 4-Point Inspection more clearly defined. (Location of the OSS, Proper Treatment, Depth of Installation, Capacity of the OSS)
  - j. Final Grade Inspection
  - k. Underground Marker Tape
  - l. VDH final inspection when the OSE/PE refuses to conduct the inspection.
  - m. Record for non-permitted required repair. (more a reporting issue than I & I)
3. **Draft regulation concerning installation notification** (45 min.)
  - a. Draft language - licensed installers shall notify VDH and OSE/PE 24 hours prior to the date installation will occur.
    - i. Ryder Bunce – recommended adding “at least” to 24 hours prior to.
    - ii. Mike Lynn – asked to clarify if this is notice to when installer will break ground, not a pre-construction meeting
    - iii. Curtis Moore – asked if it should be worded to specify that department staff will be inspecting the installation during business hours? One business day?
    - iv. Gary Coggins – recommended “shall contact VDH and designer to schedule a final inspection and allow for the timely covering of the SDS within 1 business day of planned installation.” Intent is to open the lines of communication between VDH staff and installers.
      - v. Adam Feris – proposed “2 business days”
      - vi. Curtis Moore – proposed changing from the word “occur” to “begin”
      - vii. Curtis Moore – asked what the repercussions are if installers fail to notify VDH and OSE/PE about installation
      - viii. Gary Coggins – mentioned that the repercussions should be similar to those listed in current Sections 320 and 330; more of an inconvenience than permit voidance, etc.
      - ix. Lance Gregory – asked if we should include something to say that the VDH inspection is still discretionary

- x. Julia Wilkinson – asked why we are adding a new section to the regulations instead of reworking current Sections 320 and 330.
- b. Dave mentioned that it would help if VDH had dedicated phone numbers and email addresses for installers to use on the VDH website.
  - i. Many LHD representatives in the meeting were in favor of this suggestion.
  - ii. Anne Powell – said it would be in VDH’s best interest to create a simple, efficient way for installers to notify each local health district, but it’s not something we should necessarily include as a regulatory requirement
  - iii. Katherine Merten – said reporting inspection process should be determined at the local level
  - iv. Julia Wilkinson – believes the inspection notification should rest with the local health department; perhaps VDH should state at least that part in the regulation. Local health departments should modify their permit cover letters to allow for verified contact with an Environmental Health Specialist. Common email addresses are not going to work in this District. They’ve attempted. Secondly, regarding the uncovering of a system: it sounds like they are looking for a little softening of that last part of proposed C.1, like: it may be up to the discretion of the district or local health department to uncover any part of an installation which has been covered prior to approval.

**4. Draft regulation concerning testing of tanks (45 min.)**

- a. Draft language includes a requirement for either a water test or vacuum test for all tanks included in onsite sewage system design
  - i. Lance Gregory – mentioned that Loudoun County is going to provide data from their experience when they began requiring tank testing (report summary provided by Joshua Anderson via email)
  - ii. Christopher Jamison – provided input from the perspective of a precast manufacturer; there are downsides to both water testing and vacuum testing; there is a lot of expense included with water testing; there are hazards with possible implosion with vacuum testing
  - iii. Joshua Anderson – explained that 2.5 inches of mercury is 36.36 pounds per square inch
  - iv. Ed Pennypacker – provided information on testing data and protocols; stated that vacuum testing provides a more consistent pressure throughout the tanks; stated that vacuum testing is also a quicker process
  - v. Josh Anderson – stated that no concrete tanks have failed under Loudoun’s testing criteria in the past 4 years but cannot speak beyond that time. There have been plastic tanks to fail Loudoun’s testing criteria in that time.
  - vi. Adam Feris – asked if EHSs are required to inspect systems and therefore required to observe a tank test, would that put an EHS on site more than once for a system installation; LHDs do not have those resources; wonders if the regulations could include something to make “witnessing” the tank testing by VDH discretionary
  - vii. Ed Pennypacker – mentioned that the national standards (ASTM C 1227) require a gauge that reads to the tenths
  - viii. Anne Powell – asked if SHDR could reference the national standards instead of writing out each specific in the SHDR. Curtis Moore mentioned that past regulatory revisions have steered away from the practice of referencing standards.

- ix. Curtis Moore – costs would be added on the designer and installer side; testing must be integrated with the tank standards of construction, thinking along the lines of wedge lids vs. risers
- x. Ed Pennypacker – in Loudoun, the installer has already run the test before the inspector arrives; the inspector just has to witness it for the short duration of the testing; OR ask manufacturers to guarantee watertightness before leaving the manufacturer’s lot
- xi. Mike Lynn – offered that his company fills all tanks as soon as they put them in the ground to avoid floating; they fill the tanks up into the riser
- xii. Christopher Jamison – mentioned that his company adds a \$500 fee on to the sale of the tanks to the installers for vacuum testing and the procedural costs
- xiii. Mike Lynn – mentioned that the program now has licensed installers and licensed designers signing off on these installations; consider how involved VDH wants/needs to be in the installations; the more you ask VDH to do, the more resources VDH needs and the more liability VDH has as a department; not a popular position; could be simplified to: “Is it in the permitted location and does it meet the setback to the things identified in the sanitary survey?”
- xiv. Julia Wilkinson – added that this would not always mean just adding a riser to an existing tank; precast risers cost a lot more; other costs include precast companies buying new tank molds; also don’t forget about repairs to existing systems and whether or not they’d need to be compliant with this regulations
- xv. Curtis Moore – mentioned that what this really boils down to is what does it take to make sure these septic tanks work, safe for the environment, quality manufacturing; yes, it might cost more, but it’s about having tanks that work

**5. Draft regulation concerning department inspection criteria (45 min.)**

- a. Draft Section 967.C.1 – rewriting current section 320
  - i. No additional comments from the group
- b. Draft Section 967.C.2 – designing and installing higher than the regulatory requirements
  - i. Gary Coggins – asked what about the situations where there’s one thing out of compliance; Dave Tiller said there are contractors installing the minimum of the regulations even though the designer included more stringent requirements in the design; Gary Coggins further recommended adding language to stipulate that any further requirements of the design are at the discretion of the designer AND any deviations from the design are left up to the designer to say if it’s in substantial compliance.
  - ii. Curtis Moore – mentioned it has to do with changes in location of components too; think about it from the building construction perspective, what if a builder changed things without the architects knowing?
  - iii. Julia Wilkinson – “as authorized by the designer”
  - iv. Anne Powell – suggested strengthening current Section 310 to include language about private sector designs and what they authorize or deem as substantially compliant with their permit
  - v. Katherine Merten – asked what if the property owner hires a new OSE/PE and they attempt to make changes to the original permit
  - vi. Julia Wilkinson – pointed out that VDH’s permit approval cover letters include the statement, “If modifications or revisions are necessary, please contact the OSE/PE who performed the evaluation and design on which this

permit is based. Should revisions be necessary during construction, your contractor should consult with the OSE/PE that submitted the site evaluation or site evaluation and design. The OSE/PE is authorized to make minor adjustments in the location or design of the system at the time of construction provided adequate documentation is provided to the "(Local)" County Health Department."

- c. Draft Section 967.C.3 – adds that VDH gets GPS coordinates to the Regs
  - i. Lance – mentioned that the data VDH has collected to date for onsite sewage system has been used to identify a property as a whole as “having an onsite sewage system” and not to locate each specific component of the OSS; Andrew Carter asked about properties that have more than one OSS and properties where the drainfield is far away from the house/structure.
  - ii. Curtis Moore – asked what VDH is using this data for; what would the point be for getting more specific data for each component; Dave Tiller answered that VDH is considering moving this collection of GPS data from a policy into Regulation; Adam Feris mentioned that it’s used for the Chesapeake Bay Preservation Act where the location of the drainfield is critical (considering RPAs and RMAs);
  - iii. Gary Coggins – If VDH is going to collect the GPS points, we need to clarify how true of a point that is
  - iv. Dave Tiller – perhaps this does NOT need to be in regulation? Lance mentioned that this is a good point to follow-up on with EH Managers; internally do we think it’s a good practice, what are we doing with this data, what are the resource needs, etc.
  - v. Curtis Moore – As-Built Drawing is much more beneficial than GPS coordinates
  - vi. Julia Wilkinson – mentioned that EHD struggles with GPS coordinates for the property itself, so VDH should consider that when discussing how to move forward; the one data field for GPS coordinates currently sits at the bottom of the STS tool page
- d. Draft Section 967.C.4 – minimum requirements for VDH’s inspection of private sector design permits (“The Four Point Inspection”)
  - i. Adam Feris – concern with “location” point, during open-ditch inspections VDH won’t know about any minor location changes for tanks or the like; foresees it being a timing issue between when VDH does the inspection and when VDH receives the OSE/PE Inspection Report and As-Built
  - ii. Lance Gregory – risk-based triggers; licensed designed and licensed installer putting in a COSS on a 5-acre parcel is much less “risk” than an above-grade mound on a ½ acre parcel with water table issues? Could VDH do inspections based on “risk” spectrum?
  - iii. Adam Feris sees a legislative conflict between Acts of Assembly Chapter 602 and § 32.1-164.1.E? 602 says inspections are required. 164.1.E says it’s at the LHD's discretion.
  - iv. Curtis Moore – remembers the subgroup talking back in 2022 about VDH’s inspection being like a Level 2 review of the installation; VDH doing 100% inspections all open-trench might be a waste of resources; create stronger standards for OSE/PE Inspection Reports to steer away from “installed as designed” and “ok” type reports
  - v. Gary Coggins – EH managers want to see more VDH inspections; want more time for staff to get in the field; more focus on what is actually in the ground and less focus on what it looks like on paper

- vi. Julia Wilkinson – wonders where The Four Point Inspection ever came from; should we look into fine-tuning is based on what is actually making systems fail prematurely; working in the private sector with an installer, it was hard enough to get OSE/PEs out to the property for their inspections – seems important to modify VDH’s inspection for what is necessary. Dave Tiller answered that The Four Point Inspection came from looking at what was “critical” or what was the bare minimum to see if the system was installed correctly. Lance Gregory mentioned that everything can be perfect from the VDH and OSE perspective after their inspections, but final grading can destroy the whole project (post-construction issues in general); it doesn’t have to be the bare minimum when just being out there and putting eyes on it can make all the difference
- e. Draft Section 967.C.5 – from Code of Virginia
  - i. Dave Tiller – this language from the CoV does not give any wiggle room for a 3<sup>rd</sup> party inspector; Code specifies “THE certifying licensed PE or OSE”; it is suggested that the Code needs to be amended; Lance Gregory is following up with the Office of the Attorney General about how VDH is handling that process
- 6. Draft regulation concerning inspection reports and completion statements (45 min.)**
  - a. OSE/PE Inspection Report
    - i. Gary Coggins wants to put a time frame on the reg instead of “timely manner” – 30 days is what VDH includes in the Private Well Regs; Curtis Moore is leery about the time frame because construction completion can be delayed and other things, it’s not always one inspection for an OSE, sometimes there’s a follow-up or a pump start-up; Gary offered that the time frame could be from the date when the document was signed or construction was truly completed. The value of requiring the document in a timely manner is so VDH can issue the Operation Permit and to prevent professionals from withholding the documents for payment, etc.
    - ii. Curtis Moore does not see any reason to put a timeline on when the paperwork needs to be submitted or requiring a completion statement from the OSE/PE
    - iii. Mike Callahan linked this discussion to the food program with permitting temporary events where the application/documents are required at least 10 days before issuing a permit.
  - b. Installer’s Completion Statement
    - i. Mike Callahan – include an installation date on this form, not just the date they sign/submit it
  - c. As-Built Drawing –
    - i. Dave Tiller – “Sufficient” Triangulated Measurements – relying on the professionalism of the certifying OSE
    - ii. Anne Powell – strengthen this section by saying that the triangulated measurements have to be to “fixed points” and include how many measurements to which specific components
- 7. Additional discussion (30 min.)**
- 8. Next steps / meeting conclusion (10 min.)**
  - a. Follow-up meeting with next draft on August 21, 2024 from 10am to 2pm
  - b. Save the Date will be sent out in the next week
  - c. Meeting information will be available on Town Hall