

WASHINGTON DEPARTMENT OF HEALTH
Sewage Tank - Rule Advisory Panel
May 13, 2008, 9:30 – 3:30
Washington Department of Health, Kent Office

SUMMARY

Action Items

Next Meeting: June 12, 2008. Kent

- Main focus: Follow-up items, any other issues. Not water tightness.
- Water-tightness to be discussed at July meeting.
- DOH and the RAP were asked to consider a 2 day meeting, due to travel issues.

Follow-Up Items

- DOH to look at Uniform Plumbing Code, IAPMO, UL Standards and Ecology Orange Book for grease interceptor requirements: compare. Issue: slot or port OK instead of tee and riser? What inlet depth?
- RAP members to send Mamdouh El-Aarag information on common products used with tanks “appurtenances”. DOH to verify compliance with cited ASTM standards.
- DOH to research and bring back information: minimum distance between access ports. Section 3.4.4.
- DOH to report LOSS Rule Advisory Committee input on tank minimum and maximum volumes at next meeting.
- DOH to report on P.E. licensing in Washington response from DOL.
- DOH to check with other states to see how they handle modifications to tank design, after approval.
- DOH to provide definitions for “adversely” and “trash tank”.

Introduction and Opening Remarks

Dave Lenning welcomed panel and audience members, reviewed the agenda, introduced DOH staff members, and asked panel members and audience members to introduce themselves.

Dave moved directly to Task 1 to start where we left off in April.

Task 1: Complete Review of July 2007 Recommended Standards and Guidance (RS&G) for Sewage System Tanks.

Mamdouh continued with the PowerPoint, starting with Section 3.7.3.4 (page 17 of the RS&G). The group reviewed and discussed the items in each section and voted on various recommendations.

Comments and Votes

1. Section 3.7.3.4: Change wording to “Tanks shall be manufactured to accommodate effluent screening” or similar.

Committee Vote: 11-Green.

2. Sections 3.7.3.4.1-6: Shift to guidance (if needed). Replace “non-corrosive” with “corrosion-resistant”.
Committee Vote: 11-Green.
3. Section 3.7.4: No change.
Committee Vote: 11-Green.
4. Section 3.7.5: Grease interceptors: Allow flow-through slot/port at same elevation as bottom of riser.
Comments:
 - No access for maintenance.
 - Do we know why there has been historical use of pipe and tee?
Needs research.
5. Section 3.7.8: Pump Tanks: No change. (Recommend not using graphic)
Committee Vote: 11-Green.
6. Section 3.8 (page 19): No change.
Committee Vote: 11-Green.
7. Section 3.9: Identification
Comments:
 - What is the need for this?
 - Stipulate the location of the identifying mark in the RS&G.
 - To be discussed later in the meeting as part of Issue 5.No committee recommendation.
8. Additional issues for Section 3:
 - Inlet-outlet (intercompartmental)
 - Grease interceptor (do research).
9. Sections 4.1.1 and 4.1.2: Replace both sections with: “Install tanks in accordance with the manufacturer’s instructions.”
Committee Vote: 11-Green.
10. Section 4.1: Add language in this section: “Manufacturer’s installation instructions must be submitted to DOH as part of the DOH tank approval process.” (not with every project)
Committee Vote: 11-Green.
11. Section 4.1.3: Require installation directions for cast-in-place tanks be submitted to DOH as part of the design submittal. (Note: already noted elsewhere in RS&G: decide whether to only put it here.)
Committee Vote: 11-Green.
12. Section 4.1.5 (page 20): Strike sentences 2 and 3. Section would then read: “Septic tanks and grease interceptors installed in series must be installed in such a manner to ensure positive

flow between the tanks at all times. The local health officer or the department may approve other acceptable methods.”

Committee Vote: 11-Green.

13. Section 4.1.6: Confirm that common products (adaptors, gaskets, couplings, etc) do meet the ASTM standards cited.

Needs research.

14. Section 4.1.7: **Committee Vote: 11-Green. Delete. (Let courts decide liability, not DOH.)**

15. Section 4.2.3 and 4.2.4: Testing. Current RS&G requirements for testing need to be consistent with the most current version of ASTM. Can be by reference instead of spelled out – which may become out-dated.

Needs updating.

16. Section 4.2: Water-tightness testing: to be discussed in July meeting.

Comments:

- Is it needed?
- How is it done?
- Who does it; who certifies it?

General Comments:

Committee recommendation: use graphics where possible in rule, but review carefully.

Task 2: Review Issues For Panel Discussion and Modify

Dave handed out an updated list of issues. The list reflects additions from April 15th. The panel briefly reviewed the list and was ready to move on to the Action Items from April.

Task 3: Action Items from April Meeting and Updates

Dave asked the group to turn their attention to the Action Items listed on the agenda. Panel members or DOH staff presented the updates and the panel discussed and recommended a next step(s) or a course of action.

Comments and Votes

17. Venting:

Only anecdotal knowledge.

Bring to RAP if studies found. (Inlets). Bob Sweeney

No change for now. Dave Lenning

18. Requirement for approval of designs by a Washington State Professional Engineer (P.E.):

- No response back from P.E. Board yet.
- Define “practice of engineering”: is use of a product (requiring P.E. approval) that is designed and stamped by a P.E. from another state (i.e. not licensed in Washington State) considered to be practice of engineering?

DOH report on at next meeting.

19. Cross-over tee vs. port/slot:

- Reference UW study (pg 52, 53, 58): conclusion is that port/slot appears to be acceptable.
- Can have higher cross-sectional area than the pipe diameter.

Conclusion: tee, port, slot all OK (Section 3.7.4).

20. Step System Question(s): Are there tank/vessel standards in Ecology's orange book?

- Yes -- general requirements for STEP systems.
- Material.
- Water-tightness: certified by a local authority.
- Many more tanks in a single system, so water tightness is more critical.
- Ownership may be different: public/municipal corporation ownership vs. LOSS: who's responsible for tank maintenance and repair?

Recommendation: Include STEP tanks in DOH tank regulations.

Additional Questions/Comments

21. Vote on 3 issues from April meeting:

- Add "adversely" to Section 2.1.5.2: may "adversely" impact performance.

Discuss in another meeting after DOH provides a definition for "adversely"

- Related to Issue 14: re: ...violations it might take to lose DOH approval – add "and complaints."

Committee Vote: 11-Green.

- Section 3.2.1.1 (Issues 7 and 8): Add "required" to liquid volume. "Total required liquid volume."

Committee Vote: 11-Green.

22. Will DOH investigate complaints on other products (tank appurtenances such as risers)?

- DOH wants them to be water-tight (e.g. riser connection).
- DOH will not have a product registration list.

DOH answer: NO.

23. Is modification to the riser considered a significant modification to the product design (that would trigger a re-submittal/re-approval)?

- To be discussed further in the general.
- Trash tank can be included in the design – precedes required tank volume.
- Must be maintained.
- Must meet tank structural standards and other requirements for approval.

DOH to define "trash tank."

Committee Vote: 11-Green.

Task 4: Homework Questions/Issues

Dave reminded the panel of the follow-up questions and Issues from the April meeting. Panel members asked questions, discussed the issues and voted on recommendations.

Comments and Votes

24. Issue #5: Section 3-4 (page 15): Access

Comments:

- Have to have access for effective O&M
- Expensive to modify forms
- 16” to 24” current sizes
- Diameter of the riser (at grade)
- Diameter at tank surface (top)

Committee Vote: 8 Green, 3 Yellow: 18 inch diameter minimum access opening at tank, if 2000 gallons or smaller in size.

Comment:

- Tank manufacturer should explain how their tanks can be accessed for O&M when they are making a tank approval submittal to DOH.

Committee Vote: 10 Green, 1 Yellow: 20 inch minimum diameter access opening at tank if larger than 2000 gallons. (Volume is the liquid volume of the tank: first 2 compartments.)

Committee Vote: 11 Green: Volume for access size at tank change: 2000 gallons.

Committee Vote: 11 Green: Top of riser, at grade for up to 30 inch burial: minimum 20 inch diameter.

Committee Vote: 11 Green: Top of riser, at grade for greater than 30 inch burial: minimum 24 inch diameter.

Comments:

- Concern for the marketplace (initial cost).
- Concern for large tanks: 20-24 inches is too small.
- Will utilities and O&M companies accept anything less than 24 inches?
- Will these sizes allow someone to break up solids (to pump tank) and/or sample?
- At least one county has a 24 inch minimum.
- If there’s a greater depth of bury, the opening should be larger: address in guidance?

Summary of Votes on Access issues:

Tank less than or equal to 2000 gallons	18 inch minimum tank opening
Tank greater than 2000 gallons	20 inch minimum tank opening
Tank burial is less than or equal to 30 inches	20 inch minimum access riser
Tank burial is greater than 30 inches	24 inch minimum access riser

Committee Vote: 10 Green, 1 Yellow: Must have riser at inlet.

Committee Vote: 10 Green, 1 Yellow: Must have riser at outlet.

Committee Vote: 2 Green, 2 Yellow, 5 Red: Must have riser at compartment wall (cross-over).

Committee Vote: 11 Green: For tanks larger than 2000 gallons, if there is not a port or slot, require a 6 inch inspection port at the compartment wall.

Question: Does the lockable lid provision include screws? Lenning: YES.

Committee Vote: 4 Green, 2 Yellow, 5 Red: Only slots or ports to be allowed at inter compartmental wall (no tee, etc.).

25. Section 3.4.6: Pump Access.

Committee Vote: 11 Green: Pump access for a tank 2000 gallons or less will be 18 inches minimum at the tank. Pump access for tanks larger than 2000 gallons will be 20 inches minimum at the tank.

Committee Vote: 8 Green, 2 Yellow, 1 Red: Pump access for tanks buried 30 inches or less will have 20 inch minimum at the top of the riser/at grade. Pump access for tanks buried deeper than 30 inches will have 24 inch minimum at the top of the riser/at grade.

26. Section 3.4.4: First compartment exceeds 12 feet in length, is additional access needed?

Follow-up - Research what other states do:

- What should minimum distance be between access openings?
- What length of compartment does this apply to?
- Suggest 8-10 feet between access openings.
- Suggest minimum 2 access openings per 12 foot compartment.

27. Issue #3: Should there be minimum and/or maximum volumes for tanks specified in the Tank Rule?

DOH will report LOSS Rule Advisory Committee comments back to Tank RAP.

28. Issue #9: When does a modification require a new approval?

DOH: check with other states for their view of this issue.

- Suggest manufacturer send a “notification” to DOH when a change is made (after initial approval). DOH reviews notification and determines if a resubmittal is needed.
- What is the structural impact if access ports are relocated?
- Current practice: ports are being moved without P.E. design review.
- More flexibility is needed for commercial applications than for single family residences.
- Does (or will) the design engineer give the OK for certain variability in manufacturing?
- What magnitude or significance?
- Does the modification need a P.E. stamp each time a change is made?
- What triggers re-review for registration?

Wrap-up

Dave stopped concluded discussion after Task 4. DOH will look at elements of Task 5 to see if we covered these items sufficiently.

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Adjourn: 3:35

In attendance

Technical Advisory Panel

Members

Tony Gillingham	Premier Plastics
Curt Davis	Davis Sales, Norwesco
Scott Erickson	Wilbert PreCast
Tom Rogers	Northwest Cascade, Inc.
Tim Wolfe	Evergreen Pre-Cast
Bob Sweeney	Environmental Management Systems Inc,
Mark Allen	Seattle-King County Health Dept.
Rocky Billings	Peninsula Tanks
Sam Carter	Orenco Systems, Inc.
Robert Nation	Fextex Systems Inc.
Jim Morgan	M-1 tanks, Inc.

DOH Staff

Dave Lenning	Wastewater Management Section
Denise Lahmann	
Mamdouh El-Aarag	
Melissa McEachron	
Linda Pang	
Jeanne Andreasson	

Guests

None