

Sewage Handling and Disposal Advisory Committee

September 18, 2009

Draft Meeting Minutes

Member Attendees:

Mike Lynn
Colin Bishop
Pam Pruett
Bob Lee
John Harper
Robert Wadsworth
Joel Pinnix
Joe Lerch
Barrett Hardiman
Allen Knapp
V'lent Lassiter
Bill Keeling
Bill Timmons

Non-member Attendees:

Ted McCormick
Dave Tiller
Mike Burch
Tom Ashton
Dwayne Roadcap
Jim Bowles
Duke Price
Bob Hicks
John Aulbach

See Appendix 1 for a copy of the Draft Agenda.

Approval of the agenda.

Committee members introduced themselves.

Allen Knapp had a couple of updates in old business, VDH/DPOR study, update on other regulatory activities. Motion for approval, 2nded, no opposition.

Approval of the July 17, 2009 meeting minutes

After asking whether changes were needed and none offered, a motion was offered, seconded and carried. The July 17, 2009 minutes were approved.

Setting of future meeting dates,

The committee discussed the Board of Health's meeting on October 23, 2009 and whether they would review the emergency regulations for Alternative Onsite Sewage Systems (AOSS). The Emergency Regulations might be in effect by December 2009. After discussing whether to meet before the Emergency Regulations take effect, the General Assembly session in 2010, the committee decided that the next meeting would be December 11, 2009 and another meeting on March 19 or March 26, 2010. Hardiman, Chairman, said that members would be polled as the dates approached to make sure it worked for everyone. The group discussed whether meeting at the Department of Professional & Occupational Regulation on Mayland Drive in Richmond might be a better location. Parking and facilities were better at Mayland Drive.

New Business: Discussion of Emergency Regulations:

The committee reviewed the process for developing the emergency regulations. Many of the members had attended the work-group meetings that the Institute for Environmental Negotiation (IEN) held. Hardiman reminded members about the statutory deadline to produce emergency regulations. He noted that the Department of Planning and Budget sets deadlines on agencies to submit their regulations for review and publication. Hardiman stated that the advisory committee should not prevent VDH from meeting any of its deadlines to get the regulations published. Hardiman noted that the Administrative Process Act (APA) did not require a comment period for emergency regulations. He asked the committee to focus its discussion on helping VDH meet its regulatory deadlines.

Allen Knapp walked the committee through a powerpoint presentation that he gave to the Rappahannock River Basin Commission about the recommendations that IEN developed with the work-group. Some who were listening in from video-conferencing noted that the audio quality was poor.

In his presentation Knapp noted the following:

- A. HB2551 stated that the Board of Health must adopt emergency regulations within 280 days. The operation and maintenance (O&M) regulations had to be consistent with code (Title 32.-164). He noted that HB2551 made changes to Title 32.1-163.6, which dealt with designs from professional engineers. The designs did not have to fully comply with the Sewage Handling and Disposal Regulations (SHDR) provided that they conformed to standard engineering

- practice, met the horizontal setbacks that protected public health, and complied with the performance requirements in the SHDR. Knapp noted that the current regulations had weak performance requirements because it is a regulation of prescription and not performance. Knapp offered that a performance regulation was missing and prevented full implementation of Title 32.1-163.6. In 2009, the General Assembly added a requirement that engineering designs had to be appropriate for the soil conditions and meet groundwater standards and comply with O&M requirements of the Board of Health.
- B. The stakeholder group with which IEN worked produced a final report on September 7, 2009. The final report from IEN discussed areas of general agreement: licensed operator visit within first 6 months and annually thereafter, O&M for non-single family should be based on flow and the land area that the system occupies, operator must file a report for each mandated visit and each reportable incident
 - C. For existing systems, there was agreement that they meet inspection requirements but should not be required to replace or upgrade any part to meet performance requirements of the emergency regulations. The operator must report all maintenance work. The IEN group said the operator should assess the sewage system, perform visual & field inspection. For non-single family, the operator should do all of the same things and include lab testing.
 - D. The IEN work group recommended that VDH establish program to verify treatment capacity and efficacy before treatment devices are allowed to be used. They recommended the list of horizontal setbacks to be expanded to include all drinking water sources and surface water bodies. The current policy was different, which presently said that engineered systems must meet shellfish, public water sources, and wells on adjacent properties setbacks.
 - E. The work group thought the VDH idea to set up performance to vertical separation with loading rates was a promising. The group did not discuss a number of topics and no agreement was found in other areas, such as renewable operating permit, closure plan with financial assurance for larger systems, lab testing on single family homes, building in fail-safe capabilities (e.g., stops forward flow or no interruption in treatment), product approvals, consumer costs, effects of sea level rise, role of telemetry, better performance of conventional systems, performance for conveyance lines, role of regulators, limits on adjusting a system (when does it turn into design or construction), and whether Title 32.1-163.6 system designs could be allowed to discharge directly into groundwater.

Following his presentation about the IEN work group recommendations, Allen noted that the deadline for DPB to review emergency regulations was November 15. To have DPB review the emergency regulations, include a 30-day comment period as required by the legislation, and promulgate regulations by April 6, 2010, VDH realized that September 9,

2009 was a watershed date. September 9 was the deadline to submit emergency regulations with the registrar of regulations to publish the regulations for a 30-day comment period to meet DPB's deadline. VDH submitted a notice to the registrar that will be published on September 28. The general notice would explain what was happening with the emergency regulations, how to obtain a copy of the regulations, and provide a 30-day comment period. The comment period will run from September 29 through October 28. At end of comment period, VDH will review the comments it receives, make changes that are necessary, and get the revised regulations to DPB before Nov 15. Because of the deadlines, Allen thought that the Health Commissioner would have to act on behalf of the Board of Health.

Joe Lerch asked about the IEN report and for a discussion of renewable operating permits. What was the discussion at the work group? He noted that a typical time frame for a renewable permit was five years. What was the disagreement with renewable operating permits? Allen responded that a positive of renewable permits was the opportunity to educate the owner about the requirements of his AOSS; one the hand, it was a lot of paperwork for VDH. Since there was an annual inspection of the AOSS, there was an inspection or operator visit at least once per year, it was likely that the same actions that would be required for a renewable permit would happen once per year and an opportunity for education of the owner once per year.

What about the other issues not discussed or not-agreed upon by the IEN work group? Allen responded that he thought these issues would come up and that there was time to deal with them in the comprehensive regulation and during the comment period on the emergency regulations.

Mike Lynn asked how the deadline dates related to the Board of Health (BOH) meeting? Response: The BOH meets on October 23, the comment period for the emergency regulations ends on October 28. The comment period opens before the BOH meets and closes after they meet. To adopt the emergency regulations, the Commissioner of Health would have to act on behalf of the BOH. Could they call a special meeting? Response: The commissioner has authority to act for the BOH when they are not meeting.

Robert Hicks responded that the BOH has a comment period at each of its meetings and that anyone interested could make a comment there. However, he did not think the emergency regulations were an agenda item at their October 23 meeting.

Initial thoughts of the advisory committee on the emergency regulations:

Hardiman said he wanted to start in the definitions section. They looked fairly standard to him but did anyone have specific questions?

Allen Knapp: Definitions are important, I think it is also important to look at Section 30, it's a lot there under Applicability & Scope of the regulations.

Joe Lerch: Definition of non-tidal, the definition of blue line on USGS. It could conflict with the Chesapeake Bay Act. Localities act on a different definition on what perennial means. He did not know whether the definition in the emergency regulations would cause a conflict with how local governments defined the term. He did not know whether the definition had to be resolved.

Some noted that the definition could be significant, especially in Prince William and Loudoun. Blue lines on USGS map do not have a lot of perennial streams shown, maybe VDH could refer to site specific county determinations. Another person noted that the definition used by some localities was based on guidance from the Chesapeake Bay Local Assistance Department (CBLAD). DCR staff could speak with the Division Director to come up with something to help resolve the issue.

Another person asked what was the DEQ definition? Someone responded 640 acres, 7Q-10 flow, or as determined by USGS. Joel Pinnix thought that local ordinances, even after HB1788, would still have local ordinances that would pre-empt the emergency regulations. He did not think VDH needed to change the definition. For those localities that had a different definition, then the locality's definition would apply. If there were a county specific requirement, then the simplest thing was to say that the stream was perennial. Perhaps you could add a scale, 7.5 scale. Allen asked the group whether anyone would take responsibility on following up on this issue. V'lent Lassiter and Bill Timmons said that they would respond with specific comments to VDH on the definition.

Mike Lynn suggested that the other part of the law said that if it were allowed by the state regulation, then the locality could not do anything to prevent the AOSS from being installed. Are we worried about the big perennial streams? Giving the locality the ability to install a different design that would not have to be installed somewhere else in another county would be problematic. He suggested that one definition was needed for all to use, he was hesitant to include a definition that is tied to guidance documents. Barrett Hardiman said that he was more inclined to use a standard definition. Mike Lynn: I can see situations where this definition could cause a different design,

Joel Pinnix: I don't know what the impact will be, this is only temporary? Do stream determinations, or within 1,000 feet, have to design to nitrogen loading, I can look at a blue line on published USGS map.

Joe Lerch: No time to stop on every point, that definition is very critical. I will engage in some legal analysis of the statute: the locality shall not have O&M standards more stringent? Ted McCormick agrees that localities can't prohibit installation.

Allen Knapp: There are two prongs in the legislation: O&M standards, can't prohibit, people will debate these two prongs, I'm not sure how the VDH should approach that problem, guessing the answers and crafting regulation is fraught with peril; if we can anticipate something, then ok, if perennial is not pre-empted, then nothing would change,

doesn't prohibit, it wouldn't prohibit and it is not O&M, then it would have no effect, the regulatory definition would not matter.

Can we get clarification on whether a locality's definition would supercede the state's definition? Joe Lerch: I'm not sure it's the VDH's role to seek legal advice on what the impact will be on locality ordinances. For counties without an ordinance, you need some base definition and the VDH regulations would help. This group is advisory, sounds like we won't have agreement on this issue. Joe Lerch and Barrett Hardiman may need to consult with legal counsel on how the VDH definition of perennial stream might impact local ordinances.

Allen Knapp: We have another year to work on this and there are likely to be more of these kinds of issues. For example, the definitions for secondary effluent (SE) and tertiary effluent (TE). Those definitions do not entirely fit with what VDH has been doing.

Clarification on "relationship with operator"; does that mean that there has to be a contract with an operator? What does "retained" mean? Response: This definition comes from VOWRA work-group, it ties to issuance of operation permit (OP). The concept is that when it comes time to issue OP, then the owner identifies operator, then the operator would confirm that he is the operator. VDH would have two acknowledgements to issue OP. VDH would not be party to the relationship, later on in regulation it says that if the relationship terminates, then the operator has to notify VDH. VDH does not want to review contracts, VDH's experience with contracts: you can name the three essential elements for a contract and then VDH gets 14 page document of legalese about limits of liability. Then VDH gets question about this or that clause in the contract and whether it negates a particular regulatory requirement. VDH does not want to be an arbiter of contracts between private parties. It is problematic to get involved in private party contracts so the regulation is looking for notice of a relationship only.

Discussion of Section 30 in Emergency Regulations:

First paragraph says this chapter governs all AOSS, Part III applies to all AOSS, including those in operation prior to the effective date of the emergency regulations, Part III requires a relationship with an operator and visits by an operator,

Part II is performance. Someone noted that the copies of the emergency regulations did not include page numbers so it was difficult to follow where language was located as it was being discussed. Allen noted that the prior minutes indicated that the advisory committee preferred that the lines be number. Allen apologized for the confusion and would try to remember to number lines and pages on future copies to the committee.

Table 6, field observation: This is what is retro-active.

Subsection C, the lab sampling of this chapter apply to only AOSS that are permitted on or after the effective date, no sampling required for AOSS that pre-dates the regulation.

Bob Lee: what about requirements already written into existing permits? Every permit is a state permit. Tough to know how many of these systems are out there. Talking about mass drainfield permits where performance limits are already set. Some of the permit limits are set by the locality. VDH could add exception for those permits that were issued with performance limits that pre-date the emergency regulations. In other words, the emergency regulation requirements only apply to permits going forward. The regulation should not pre-empt any pre-existing permit requirement.

Allen Knapp: As a way of introduction, VDH has tried to structure the regulation to essentially leave the SHDR and its permitting procedures and policies alone and intact. VDH wants to have no or limited changes in what's currently being done. The interesting result of leaving the permitting procedures and policies in place is that a lot of this regulation will pertain to systems designed in accordance with Title 32.1-163.6. If you changed the existing policies and procedures in place, then you have to change an entire program, essentially overnight, or in 12 months. VDH doesn't think this is the scope of this legislation. This chapter won't over-rule the SHDR, except with one exception (Table 5.4).

Allen Knapp: Part 2 of the emergency regulation applies to AOSS on or after the effective date. Not sure that's what VDH meant, I may need to go back and review this again. Subsection E says VDH is not going back to retro-fit a system to meet this regulation. Sections D and E work together.

Joel Pinnix suggest that the regulation might have created a "donut hole" for systems that were permitted but not constructed. Section E should apply to systems permitted and in operation.

Allen Knapp: Section F says this chapter and current program are deemed to comply with groundwater requirements. That's the fecal coliform standard, if you follow the regulations and current policies, then you are ok. Do you want to change it? Response: most agencies, for surface water, use E.Coli, which is a cheaper test. EPA says it's a better indicator of enteric disease. EPA and DEQ surface water is based on E.Coli. TMDL is being developed with E.Coli. Should the emergency regulations use E. Coli instead of fecal?

Allen Knapp: Section G is effective for 12 months; section H deals with 32.1-163.6 systems. GMP #146 will recognize the list of things these systems have to do. Moving to Section 40, relationship to other regulations, the emergency regulation is supplemental to SHDR and supercedes Table 5.4. Table 5.4 is the loading rates and current regulations for system designs. Response: Would systems permitted under GMP #147 be subject to this chapter? Response from Allen: When people run the numbers, I'm told it works. The "supercedes Table 5.4" phrase opens up a new category so that we designers disperse

secondary effluent (SE), they would need to verify that the design is below the maximum organic and hydraulic loading rates in the emergency regulations.

Doesn't that conflict with "deemed to comply" under Section F? If you are going to design something under Section 30.F, use Table 5.4 or GMP #147. That's why Section F says the regulations and this chapter. GMP #147 should go away because it is a circular reference. Response: No, GMP #147 would be changed with a new loading rate, GMP #147 loading rates should meet the expectation. Nobody says that it doesn't work.

Why do you need this statement about superseding Table 5.4? Response: It allows downsized drainfield for SE. You can do that under this chapter but it's not "deemed to comply." If you say, we take out the loading rate chart, now you've merged the two, only the groundwater standard would be separate. I'm having a hard time understanding why you need to supersede Table 5.4.

Allen Knapp: Section 40, all permitting, enforcement, case decisions, etc. remain the same as currently done under SHDR.

Allen Knapp: Section 50, violation of enforcement. Simplistic approach, not what VOWRA wanted, failure to achieve one or more of the performance requirements is a violation, with that language the LHD chooses how to handle enforcement in the same manner that they do today. How do civil penalties work with this? The schedule of civil penalty regulations is expected to be used as an enforcement mechanism.

Allen Knapp: Subsection C and D are catch-all phrases.

Allen Knapp: Section 60 prohibits landowner from recording the permit, On Section A, statement signed by owner and operator. Will it be a form? Response: hopefully it will be web-based. In the short-run, it will be on a form.

Allen Knapp: Section 70 is a many faceted rundown on the performance requirements, presence of sewage (with exception of spray), exposure to insects, back-up of sewage, treatment units designed at peak flow, minimum SE.

Response: Going back to #1, it is unclear on the last sentence, with these systems, I know you are talking about spray, but somebody could say "oh, that applies to all systems." What if you want drip on surface and let effluent soak in, spray irrigation and other dispersal systems would be a better phrase. Response: Ok, we can address that.

Treatment units are a defined term. Is there ever a debate about what a plumbing fixture is? Yes, some counties define it as a d-box, conveyance line, etc. More clarification could be useful. Could you say indoor plumbing fixture? Response: we have lived with this definition for decades. It's apparently a problem in a nameless place, the state up in the North.

Someone asked a question about treatment dosing to accommodate peak flow and soil treatment area for the hydraulic capacity: rule says you can't exceed the values in Table 1, area loading for drip and spray is recommended to be less than the maximum values. Why are we talking about trench bottoms instead of hydraulic loading rates? If we do pads, or drip, we look at hydraulic loading rate, and then distribute over that area. That's an area loading rate. Trench bottom is a lot higher than an area loading rate. Table 1 looks like an area loading rate to me. Area loading rates are one-fourth of Ksat values in mass drainfield.

The emergency regulations discuss trench bottom loading rates. You extrapolate an area loading rate from regulations, it's one third of the area loading rate. Someone disagreed: But that's not what the mass drainfield policy is, mass loading says you get hydraulic loading and base it on 25 percent of Ksat value. Joel Pinnix thought that the emergency regulation was a fundamental change. Allen asked whether anybody else thought it was.

Joel Pinnix: The regulation will make drip fields 3 times bigger potentially. I need to do the math, I think, I have to do the math. The emergency regulations are prescriptive in nature, I thought we were trying to get away from prescriptive requirements.

Allen Knapp: Joel and I have discussed this. Joel would prefer VDH to not have this table. Joel agreed: I don't think this table is needed. Leave it as: Treatment capacity shall be in accordance with underlying soil. Only apply to 32.1-163 systems, since VDH department reviewing them case by case, we could by policy say the loading rate is X, and if you exceed it, then you do Y.

Someone asked Allen to explain the HB1166 part of the discussion. Why won't the emergency regulations apply to non-HB1166 systems? Response: Well it does apply to non-HB1166 systems. GMP #147 systems meet these performance requirements. Previously installed drip, lpd, mass drainfield, puraflo, etc. meets these requirements. What about previously installed mass drainfield? If septic mass drainfield, then conventional system and not subject to this regulation.

Same thing for organic loading rates: Table 2, the organic loading rates shall not exceed these numbers for trench bottom. Area loading should use a reduced rate from what's required for the trench bottom. It is a should, not a shall so presumably a designer would not have to have a reduced rate. What's the purpose of having a should?

Collin Biship: The regulation is establishing hydraulic and organic performance and it applies to all systems, which is in the bill. It's reasonable to establish maximum performance thresholds.

What changes with the performance requirements from what is being done today? Right now, septic LPD on perc rates faster than 45 mpi, Septic LPDs will get bigger, bumped to a 60 rate based on the organic rate. Gravity systems not affected. Based on 18-inch

separation because it's septic. Someone commented that alternative systems would be bigger than conventional systems in sandy soils.

With SE, your organic load goes down by a factor of 20. Septic system does not produce SE. #9 reference to treatment area. There is a conflict between #5 and #9, septic tank is not a treatment unit, then why is #9 needed? #5 and #9 don't appear to be consistent. #5 doesn't apply to everything. Septic tanks are excluded. It's something different. But LPD is alternative system. Loading rates apply.

#10, Does this requirement change anything with GMP #147? Response: Yes, the change, where-ever there is a GMP #147 system with less than 12-inches, then it requires disinfection. It's a change, it is a substantial change, what's the reasoning for such a change? What about all systems permitted but not installed? Do they have to have disinfection now?

A lot of stakeholders expressed discomfort with systems less than 12 inches to a limiting feature. The assumption is that systems always work, but they don't, there is a less safety factor unless you disinfect.

Collin Bishop: What about fail-safe? There is a disconnect in the process. If you want to enhance this regulation, you could do a lot besides throwing disinfection on the end. Key is the definition of TE, it is not a wastewater term. It's an effluent quality term. BOD/TSS never killed anybody. Disinfection is to address pathogens. The point is that there are other methods to reduce log fecal, including fail-safe and by-pass. There was a 5-year field study that says disinfection is a flat out requirement. You could put out drinking water and still have to disinfect. My advice is not to be married to disinfection only. Step chlorine tablets that swell up with a once per year check is not adequate. Tablets only last two to three weeks. Who's putting in new tablets? Let's get it right, you are tying yourself to old thinking, let's slap disinfection and make it ok. There are severe limitations to disinfection, time is limited, tough to pull together, lots of things to deal with in the regulations. Response: Disinfection is defined, it is one of many processes, you could run it through a polishing sandfilter for example. I think the regulation is ok as written, treatment is not limiting, it could be a membrane, which is a process.

Another person commented that the first use of vertical separation is ok, second use of it may not be. I think you want 6-inches of vertical distance, it is a defined term, you are talking about naturally occurring soil, if you have less than 6-inches of unsaturated soil or seasonally saturated soils, then you want this additional treatment, you are using defined term inappropriately there. Another person responded: I think it is ok, the distance between the point of application or limiting condition, the rule doesn't say whether it is naturally occurring or not. Anybody else having trouble? VDH could do an A and B section there, bullet point, whenever A, then ... or B,

#11, this is supposed be what we currently have, what about the 120 mpi? If not in the emergency regulation, then you go to the current rule. Water mounding, it says flow greater than 1,000 GPD, what about things like the Beacon Hill development, each of the systems are on an easement. The systems do not meet the definition of mass drainfield and we did not try to resolve that problem.

#12, groundwater standard, Bill Timmons agreed to provide Allen Knapp with language on how to write this section. I recommend that you consult with DEQ about what the standards are. 200 cfu/100 ml is not lower with E.Coli. It's changed, must meet instantaneous and geometric mean. Find out what DEQ is looking at.

The ammonium nitrogen addressed elsewhere, is it necessary? Where else is it addressed? We had definition. Secondary treatment definition is where it is addressed.

#13, It is a formatting problem. The table goes with #13, the following minimum site conditions and effluent, then Table 3 is supposed to be under that heading. Ammonium shouldn't matter, it's a measure that you did a great job of nitrification.

#14, Nitrogen, mass loading, concentration limit in #15. Comment: if groundwater is above 5mg/l, should it be 5 or "not to degrade above". Can I build? If groundwater is 7 mg/l, your discharge limit is 5 mg/l. You are cleaning up. I don't think this is what this says. Currently, mass drainfields subject to 5 mg/l and allow dilution method for mass balance, now it applies to single families as well as lbs/day/year. Where did the numbers come from? They were suggested to us by stakeholders, loosely representative of what DEQ allows in point source discharges and factoring back on contributions of nitrate, certain reductions, distance from water, plant uptake. Applies statewide. Might want a technical document to show your calculations.

Are we assuming only from the AOSS and not from additional applications, e.g, fertilizer from homeowner, etc. You wouldn't have to calculate that, ok, but DEQ requires you to figure that into your analysis. If you feel strongly about it, make a comment on it.

Conveyance, #20, agreement with DEQ, if submitting under 32.1-163.6, soil characterization is from GMP #146, D. septic prohibition for large systems.

Section 80 is about sampling. Owner is required to get the operator involved. From a DPOR meeting, when it defines ownership, it says install, own and operate. Some at DPOR are saying that the owner has authority to operate his own system. There is a definition of owner in the Code that says "operate."

Section C, treatment unit not received general approval, sample every 6 months and annually thereafter, How about "designed to discharge" systems?

E, you don't have to sample a septic tank, also, this regulation incorporates the pump out requirements of the Chesapeake Bay pump-out. It should refer to the Chesapeake Bay

Preservation Act. Will the LHD enforce Chesapeake Bay pump-out requirements? Will the locality enforce or does the LHD enforce pump outs? Local programs don't have enforcement. The intent, if the statute pre-empts local ordinances, then it pre-empts Chesapeake Bay, it's a bad idea and do not want to pre-empt local ordinances on Chesapeake Bay protection. What about conventional systems? Only applies to AOSS.

Sampling and monitoring are mostly adapted from the SCAT regulations. What about health department that wants more than a grab sample more than once per year? It could be written into permit, you would need to go into enforcement and commissioner can require taking of samples. Allen Knapp said VDH would look at this issue. On one hand, allowance for additional sampling can be a cause of concern since the agency has a license to torture. Obviously, we don't want to do that, but we don't want to tie our hands either.

Section 90, field tests and observations. The ad-hoc committee had a lot interest with this section. Comment: performance requires SE based on monthly average: how does this get to you a monthly average if you are not taking enough samples to get to a monthly average? Grab sample becomes monthly average unless owner/operator elect to take more samples. If the result says BOD of 105 mg/l, and supposed to be 30, how do you determine compliance if it is supposed to be a monthly average? For local health department to take enforcement, we need some idea of what you can do and when you can do it. If you can't use sample for compliance, it doesn't make sense, grab sample once per five years is meaningless.

My understanding was that sampling was for the Health Dept.'s database rather than for compliance on individual systems. Maybe a high sample is an issue or maybe it is not. What's the purpose of the sample?

Allen Knapp: Looks like I need to change the column to reflect the once every 5 years.

Why take a sample every day for a 30-days to get a 30-day average? Local health department can't do that to determine compliance. Trying to lump small systems and big systems together is difficult. Sampling small systems for individual compliance is difficult to implement. Small systems, the operator's judgment will have to be key. Sampling small systems for field verification on a population of systems to see that we are getting effective treatment is meaningless with a sample once every five years. Again, what's the value of a sample once every five years? On larger systems, composite sampling and averaging samples is appropriate. 200 cfu/100ml should be a geometric mean. Maybe look at instantaneous value instead of arithmetic mean. I have table that EPA used on the limits of a single sample that I'll share.

Part III, Operator responsibilities, have to file a report, must accomplish everything in the regulation, requirement for a log, make it available, D says you have to inspect it all, E tells us when you get fired or owner moves.

Section 110,

Think we want to require pumper to file a report. Should be web-based, DPOR is requiring them to be operators. Have to look at Section 170, if pumping event, you are going to file a different report, not expecting pumper to do all those things

The regulation has a catch-all for owners, keep copy of O&M manual.

Section 140 was started by copying table from SCAT regs, references Section 300, outlines how many hours the operator and treatment works have to be manned, not always the same. Section C, DEQ says you don't need an operator for 40,000 to one million if systems use natural processes, this section overrides that and says you do need an operator.

Section 150 is O&M manual, unsophisticated approach. In the SCAT regs, they have whole program on O&M manuals, this does not supersede the SHDR, supplemental to those regulations.

Section 160 talks about what happens when an operator visits, subsection C is a recommendation from ad-hoc committee, if maintenance needed (e.g., the system is working fine but will need a widget in the next 6 months) but there is I&I, the VDH doesn't want to make that a mandatory enforceable item when the performance requirements are met. This language dances around it. Operator reports to owner, when the system stops meeting performance requirement, then enforcement begins.

Section 170, dollar fee, web-based, owner name, cite address, etc. Need that info or we don't know what that ticket is for. All will be filed electronically. Why don't those things suffice as the log. The record of those things is the log, or should be, VDH only requiring reports on high level events, lots of low level events, not everything needs a report, tells us what you don't like, it makes double entry and possibility for multiple entries is the problem. Working with Ad-hoc committee, the concern was about continuity with operation, new operator, if all you have is last year's report, then there was this idea that you needed a log for the next guy operating the system. It is an imposition on the operators and that translates to a cost to the owner. Recommend VDH remove or change this requirement.

Previous Section, Listed C.1, do you mean VAMAC or May Supply or do you mean model numbers? Need contact number for replacement parts, that comes from SCAT regulations.

Section 180 is the horizontal setbacks, there is no chart, it is supplemental to SHDR, what's not there? Under 163.6, you can't vary from the distances, except in cases of repair. I ran across a situation for existing sewage system, elderly lady, had a privy, the 100-foot radius incorporated her entire lot except one spot where the drainfield was going, she has a habitable structure, it's not a repair, I thought getting rid of a privy was

considered a repair, existing well is about 80-feet from the privy. Response: discussion at ad-hoc committee. They recommended that VDH continue to use the existing variance process for situations like this.

Broad definitions, privy and pump & haul is alternative, this is not addressed here. Are you going to make me say that a privy is not alternative system? Counties could make a big deal with pump & haul since pump and haul is considered an alternative system.

Old Business:

Mike Lynn Discussion: Bob Lee presented the residuals document at a prior advisory committee meeting. Excerpts handed-out to advisory committee on work-group recommendations. The important part is the process to identify 8 major concerns on how to handle residuals. We did not address Pump & Haul, and there are things that would change with respect to operator requirements. According to DPOR, the act of pumping or removing solids from a conventional system requires a conventional operator license. The act of removing sludge of a septic tank from an alternative system would require alternative license. There was a big meeting in NOVA. Pumpers expressed displeasure. David Dick said he did not care who drove the truck but the guy holding the pipe had to have a license. It gets into some other discussion, is any of this under the direct supervision? Requirement seems messed up: to get sewage handler's license, you need a truck, without a truck, can't get a license, gist is this: none of this is addressed in the emergency regulations, it's Allen's desire to have this part of the permanent regulation.

We do intend to get the committee back together to discuss residuals. The work and paper is on VOWRA.org, including Bob's presentation. For highlighting, it's the intent of the work group that the manifest track where the sludge came from and where it went. It would become enforceable action if not taking it where it was supposed to go. Unless septage is not going to approved receiving facility approved by DEQ, we looked at strange nuances, what if handler was taking it back to his shop with arrangement to dump in manhole at his shop? Would VDH have to inspect that facility because it was not a DEQ regulated site? Inspecting for spillage at the pump & haul site? If you pump grease traps, then no sewage is there, pumpers that just do grease traps are not required to have permit from VDH. Some pumpers that do both—pump grease traps and septic tanks. Probably not a reportable event for pumping grease traps, talked about things other than the sludge, pumps, grit, rags, etc., need a best management practices manual.

Portable toilet issue, that's a whole different mess, Loudoun just installed expensive membrane system and they can't take portable waste, it has to be the cleanest sewage around to take it. That plant puts out drinking water but they significantly underestimated what would come in from pump trucks, my trucks turned that plant into a problem. Pumping options are getting fewer and fewer. There is a part of the regulations, treatment facilities built, must accommodate septage and sludge. Because it is in cities & towns section of the code, DEQ can't enforce it, the requirement is not with DEQ, they can raise a flag but can't turn down the plan. On the other side, significant

barriers for company to set-up a private septage receiving facility, on eastern shore, the only one out there is out of business, have to haul across the bridge to HRSD, cost is now \$500 because of the travel fees, especially if we are going to be enforcing Chesapeake Bay pump out, you may see pump out frequencies get longer, some systems need to be pumped every year. The trend for septage & sludge being generated and accepted is a concern. For facilities in the Bay program, treatment plants are arguing that handling septage is messing up their allocations, if we stopped septage, we wouldn't need to upgrade the plant, who does this problem go to? No industry organized group. Committee will get back together and codify it for the permanent regulations. If VDH is going to require reporting, then they should work with DCR to get the information to EPA, there is some data that EPA would like.

How many community systems are on the eastern shore? 10-12, no place to take their sludge except to HRSD or to Maryland. In Loudoun County alone, we're talking about millions of gallons per year. Maryland has 500,000 to pay for nitrogen reducing technology, implementation is whacky but money is there by charging a nominal fee on pump-outs.

Allen Knapp: I had committed to presenting the documents with line numbers. The collection & conveyance document has been sent out, no one has commented on it. Bob Lee commented on it and I don't know where they are. Where is Bob's comments? Who is the primary contact on this issue? John Schofield is the primary contact.

Update of other issues:

Two Bills in legislature: one about the engineering exemption to include a larger class of pump/pressure systems, primarily drip, both of those bills were referred to DPOR and VDH to study, the two agencies and the various stakeholder groups, ACEC and VSPE met with American Manufacturing, maybe 4 meetings, meetings concluded with no agreement, no draft legislation, no consensus for a way to resolve the particular issue. There was an agreement but it fell apart.

We have several other reg actions, regs for indemn fund, been through comment period, going forward as final regs, will present to BOH at their Oct. 23 meeting.

Weldon Cooper survey update. They have finalized questionnaire to owners. They are setting up the calling survey.,

Civil Penalties, same as indemnification fund regulations, they will be presented to BOH on October 23.

Changes to well regulations on yield and storage, result of legislation, going forward on fast-track process, deadline at DPB is October 15 must be done before BOH, ask Commissioner to adopt, we think they are non-controversial. Express wells for geo-thermal. Are there larger issues with the well regulations? When did VDH complete a

periodic review of the well regulations? Duke Price: The quick answer is yes, they could be updated, but we don't get complaints and are not a high priority with everything else we are working on.

For citizens & interested parties, will they be able to see the yield and storage rules before the BOH meeting? I know they are on fast-track. What I saw, the regulations just changed "should" to "shall." The fast-track process has a number of opportunities to freeze or stop the process, they will be open for public comment. They are cut and paste, almost literally, from the code.

With no further discussion, the meeting adjourned.

Appendix I:

**Sewage Handling and Disposal/Authorized Onsite Soil Evaluators
Advisory Committee Meeting
D R A F T Agenda September 18, 2009
10:00 AM
Richmond, Virginia**

Administration

- Call to Order
- Approve Agenda
- Review and Approve Minutes of July 17, 2009, Meeting
- Set future meeting dates

New Business

- Emergency Regulations for Alternative Onsite Sewage Systems Allen Knapp
 - IEN Final Report
 - Draft Regulation (if available)
 - Timetable for adoption

Old Business

- Residuals Workgroup report Mike Lynn, Bob Lee
- Collection and Conveyances update Allen Knapp
 - New version with line numbers
 - Comments received

Adjourn

- 2:00 pm

Attachments:

July 17, 2009, Draft Minutes
IEN Final Report
DRAFT Emergency Regulations for AOSS
Collection and Conveyances (w/line numbers)
Residuals (?)