

June 15, 2009

Ad hoc committee for 32.1-163.6/VDH GMP #146

Notes from meeting- Allen Knapp, Author

1. Review notes from May 29, 2009 meeting...no comments
2. Review draft of rewrite of GMP 146 based on last meeting...first change- add language from HB 2148 pertaining to site and soil conditions...designs shall be appropriate....last time the group engaged in discussion...reflected in the notes...group decided that the policy did not need changes, but the policy should recite the language from the Code....Chuck Nelson- asked for further discussion...Eric- what appropriate means to me is what is appropriate to the engineer...and second what is appropriate in the mind of the reviewer....gives the designer a lot of leeway....can't do this sitting at a table...has to be on a case by case basis...hard to put a number on something that goes above and above the regs...Chuck- can't VDH make a determination of what appropriate means? Others- VDH does that via the regs...and this law goes beyond the regs....Chuck- position of VAPSS and myself- if the engineering community is going outside purview of their own companies to do soil evaluations, they should be going to certified soil scientist...Rick Blackwell- you can't go outside primary place of business and use your PE seal...i.e. I can't go out and moonlight soil evaluations and submit to Blackwell engineering. Chuck- if the PE is going to go outside the company letterhead for soil evaluation they should be going to a CPSS. Question-what about AOSEs? Chuck- HB 1166 systems are not subject to same review and controls as AOSE program...therefore need to go to the profession who has demonstrated greatest knowledge and skills...best interests in the health and safety of the citizens...Allen= what we have is really a discussion about the practice of engineering...at the last meeting we decided we would remove the recommendations for who would or could do an evaluation...so as not to show any sort of favoritism...so it's really up to folks at DPOR to determine what's appropriate for engineers with respect to soil evaluation...Chuck said for the sake of the discussion he was willing to rest his point for now....on to a discussion about language change regarding engineers doing soils evaluations, three paragraphs starting with "Prior to the issuance of this policy..." Suggestion- change the words "duty to accurately characterize a site..." to "site evaluator shall accurately characterize..." Allen asked for consensus on this change- discussion about the word "accurately" Rick- I don't care about the color, what I care about is whether it will take water...about the physical properties of the soil...Others- color is part of the overall assessment of the site....Joel would drop the word accurately...Others- maybe the word "appropriate"....Chuck- would be ok with dropping the word "accurate" , but we need an additional reference to the NRCS Handbook , which describes allowable variance from certain criteria (i.e. color and texture)...Consensus to strike the word "accurate." Moving on to a discussion about what is required of an engineer- letter from Nosbisch quotes DPOR regs pertaining to other professions...General- it's like a PE doing surveying...has to adhere to standards for surveying...or architecture...this is a criteria that goes above and beyond the law and I don't think you have the

authority to do it...Others (Joel, Marcia) suggest the PE you can still do whatever evaluation he thinks is appropriate...but you still have to put it in standard language when you submit it to the health department. Allen- I would argue that DPOR's reg ties the engineer back to the minimum requirements of other professions (i.e. soil evaluators for onsite sewage systems) and therefore this question falls into "standard engineering practice." General- several members of the group have a problem going back and revisiting things we had come to grips with a year ago. General consensus to move on...not everyone likes this...but we need to get to discussion of HB 2551...quick review of changes to accommodate discharging systems....Back to discussion of Item 7 under Procedures...essentially, the PE is responsible under "practice of engineering" to make sure he has properly characterized the site...may or may not submit individual borehole logs...

3. Discussion of HB 2551...what are the "discharge, effluent, and surface and ground water quality standards" Rick- I would read these as separate standards-discharge...effluent...surface and ground water quality....Allen- I would look at the sentence and work backwards- Chapter 6 means Chapter 6 of 32.1...and the two regulations authorized under Chapter 6 are the alternative discharging regulations and the onsite sewage regulations...and what does the word "otherwise" mean in the sentence...General discussion...would it have the same meaning if the word 'otherwise' were not there? Maybe....so, when we look to the regs, what are the standards? Would standards for a permit issued under a variance apply? What about experimental systems? Argument- when onsite regs require secondary effluent, these designs would also have to meet secondary (or exceed)...Dave- are there any other effluent standards? Yes, there are discharge standards from DEQ....Schofield- there is also a 10/10 standard for alternative discharge systems...What about the systems/standards contained in GMP 147? Answer- those aren't under the regs...they are variances. Allen- but they are permits issued under the regulations. Mike- what do you do in more marginal situations (i.e. those that go beyond what's in the regs for secondary effluent)...Testing for consensus- is it the consensus of the group that the statute speaks to only those standards that are written in the regulations, to the exclusion of other standards that might exist in variances, or experimental testing? No....Allen asked for consensus on this statement- when we look for effluent, discharge and ground and surface water quality standards for these systems, when it comes to systems that discharge via VPDES permit we will look to the alternative discharging regulations and when it comes to onsite systems we will look to the onsite regs.....Generally yes, but...Mike points out that we are going to have to address treatment (onsite) that goes beyond 30/30 for sites that are more limited than what the regulations allow for 30/30 effluent...he is arguing that the onsite regs are weak with respect to surface water standards....Others point out that in the onsite regs, that is generally handled via horizontal setbacks...Discussion about nitrogen for larger systems- Marcia asked if VDH nitrogen policy applies....Allen said that the group talked about that at the first meeting and concluded that standard practice would require the PE to make sure the design will not exceed DEQ's antidegradation policy...and we didn't think it

was necessary to make that explicit in the policy...so essentially, VDH mass df policy is still applicable....Discussion about onsite systems- Allen reiterated the provisions in the regs for secondary effluent- same loading rates as septic effluent, relaxation of separation distance from 18 to 12 inches, reduce installation depth from minimum 18 inches to 0 inches. Discussion- 10/10 was a standard that was developed to facilitate disinfection....regulations allow application of secondary effluent with 12 inch separation to seasonal high water...the standard under the regs is septic effluent plus 18 inches of unsaturated soils...or 30/30 with 12 inches of unsaturated soil...Anish- justification for going to higher loading rate from 30/30 to 10/10 is probably overstated...there are other factors at work...buffering in the soil environment...John Payne- NC has three treatment standards- NSF 40, TS1, and TS2...Anish- if septic effluent at 1 gpd/sf and 18 inches of separation is "perfect"...then we can work from there...but what we must do is not eliminate sites....no bad sites...Rick- we are assuming that septic effluent plus 18 inches of soil is the standard...I could go to 30/30 and increase the loading rate beyond what the regs allow for 30/30...Mike- but that wouldn't achieve the standard of the regulations...Rick, but what if I can justify the design based on organic and hydraulic loading rates....Joel, continuing the discussion about organic and hydraulic loading rates....I do the calculations based on organic load...and my load based on the treatment I have chosen is say, 1/5 of what the regs allow, I should be golden. Dan – discussion of the ratios (loading rates) in the regs...[the notetaker lost it for a few minutes]...return to discussion about the standard of the regulation- 30/30 and 12 inches of "good" soil...Where is the compliance boundary? Rick- since treatment works includes the soil, the compliance boundary has to be below the soil (i.e. below the treatment works)...Anish- the regs allow no reduction in df size...so if I go to 30/30 and cut the df in half, then I am still within engineering limits...Marcia- suggested the new language doesn't change anything...Mike- saying that this doesn't change anything doesn't do justice...it's like saying let's ignore it, there's a standard in the regs and we don't want to deal with it...we just want to revert to "no sewage on the ground." Rick is arguing that the statute actually allows for less protection than the regs....the group struggled to grasp why he believes this...that the effluent standard of 30/30 applies somewhere in the ground under the "treatment works." Dave- it looks like we aren't going to solve this today....think about what the qualitative standards of the regulations are...Marcia's suggestion- let's accept as a null hypothesis that the law changes nothing...let those who think that it does change something put the specifics in writing (email to DAVE) and then that will be the basis for the discussion next meeting. Next meeting is June 26, 9-1:00.