Comments on June 2020 draft – GMP 147 transition to SHDR

Response to Questions of June 17, 2021, SHADAC meeting on Fast Track Reg Action for GMP 147

1. Height of Control Panel

Current Wording: “The control panel shall be located to allow for access and shall be set a minimum of 30 to 42 inches above the finished ground surface elevation.”

Issue: SHADAC directed to remove maximum and use electrical code requirement for setting the bottom elevation.

Discussion: VA recognizes the 2014 National Electrical Code (NEC). The NEC does not have a minimum height for a control panel or a master disconnect. NEC specifies the maximum height of a panel (6’ 6” or 6’ 7”) and the clear working space in front of the panel, but not the minimum height off the floor. If VDH wants to set a minimum height, consideration should be given to minimum height to work on the panel and inaccessibility due to snow. We heard in several meetings that practioners like to sit on a 5 gallon bucket and work on the panel at a minimum. A 5 gallon bucket is 13 inches tall. Setting the minimum at 30 inches will allow an average person to be eye level with the panel when sitting on the bucket. Thirty inches was also the most common minimum distance that was reported during the various meetings on this issue.

Suggested options:

* Option A: “The control panel shall be located to allow for working access and the bottom of the control panel shall be set a minimum of 30 inches above the finished ground surface elevation.”
* Option B: “The control panel shall be located to allow for working access, taking into consideration the finished ground surface elevation.”

2. ‘Soil Cover’

Current wording; “Soil cover shall support vegetative growth”

Issue: Wording is vague and does not relay true objective.

Discussion:

* Remove ‘shall’ and substitute ‘soil cover is capable of supporting growth’
* Fosters, favors, makes grass grow. Does not structurally support growth
* Suitable to establish vegetative growth for the purpose of avoiding or minimizing erosion; of a quality and character suitable to establish vegetative cover.
* Lime and fertilize; consistency of material applied and no visible organics, no clay balls, and limits on stones.
* No TG III or TG IV soils
* Use soil and soil amendments necessary to establish aggressive turf to protect the system
* ‘The soil cover shall be applied to allow for an approximate depth of six inches after settling, and the mound shall be crowned to promote runoff. Soil cover shall be of a quality to allow oxygen transfer and growth of vegetation.

Wording Options:

* Option A: The soil cover shall be of a quality and character suitable to establish vegetative cover.
* Option B: The soil cover shall be of a quality and character suitable to establish vegetative cover. Soil amendments may be added to promote vigorous vegetation growth.
* Option C: : The soil cover, with amendments as needed, shall be of a quality and character suitable to establish vegetative cover and promote oxygen transfer to the soil absorption field.

3. Orientation of pads/mounds

Current wording: 966.C. Pads are generally installed on contour with the longest dimension of the pad following the contour. Minor deviations from surface contours are acceptable as long as the bottom of the pad is level (at the same elevation across the bottom of the pad), and intersects a similar soil horizon across its surface.

Issue: Confusion over the meaning of ‘on contour’. See graphic below as to intent.

Proposed wording: The longest dimension of the basal area of the pad, its length, shall be oriented parallel to the natural surface contours. Minor deviations from surface contours are acceptable as long as the bottom of the pad is level (at the same elevation across the bottom of the pad), and intersects a similar soil horizon across its surface.



4. Distance between pads 966.D

Current wording: “Pads and trenches may be used together in a single system when each zone follows the design criteria found in this chapter and are separated by a minimum of 6 feet between the sidewall of the pad and the trench. When multiple pads are used on a site, the pads must be separated by the width of the pad as measured perpendicular to the slope. This separation applies to reserve pad areas as well.”

Issue: The definition of length vs width is not clear.

Proposed wording: “Pads and trenches may be used together in a single system when each zone follows the design criteria found in this chapter and are separated by a minimum of 6 feet between the sidewall of the pad and the trench. When multiple pads are used on a site, the pads must be separated by the width of the pad as measured perpendicular to the natural surface contour. This separation applies to reserve pad areas as well.”

Additional SHADAC Comments

1. 880.D. Add the phrase ‘does not include pumps integral to treatment units’.
2. 880.D.4: reference LPD and enhanced flow sections from 880.B.6
3. 950: Asked SHADAC if there was justification to reduce the trench depth for gravel trenches to 8 inches. No comment, no support. – no change proposed.
4. 950.K.7: Curtis - do we need to add a qualifier to add in that the deviation is tested by the manufacturer.

Valerie - does the manufacturer have to test all configurations or can they state that new configuration will work (stand behind them). If we've accepted statement in the past, should be ok.

Curtis: 7 may not say what we think it says. we want to say that manufacturers can deviate

Tom: they need to comply with NSF 40 standards

Marcia - they are required to have the minimum area for treatment but then may be larger so that the dispersal component is met.

1. 966.F.: limits recirc systems and single pass filters that dose at > 10 times per day

Curtis- why was it added?

Marcia - added to allow for better distribution

Colin - they have product approvals with higher doses

Valerie - get to the reason for it - want to get to uniform moisture. at a frequency to accomplish goal

Take out the maximum dose frequency

DEQ

* Section 880.B.6: “The control panel shall be located to allow for working access, taking into consideration the finished ground surface elevation.” ***[VR, DEQ – I support this option as it provides greater flexibility where there will be a lot of variability, and for a non-critical issue.]***
* Section 950.K.3: The soil cover, with amendments as needed, shall be of a quality, character, and fertility suitable to establish a vegetative cover that is uniform and sufficiently mature to survive and inhibit erosion. ***[VR, DEQ – this suggested language is based on 9VAC25-840-40 of the Sediment and Erosion Control Regulations, which state that a “Virginia Erosion and Sediment Control Plan must be consistent with … 3. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.”]***
* Section 966C: The longest dimension of the basal area of the pad, its length, shall be oriented parallel to the USGS topographic contour line closest to or within the pad area. Minor deviations from topographic contours are acceptable as long as the bottom of the pad is level (at the same elevation across the bottom of the pad), and intersects a similar soil horizon across its surface. ***[VR, DEQ – Illustration is very helpful.]***
* Section 966: Pads and trenches may be used together in a single system when each zone follows the design criteria found in this chapter and are separated by a minimum of 6 feet between the sidewall of the pad and the trench. When multiple pads are used on a site, the pads must be separated by the width of the pad as measured perpendicular to the USGS topographic contour line closest to or within the area of the pad. This separation applies to reserve pad as well.” ***[VR, DEQ – suggested language is consistent with other suggested language for 996.C.]***

Joel Pinnix

* Section 880.B.6: The bottom of the panel is not an issue – except for old fat people who can’t access low panels.  Regulation should not be written for comfort of the operator.  I carry a tarp, and frequently have to sit on the ground to work on low panels.  It’s a pain, but unless there is a specific code issue, leave it be.
* Section 950.K.3: Septic installers are not landscapers.  Contractors use the excavation spoils for cover, frequently clayey wet soils.  Is it VDH’s regulatory position to dictate the “yard condition”.  Again, I find it gratuitous that VDH would even consider the type of yard an owner gets at the end of an installation.  Are you a regulatory agency with police power or a Property Owners Association?  Would a putting green suffice?  Want to pay for that?  Most of my clients simply want something they can mow and will add amendments as needed after the fact.  My typical contract spec is to rough grade disturbed surfaces to drain as much as practical, seed and mulch.
* Section 966.A: What is the tolerance for level?

Section 966.D: What is a zone?  How do you characterize the loading rates of trenches and pads?  You might want to GOOGLE “bed” type designs – EPA has some guidance.

VDH – Local Health District(LHD)

* Section 880.B.6: Can the check valve be located upstream of the shutoff valve and union to prevent effluent from dewatering the force main when servicing the pump? [Discussed with HD and explained that the shut off valve is intended to hold the water in the force main when servicing the pump. No change needed. ]
* Section 950.K3: Is the 6” of soil cover after compaction or settling? I have seen ATL’s inspected when constructed with 6” of loose soil knowing after settling it will be less than 6”. Have asked for additional cover to allow for settling. [Good point, will address.]
* Section 966.E.:Are systems like ATL defined as Pads or Mounds if installed at surface using a sand pad? I think the current design manual allows for slopes up to 30% using a PAD. [The sand lined type systems generally have different configurations so they could be trenches, pads, or mounds. Will review the max slope and recommend an exception to the 10% max slope if addressed in the design manual for a product.]