

# Joiner Engineering LLC

See attached document.

Comments on Draft Chapter 72 proposed amendments and mound/drain field design that should be addressed.

1. 18 AAC 72.090 (c) – surface discharge on own lot is satisfactory, only a nuisance if on adjacent property. Nuisance on own property satisfactory?
2. 18 AAC 72.100 (a)(4)(B) – should include all petroleum tanks, excluding propane and natural gas. Is gen-set diesel any different from heating oil? Does not apply to  $\leq 500$ -gallon in aggregate storage of petroleum products. Does this mean it is satisfactory to have 500 gallons of diesel a foot from a well? How about secondary containment, Spill Prevention Control and Countermeasure Plans, so the home owner is aware of the potential danger?
3. 18 AAC 72.110 (c)(1) – does this mean that the Municipality of Anchorage (MoA) regs can be used in other parts of the state, since MoA regs are at least as stringent as DEC regs?
4. 18 AAC 72.511 (c)(2)(A) & (B) – Confusing – lab sieve analysis or PE soils report and perc test, then mention perc and loading rates in Table 4. Should combine.
5. 18 AAC 72.530 (f)(6) – Why can't monitoring tubes be placed near the crown of leach chambers instead of in the distribution media? Why can't they be cut off at or below ground if marked with metal for metal detectors and or swing ties to permanent objects if the owner wants to use the area without the monitoring tubes?
6. 18 AAC 72.530 (g)(3)(A) – Why must the minimum pump chamber size be 350 gallons? Orenco and other onsite manufacturers make package pump vaults less than half this size that seem to function satisfactorily.
7. 18 AAC 72.900
  - a. (1) – How will a “5-wide” soil absorption system – five-foot-wide trench with one line of distribution pipe, with 1.5'-4' of distribution media (sewer rock, polystyrene beads, chambers, and gravelless pipe) distribute the effluent better than a 3' chamber with 1' of sewer rock on each side (total of 5' width)?
  - b. (5) – What is the significance of “original grade” and how is it defined? A few days, a few decades, a few centuries or geologic time old? What difference does it make if an excavator built it a few days ago or a river, ocean or glacier deposited a few centuries ago, as long as you have a test pit to describe the formation. What is the difference between excavating down 2 feet and installing a sand filter and installing a 2-foot sand filter on top of the existing ground?

Regarding David Wilfong's 2/16/2022 email about Mound Approval Requirements. I disagree with this approach. Based on my 20 plus years of experience in northern southeast Alaska (Haines, Skagway and Juneau), the reason a mound is selected is to meet separation distance requirements, typically to seasonal high groundwater or bedrock/impermeable layers. The perc rate of the native material is typically faster than 1 minute per inch and there is only a thin layer of organics on the surface – grasses, devil's club, etc. Basal area is not the issue, but adding several feet of material and a sand filter to slow the infiltration rate and meet separation distance requirements. The organic layer is best removed to improve access to the native material below. Also, the various farm implements mentioned in the email are not readily available in southeast Alaska, since this is not an agricultural area.