

Alternative Drainfield Products in Florida

Problem Statement:

Since approximately 2004 alternative drainfield products are installed at rates higher than aggregate. System field longevity and effectiveness of minimum drainfield footprint are untested. Availability of data is limited.

Current efforts and some of the data gathering issues:

1. Premature failure data gathering
 - a. only DOH internal
 - b. premature is NEW system ≤ 2 years
 - c. used to be one of the reportable items to the Surgeon General started in 2005 but approximately 2-years ago it came off the list and since then information comes in sporadically
 - d. a web based questionnaire has been developed and will soon be made available to CHD's to start tracking these again (this will make data analysis easier and will be a centralized location to submit the data)
 - e. Dale used to send out a quarterly report to counties letting them know they have premature failures
2. Repair evaluation form captures the reason for failure and failure symptom
 - a. Reason for failure options on form include: hydraulic overload, drainage / run off, soils, roots, maintenance, water table, system damage, other
 - b. Reason for failure symptom options on form include: Sewage on ground, plumbing backup, tank, d box/header, drainfield, other
 - c. how to measure if this is being marked accurately by system evaluators and people doing the data entry
 - i. can't control the system evaluators - can anything be done to improve this?
 - ii. can do check on quality of data entry by comparing paper records with the electronic record
 - iii. how to differentiate between installation issues vs. design issues?
3. Drainfield product type is recorded on the construction inspection and final approval form
 - a. how to measure if this is consistently being recorded
 - b. standardization of list only occurred approximately 2-years ago with EHD pull down list - counties were sent a standardized list to use in Centrax, but that list could be modified or not utilized
 - c. difficult to differentiate between new drainfield installations and alternative drainfield repairs
 - d. how to get contractors to let DOH know the original drainfield product on repairs (difficult to gather this data as it is usually unknown when submitting the application and remain unknown until ground has been broken)
4. Finding systems where the drainfield was replaced
 - a. alternative repairs are only marked in comment / text fields so it will be difficult to remove these from the dataset

- b. if alternative repairs are not removed problems will occur when reviewing the data (may make the system look like it failed sooner than it actually did)
 - c. two years ago added a checkbox to show that the drainfield is being replaced on a repair
5. Recording original drainfield product
 - a. there is no standard way for the original drainfield product type to be recorded - on the repair evaluation
 - b. this information could be obtained by linking the previous drainfield installation (new, modification, or repair)
 6. Linking of previous permits with new permits for an individual address
 - a. there is an option for the person doing the data entry to link to the previous permit by doing a search by address and linking the new permit
 - b. need to find out if this is being consistently done
 - c. previous routine written to do this link which can be rewritten for EHD
 - d. an email could be sent to counties quarterly to let them know about repairs that have been linked with a previous permit to trigger them to fill out the analysis form
 - e. suggest only including linked permits in any proposed data analysis

RRAC Discussion:

1. How old should the data that will be analyzed be?
 - a. if we include everything there can be data entry consistency errors
 - b. from our initial analysis it looks like the proportion of alternative drainfield products to aggregate drainfields went from 37% in 1995 - 2006 to 70% in 2004-2006
 - c. problem with limiting the date could be that systems with long lifespans are not considered
 - d. a short time frame will self-select for early failures and not give us an accurate look at longevity
2. Where do we go from here?
 - a. look at what was installed, how many failed, and in what timeframe the systems failed (need to look at % that have not failed along with the % failed, need to have a common denominator for comparisons)
 - b. design something that could capture the failure rate for systems
 - c. initiate quality control checks / recommendations to ensure consistent data entry and gathering
 - d. is this a stepping stone to determine if we need to pursue another contract similar to the Alternative Drainfield Products contract?
3. How much do we want to spend?