

Comments/Changes/Ideas from the First Workshops and Meetings as of 4/10/09

Ideas/comments from the two workshops

1. Flood Zones/Beach areas – FEMA guidelines to be adhered to for “V” zones
2. Class E contractor licensing – 2 year experience/tiered licensing
 - a. No temporary Class E for alternative system installations
 - b. Do Class E’s themselves need to be on-site during inspection?
 - c. Authorization numbers should expire within 14 calendar days
3. Obs wells/piezometers – letter of intent, readings, time frame for validity
4. Better define a lift station
 - a. Include alarms
5. Class H inspection definition & incorporate guidelines – required at sale of home?
6. Update exhibits
7. WAG a conventional system – add information and calculations
8. Discuss options for sections 4.2.2.3 and 5.4.1
9. Is there a need for a licensed electrician to perform work on systems? If not, we should revisit the specifics on electrical issues.
10. Is there a need to require flow meters and water meters on all systems?
11. TMDL/PCS – definitions and a reference only?
12. Large System CMR – revisit? Practicality of scale across systems
13. Provide reference locations (universities, web sites, etc.) for crop uptake rates?
14. Utilize a CCR inspector for large system construction inspections to assist engineers
15. Consider using SharePoint – **looked into already and Department does not have rules/protocol in place yet to facilitate the use of this program.**
16. Need product approvals for alt systems and products placed in reg’s
17. O & M guidelines are to be incorporated
18. Section 4.3.34.8 incorporate manufacturer for inspections and language for installers
19. Section 4.3.34.12 needs to be amended once O & M guidelines are incorporated
20. Definitions – some new ones added – community system, BOD, TN, TSS, PCS, system operator, PSC, curtain drain, etc.
21. Specific direction to Surface Water reg’s for operators responsibilities
22. Authorization number for large systems must 72 hours in advance

Class C Designer/Engineers

1. Sand lining of infiltration basins should be allowed into the water table.
2. The isolation distance for an infiltration system should be measured to the infiltration area, not the berm.
3. A reference should be provided for spray irrigation monthly nutrient uptake rates.
4. The regulations should specify that a monthly nutrient application and related storage analysis is required.
5. Spray irrigation system designs operation should allow for rest periods suitable for soil aeration.
6. 5.1.18 should include reference to protection from construction traffic.

7. 5.2.6. if a soils scientist can verify that there have been no changes, what can be submitted to show that the site remains suitable (no reason to redo the investigation)
8. 5.3.1 here and at other locations need to change to a regulation style document rather than a guidance. (addresses, web sites not appropriate)
9. There should be some allowance for reduced spare areas if a site is fully evaluated from a mounding perspective, or conversely that less evaluation should be allowed when a full spare is provided.
10. Another threshold for when a full PGIA/GMA is required
11. The GMA and/or design should consider other potential groundwater discharge sources i.e. stormwater or verify that they are not a local influence.
12. 5.4.1. that 100 units is too many and ½ acre density is too small
13. Construction drawings should be required by the Department (sufficient detail to construct).
14. The permit or other approval document should be issued based on a limited design and specifications to allow for design build projects. ...case by case basis... should be clarified.
15. Consistency needed in the groundwater mounding analysis techniques.
16. 301 (1) could include many other specific applications (i.e. lawns). Should just say public access or non-public access
17. Need buffer requirements for limited public access sites
18. Unlimited public access treatment requirements should not disallow lagoon systems
19. 304 No Table 2 in guidance available -- general formatting issues throughout.
20. 305 section seems out of place -- perhaps should be in maintenance
21. The 2.5 in/wk needs greater flexibility - maybe annual average
22. 308 (3) ... Forage crops must be harvested and removed at least several times annually...does not make sense.
23. 310 ...Municipal systems may *normally* require 45 to 60 days storage... either they do or they don't
24. Need a better understanding of storage requirements. Storage that provides operational flexibility vs. storage required for design (nutrient loading, mounding, etc.)
25. Be up front about what is required. (Be up front about what you'd like to see if in the end you are going to effectively require it.)
26. 315 should a chart recorder really be required if data can be logged electronically
27. Mounding analysis of some sort should be required for spray systems.
28. Language regarding spraying on ponded areas should be included
29. Temporary holding tanks should be allowed if disposal capacity can be demonstrated through SIR and PGIA/GMA
30. Need a better feasibility evaluation to really show system is feasible so that things can happen on this basis
31. Small systems section references large system information
32. Format and flow of the regulation still needs to be addressed
33. Provide a flow chart to show permitting path
34. 5.7 Purpose - Department should not encourage a specific type of system
35. 301 (1) Department may not want to promote spray irrigation on cemeteries
36. 303 (3) language implies that best nitrogen reduction occurs when organic and ammonia N applied, mechanical treatment that reduced N through denitrification provides the greatest reductions

37. 307 (1) 2.5 in/wk and 0.25 in/hr requirements are antiquated. Loadings should be based on site specific investigations
38. 315 These should be addressed by the design rather than the regulation
39. 402 (4) monitoring of streams is problematic - Groundwater monitoring should be sufficient
40. Regulations should provide for limited site specific permitting where reclaimed wastewater is used on a voluntary, as needed, basis for irrigation purposes. In these cases the level of pre-application treatment should be tailored to the particular application (lawns might require unlimited public access, while farms might allow restricted public access, Dept of Ag MOU requires unlimited public access for ag preservation land)

Class D Comments

See attached file – Regulation Revisions – soils committee
Their comments only go through section 5 at this point

Class E Comments

1. Install water meters on all new dwellings in order to understand any future problems with the systems by knowing how much water has gone in them. This should also apply to existing dwellings at the time of the new replacement system.
2. All installers should take digital photos at the time of installation for future reference.
3. The E licensed person should be on site during the entire installation. Don't allow sub-contracting to unlicensed installers.
4. Make it illegal to let a friend or anyone to install a system using your license.
5. Recommend 3 years minimum experience installing systems under a licensed contractor before applying for their license. Also make it mandatory that all applicants take the installer course at Del-Tech. Also toughen up the test or update it.
6. Recommend all installers re-test every 4 years. Also educate irrigation contractors.

Class H Comments

1. Same comment as Class E about water meters.
2. Digital photos of system during inspection – show violations and current conditions
3. Time limits? Would a new home at 3 months old be required to have an inspection? Would a house that had an inspection four months ago and resold again require another inspection? Or are inspections good for that day only?
4. Make sure Class H inspectors dig up d-boxes.
5. Licensing – recommend having a Class E license for 3 years before obtaining a H license.
6. Add additional items to the inspection checklist – access available, visual inspection under the dwelling, plumbing fixtures going to the septic tank, scum level, sludge level and was tank pumped at time of inspection.

PG Comments

1. Coordination of Site Characterization Efforts (Geologist <-> Soil Scientist)

These discussions revolved around roles and responsibilities and the ability of the property owner/applicant to understand the overlaps and distinctions. A suggestion/action item for this topic is the potential reorganization of sections 5.2 and 5.3 into a combined "Site Characterization" section with appropriate subsection.

Example:

5.2 Site Characterization

5.2.1 Process and Requirements

LOI, Meetings, submittals, Approvals, etc

5.2.2 Soils Investigations

SIR Details

5.2.3 Hydrogeologic Evaluation

GIA/GMA Details

2. Project Scale vs. Expectations

This started as a discussion on how the current regulations basically classify a 3,500 GPO system the same as a 350,000 GPO system, only with the later one requiring treatment, and how this can often lead to uncertainty with regard to expectations among DNREC, the Geologists, and the property owners. There was a general consensus that the level of characterization and modeling effort required is (and should be) dependent on the site/system specifics and can vary substantially (e.g. small system on a great site vs. large system on marginal site). While these distinctions may be understood by the Technical members of the project team at the start of the project, they are often confusing to the non-technical members. Furthermore, expectations based on a limited preliminary reconnaissance can often be misleading should the detailed characterization result in contradictory or inconsistent information. A recommendation associated with this subject is the possibility of a required Pre-Application Meeting between the DNREC, the applicant, and the project team.

3. Construction Inspection Requirements

While this subject is not directly in line with the charge of the Geologists Subcommittee as we understand it, as licensed professionals associated with the characterization, design, and approval process for the wastewater disposal facilities, the Geologists have a vested interest in seeing that the facilities are ultimately constructed properly (as designed). There was general consensus that the current regulations may not require sufficient oversight/inspection to ensure that this was the case. A possible recommendation in this regard may be that for systems beyond a certain scale and/or complexity, an independent review be required similar to that currently in place for the Department's Stormwater Program's CCR process.

4. Synchronization of Compliance Monitoring Goals and Permit Requirements

There appeared to be general consensus that the ultimate operational permit requirements issued for an approved system may not always be sufficient to fulfill the goals of the required Compliance Monitoring Report (CMR). A specific example of this would be that a Permit may require monthly water level monitoring, with quarterly reporting, while the CMR may require an annual assessment of the water table's response to the system operation. For many systems, the variability between manual water level observations taken as the operator's schedule permits

regardless of discharge schedule and volume, particularly without local precipitation data, does not allow for meaningful conclusion to be drawn.

5. Definitions & Standards (Consistency and Source)

There appear to be inconsistencies in the use of terms between the existing On-Site Regulations and the Spray Irrigation Regulations (e.g. hydraulic conductivity). The combination of these regulations should require that they be reviewed/revise to eliminate these inconsistencies. Additionally, where appropriate, the revised regulations should use/cite industry standard definitions and practices.

6. Site-Specific Flexibility

It was discussed how, in some previous efforts, the Department seemed to be prescribing operational constraints that may not be appropriate given the site-specific hydrogeology. Specifically, it may be inappropriate to expect all portions of a given disposal area to behave (drain) in the same fashion. Therefore, the allowance for spatial and temporal variability may be warranted in certain situations instead of a prescribed fixed schedule/rate.

Manufacturers Comments

1. Minimum standard for control panels
2. Minimum standard for installation of control panels - outdoors, within sight of pump, minimum height of 30" off the final grade
3. Add definitions of Alternative technologies to Regulations
4. Incorporate Operations and Maintenance into Regulations

DNREC Comments

1. Regional systems and protocols
2. Legal issues with requiring Class C, D and E licensees for spray projects – grandfather?
3. Incorporate Siting Density (old section 7) into new section 3
4. What new exhibits do we need to include? This is just a few – need to update & fix others
 - a. Curtain drain?
 - b. Loading rates for drip/peat
 - c. Amend Exhibit D flow rates for – firehouse, community center, dog kennel, assisted living homes, etc
 - d. Septic tank diagram – lift station, block in dosing chamber, etc.
 - e. Exhibit T – drip information
5. Add requirement for no irrigation systems to spray over drainfields
6. Revamp Variances section
7. Revisit mandatory hook up to central sewer when available
8. Revisit bonding issues in relation utilities vs. owner (old section 5.11022)
9. Discuss temporary holding tanks for large/regional systems
10. Replacement systems with limiting zones 0 – 19 need advance treatment?
11. All advance treatment units should be nutrient reducing
12. Septic tank risers – standardize via NSF standards

13. Delete old section 8.09600 – covered now with service provider requirements
14. Flow equalization – exhibit or reference on how to do it
15. Rename I/A to Alternative only
16. Revisit old section 4.3.27 – to clarify re-investigation procedures/requirements
17. Post investigation needs for golf courses
18. Rename PGIA to GIA or other name
19. Is there a need for testing for pharmaceuticals?
20. Spray – should we differentiate between food processing plants and domestic waste?
21. Permanent holding tanks – revisit need

Additional DNREC Comments using current regulation numbering scheme

Section 2: Definitions

- | | |
|---------|---|
| 2.01095 | Class H Inspection: The inspection of an existing OWTDS conducted by an individual who is licensed by the Department to inspect, investigate and collect data to make determination about the type and condition of the OWTDS and then submit a detailed report on Department authorized forms providing all the information required about the current operating condition of the OWTDS as observed on a specific date and time. |
| 2.1136 | Conventional On-Site Wastewater Treatment and Disposal System: Any system that has specific design criteria described within these Regulations. |
| 2.01230 | Dosing Chamber: A receptacle for retaining effluent until pumped by timed and measured volumes, under specific pressure to an absorption facility. |
| 2.01247 | Effluent Filter: A device placed in the outlet compartment of a septic tank, dosing chamber or receptacle made specifically for the purpose of containing the device, which conforms to ANSI/NSF Standard 46 for the purpose of removing particulate matter before the effluent enters the absorption facility. |
| 2.01415 | Lift Pump Station: A pre-engineered vessel that encompasses a pump, switches, alarm and any other peripheral equipment needed. It is used to overcome slope differentials or distances requiring a pump to move wastewater to a system component for the use of gravity distribution. |
| 2.01260 | Emergency Repair: Repair of a broken system component where immediate action is necessary to protect public health or promote the welfare of the public. |
| 2.02050 | Water Treatment System Discharge: Any waste or by-product created by a chemical, biological or mechanical potable water purification system. |
| 2.1261 | Define Encumbrance |
| 2.01041 | Revise Definition of Alternative System |
| | Governmental Appointee |
| | Community System |
| | Alternative System |
| | BOD |
| | TN |
| | TSS |
| | Pollution Control Strategies |

System Operator
Public Service Commission

Section 3: General Standards, Prohibitions and Provisions

- 3.12000 No cooling water, air conditioning water, groundwater, oil, water treatment system discharge or roof drain shall be discharges into any system without specific authorization of the Department. Water treatment system discharge shall be discharged in a manner that does not allow surface discharge.
- 3.22000 Define or remove “At reasonable times”
- 3.24000 FEMA Guidelines should be taken into consideration when siting on-site wastewater treatment and disposal systems in flood prone areas designated as “V” zones.

Section 4: Licensing

- 4.06000 Qualify and quantify two (2) years experience
- 4.06300 (f) Clarify – sounds like you have to have Class E to own a company that installs system – need to know who with, contractor is in charge of install.
- 4.06400 Add: “in accordance with DNREC Regulations” at end
- Major re-write throughout Section 4 for Class D & E Licensees as it refers to what they can do. Possible tiered approach
- | | | | |
|---------|------------------------------|---------|----------------------------|
| Class D | D1. Single Family/I-A <2,500 | Class E | E1. Apprentice |
| | D2. 2,500 – 20,000 | | E2. Single Fam/I-A , 2,500 |
| | D3. 20,000 – spray | | E3. 2,500 – 20,000 |
| | | | E4. 20,000 – spray |
- 4.06200 Should we consider a responsibilities list similar to Section 4.06300 for Class H system inspector?

Section 5: Site Evaluations and Permits

- 5.01030 Clarify scale (ie. 1” = 10’-20’-30’-40’50’...) or specify use of “Engineers” scaling
- 5.01080 (h) quantify # Borings in “Representative number” (ie. # of borings per acre)
Add “Existing on-site and adjacent wastewater treatment and disposal system”
- 5.01105 Omit “ten (10) working days” both locations
Omit “A percentage of randomly chosen site evaluations submitted shall be field verified by DNREC staff”
- 5.01176 Add “lot re-configuration” in Line 4
“Likewise, any borings/test pits conducted greater than 100’ from the previously approved area, with or without a system change, or a lot reconfiguration, shall required a review fee.”
- 5.01180 Re-work “Notice of Intent to Deny”
- 5.01200 Complete Re-write
- 5.02055 (e) add “existing and/or proposed” wells and wastewater treatment disposal system
- 5.02060 (a) Clarify single family dwelling vs. 500 gpd – a lot of 5 & 6 bedrooms dwellings - add “and/or economically unfeasible” to last line

- 5.02100 Add “additional fee will be charged if construction is not complete prior to expiration of permit”
- 5.02105 Adjust – consider re-evaluation with fee, if warranted
- 5.04006 Re-vamp “As-built”
- 5.04046 New section for Class H Inspection
 - to include Class H procedures like sections 5.01000 & 5.02030
 - validity of inspections w/o signatures
 - sketch requirements like section 5.01030
 - life of inspection
 - slug test
- 5.04020 (b) add timeframe for submittal of construction report and as-built
- 5.06005 Clarify “all systems” to be “all on-site wastewater treatment and disposal systems”
 (b) all persons abandoning systems must fill out abandonment report. Even gov. appointee
- 5.06010 Revisit and clarify when “proper abandonment” is necessary
- 5.06020 Add item (d) the abandonment report has been submitted to the Department
- 5.07040 (b) Impossible to verify w/o inspecting so do we want to omit or inspect
- 5.07070 (e) Omit due to the fact that it is a hardship and there may be no site evaluation and the cost to do one adds to hardship. Additionally, the system would be a replacement, therefore, guaranteed to be permitted
- 5.13080 Require minimum size for any holding tank to be 2,800 gallons.

Section 6 Design and Construction

- 6.01018 Typo “insure” should be “ensure”
- 6.01024 Specify that 20 mpi not required
- 6.01025 Clarify LPP sizing as not typical with trench design
- 6.01042 Review and update gradation if possible
 Amend to add tire chips with spec.
- 6.01031 Add clearing and grubbing in area of system must be performed by Class E
- 6.01061 (b) (1) and throughout Regs “require filter fabric on all systems”
- 6.01062 (a) clarify plowing depth
 (c) change “sand” to “sandy”
- 6.01091 Add language that spare can be used if site evaluation is still valid
- 6.01063 (c) change minimum cover from 6” to 9”
 (g) change “insure” to “ensure”
- 6.01072 Add sodding to last line as an option
- 6.01074 Delete – repetitive with 6.01072
- 6.04060 Add requirement for pumping contract for grease trap required with permit application
- 6.06050 Add “with the exception of LPP systems”
- 6.06051 Typo change “allows” to “allow”
- 6.06070 Add section making Wisconsin at Grade (WAG) a conventional system

- 6.06071 Require location of tank to facilitate pump out distance and elevation
- 6.06072 Require top seam tanks
- 6.07208 (a) delete – remove cast in place tanks
- 6.07211 Delete
- 6.07212 Delete references to “cast in place tanks”
- 6.07214 Re-write to omit section allowing center wall connection to be 2-6”
- 6.07216 Confirm size is ok (18”) change if necessary
- 6.07219 Clarify and specify securing procedure
- 6.07302 Change stone requirement to allow stone used in drainfield (tire chips are not an option for this)
- 6.07304 Contradicts 6.01061 (b) (5) – pick one 2” or 4” as cutoff
- 6.09031 Add subsection to address D box application when a lift station is used
- Require use of speed levelers in all D boxes
- 6.09043 Change to allow additional fittings or enforce tee requirement
- 6.09100 Revisit and rewrite
- New Electrical requirements
- Event counter/other metering device

Section 8: Maintenance

- 8.02010 Follow manufacturer’s recommendations for cleaning effluent filters (every 6 months)

Section 10: Variances

Complete re-vamp

3.1 The Department shall administer a program for the licensing of percolation testers, system designers, site evaluators, system contractors, liquid waste haulers and system inspectors. The licensing program shall provide the issuance of licenses as follows;

3.1.1 Class A - Percolation Tester: The Class license authorizes the performance of percolation tests and other types of infiltrometer testing.

3.1.2 Class B - Designer: The Class B license authorizes the design of conventional on-site wastewater treatment and disposal systems which utilize gravity distribution systems for seepage beds and seepage trenches and lift pump stations as provided for in these Regulations.

3.1.3 Class C - Designer: The Class C license authorizes the design of conventional and alternative on-site wastewater treatment and disposal systems and all pressure distribution systems.

3.1.4 Class D - Soil Scientist: The Class D license authorizes the performance of ~~site~~ soil evaluations, percolation and/or permeability tests or hydraulic conductivity tests.

3.1.5 Class E - System Contractor: The Class E license authorizes the construction, repair and installation of on-site wastewater treatment and disposal systems.

3.1.6 Class F - Liquid Waste Hauler: The Class F license authorizes the removal or disposal of the solid and liquid contents of septic tanks, cesspools, seepage pits, holding tanks or other wastewater treatment or disposal facilities as specified and required under these Regulations.

~~3.1.7 Class GB - Designer: The Class GB license authorizes the design of combined well and conventional on-site wastewater treatment and disposal systems which utilize gravity distribution systems for bed and trench designs.~~

~~3.1.8 Class GC - Designer: The Class GC license authorizes the design of combined well and conventional and alternative on-site wastewater treatment and disposal systems and all pressure distribution systems.~~

3.1.9 Class H - System Inspector: The Class H license authorizes the inspection, investigation and data collection to make determinations regarding the present operational condition of on-site wastewater treatment and disposal systems.

3.2 It shall be necessary to have the Class A, Class B, Class C, Class D, Class E, Class F, ~~Class GB, Class GC~~ and Class H licenses in order to engage in the specified activities under Section 3.1 of these Regulations.

3.3 Any person seeking a license under this Section shall submit a complete application to the Department, on a standard form provided by the Department, references and pay the non-refundable application fee, if required. All applicants for a Class A, B, E, F, ~~GB and/or H~~ license will be required to pass an examination prepared and administered by the Department to test the competency and knowledge of the applicant regarding pertinent subject matter and the application and use of these Regulations. ~~(GB and GC licenses shall not be available until Section 3.04 of the Regulations Governing the Construction and Use of Wells is amended. Class H license's shall not become effective until one (1) year after the adoption of these Regulations.)~~

3.4 In the event an applicant fails to receive a passing grade on the examination, he/she shall be so notified by the Board within 30 days. The applicant may re-

ADD FEASIBILITY
STUDIES

apply for a subsequent examination only after completion of a training course approved by the On-Site System Advisory Board (OSSAB). The examination may be taken no more than twice in a twelve (12) month time period.

3.5 With respect to Class C licenses the following shall constitute the Department's requirements:

3.5.1 Registration as a Professional Engineer with the Delaware Association of Professional Engineers; and

3.5.2 A complete qualifications statement on approved Department forms which verify the individual's knowledge and competency in the field of on-site wastewater treatment and disposal system engineering and design.

3.6 With respect to Class D licenses the following shall constitute the Department's requirements:

3.6.1 A completed application on forms provided by the Department; a resume which demonstrates that the applicant has had relevant experience in the field of soil classification and mapping and/or site evaluations for on-site wastewater treatment and disposal systems; provide three (3) references; and one of the following (b, c or d)

3.6.2 Six (6) years of professional experience under the supervision of an ARCPACS Professional Soil Classifier or Class D Soil Scientist in soil classification, mapping and interpretation with nine (9) semester hours in soil science and six (6) semester hours in geological sciences from accredited college or university; or

3.6.3 Four (4) years of professional experience under the supervision of an ARCPACS Professional Soil Classifier or Class D Soil Scientist in soil classification, mapping and interpretation and an undergraduate degree from an accredited college or university with nine (9) semester hours in soil science and six (6) semester hours in geological sciences; or

3.6.4 Two (2) years of professional experience under the supervision of an ARCPACS Professional Soil Classifier or Class D Soil Scientist in soil classification, mapping and interpretation and a graduate degree from an accredited college or university with thirty (30) semester hours in biological, physical and earth sciences and fifteen (15) semester hours in soil science; and

3.6.5 Pass a written examination administered by the Department to test the competency and knowledge of the applicant regarding site evaluations and pertinent information contained within the regulations as it relates to siting OWTDS; and one of the following (f or g)

~~3.6.6 Registration as a Professional Soil Classifier with the Federation of Certifying Boards in Agriculture, Biology, Earth and Environmental Sciences (ARCPACS); or~~

3.6.7 Pass a field practicum prepared and administered by the Site Interpretations Advisory Council and/or the soil scientists on the On-Site System Advisory Board. The field practicum shall assess whether competency exists for evaluating soils specific to Delaware.

3.7 With respect to Class E licenses the following shall constitute the Department's requirements:

← "3.6.2, 3.6.3, or 3.6.4" INSTEAD OF "b, c, or d"

ADD 3-TIERED APPROACH AS WE DISCUSSED - YOU HAD PROPOSED WORDING IN ORIGINAL MEMO

REMOVE 3.6.6 AS ALL APPLICANTS WILL TAKE FIELD PRACTICUM

- 3.7.1 A completed qualifications statement, on appropriate Department forms, which verify the individual's knowledge and competency of the application and requirements of these Regulations; and
- 3.7.2 A minimum of two (2) years of experience under the guidance of an experienced supervisor in the construction of on-site wastewater treatment and disposal systems
- ~~3.8 With respect to Class GB licenses the following shall constitute the Department's requirements:~~
- ~~3.8.1 A complete qualifications statement on approved Department forms which verify the individual's knowledge and competency in the field of gravity on-site wastewater treatment and disposal systems; and~~
- ~~3.8.2 A complete qualifications statement on approved Department forms which verify the individual's knowledge and competency in the placement of wells and the Regulations Governing the Construction and Use of Wells~~
- ~~3.9 With respect to Class GC licenses the following shall constitute the Department's requirements:~~
- ~~3.9.1 Registration as a Professional Engineer with the Delaware Association of Professional Engineers; and~~
- ~~3.9.2 A complete qualifications statement on approved Department forms which verify the individual's knowledge and competency in the field of engineering and the design of on-site wastewater treatment and disposal systems~~
- ~~3.9.3 A complete qualifications statement on approved Department forms which verify the individual's knowledge and competency in the placement of wells and the Regulations Governing the Construction and Use of Wells~~
- 3.10 With respect to Class H licenses the following shall constitute the Department's requirements:
- 3.10.1 Furnishes certification of training completed under the National Association of Waste Transporters (NAWT) certification, Pennsylvania Septage Management Association (PSMA) certification, Delaware Technical & Community College certification program or as approved by the Board.
- 3.11 Responsibilities of Licensees
- 3.11.1 Any Class D licensed site evaluator may be required to notify the Department orally or in writing at least thirty-six (36) hours, excluding Saturdays, Sundays and state holidays, prior to conducting the site evaluation. This is at the sole discretion of the Department.
- 3.11.2 All Class A, B, C, D, E, F, ~~GB, GC~~ and H licensee's are responsible for correct and complete information submitted to the Department as it pertains to current Regulations.
- 3.11.3 All Class E licensed system contractors shall:
- 3.11.3.1 Initiate work only on systems for which a construction permit has been granted; and
- 3.11.3.2 Comply with all applicable regulations and requirements; and
- 3.11.3.3 Responsible for the work carried out by their employees; and

3.11.3.4 Submit to the Department within ten (10) days of completion of a system, a Construction Report on forms provided by the Department, signed by the licensed contractor; and

3.11.3.5 Notify the Department 24 hours prior to construction start up to receive an authorization number, except newly licensed contractors must notify the Department forty eight (48) hours prior to initial six (6) construction start ups to receive an authorization number; and

3.11.3.6 Be the sole contact person to the Department regarding inspection call-ins, consequential changes or problems. An individual employed by the licensee may be the contact person for inspection call-ins provided that person is a Class E licensee or has been designated as a contact person in writing to the Department by the licensee prior to calling.

3.11.4 All Class F licensed liquid waste haulers shall:

3.11.4.1 Display the name, address and permit number of the licensee in standard block letters no less than three (3) inches high on both sides of each vehicle used for hauling purposes; and

3.11.4.2 Equip every vehicle used for hauling purposes with a watertight tank or body and be maintained in a clean and sanitary condition. Liquid wastes shall not be transported in an open body vehicle unless contained within suitable receptacles. All pumps and hose lines shall be free of leaks; and

3.11.4.3 Assure all receptacles used for transporting liquid or solid wastes are watertight, equipped with tight fitting lids and are cleaned daily; and

3.11.4.4 Obtain prior approval in writing from the Department for every site at which a hauler plans to discharge a specified amount of waste material collected. No waste material shall be discharged on a site without such prior approval. Written approval will be based upon the applicant having satisfied the requirements of all applicable regulations adopted by the Department. Waste material collected by the hauler shall not be discharged into ditches, watercourses, lakes, ponds, tidewater or at any point where it can pollute any watercourse, water supply source, bathing area, or shellfish growing area. It shall not be deposited within 300 feet of any highway, except as provided in subpart (3.11.4.5) hereunder; and

3.11.4.5 Discharge liquid wastes into approved wastewater treatment facilities unless otherwise authorized by the Department, provided such facilities have sufficient capacity and capability to handle such liquid wastes; and

3.11.4.6 Fit all truck pumping and discharge hoses with automatic shutoff valves; and

3.11.4.7 Remove all wastewater from the appropriate tanks in accordance with the guidelines as set forth by the Department; and

3.11.4.8 May repair, add or replace septic tank and/or holding tank risers, baffles, lids, distribution box lids and effluent filters.

3.11.4.9 Transporting Sludge or Septage

3.11.4.9.1 For the purpose of this section, sludge and septage are divided into three types:

<u>Sludge Type</u>	<u>Percent Solids</u>
<u>Liquid</u>	<u>Less than 15</u>
<u>Cake</u>	<u>15 - 35</u>
<u>Dried</u>	<u>Greater than 35</u>

3.11.4.9.2 The Department may issue permits to transport sludge off-site if the Department approves of the equipment to be used, the operations plan, and the destination of the sludge.

3.11.4.9.3 Liquid sludge or septage can be pumped and transported by pipeline. If liquid sludge is transported by truck, rail, or barge, closed watertight vessels shall be used such as tank trucks and railroad tank cars or other vessels which can provide equivalent protection against spills and leakage.

3.11.4.9.4 Cake may be transported in watertight boxes, such as dump trucks properly sealed to prevent leaks, or cement type vehicles. Unless the applicant demonstrates equivalent protection against spills and leakage, when sludge cake is transported in dump trucks, the following standards shall be met:

3.11.4.9.4.1 The trucks shall be equipped with splash guards firmly attached horizontally at the front and rear of the trailer;

3.11.4.9.4.2 Each splash guard shall cover at least 25 percent of the trailer's open area; and

3.11.4.9.4.3 A minimum 2 feet of freeboard shall be maintained between the sludge and the top of the trailer unless the top of the trailer is completely sealed.

3.11.4.9.5 The Department may require certain cake sludges to be transported as liquid sludge.

3.11.4.9.6 Dried sludge may be transported in open boxes, such as dump trucks, which are properly sealed to prevent leakage. The trucks shall be covered with tarps or the equivalent.

3.11.4.9.7 All vehicles used to transport sludge or septage shall be operated and maintained so as to be in compliance with all state and federal regulations and not present a hazard to human health or the environment through unsafe vehicle conditions. The permittee is responsible for the operation and maintenance of all vehicles operated under the permit.

3.11.4.9.8 All transporters of sludge or septage shall submit to the Department a plan for the prevention, control, and cleanup of accidental discharges. No

transportation permit will be issued until such a plan has been submitted to and approved by the Department.
3.11.4.9.9 All transporters shall at all times maintain commercial automobile liability insurance with a combined single limit of at least \$100,000, and shall submit a Certificate of Insurance demonstrating compliance with this regulation. All persons subject to these regulations that were permitted to transport in Delaware before the adoption of this requirement shall be subject to the requirement upon renewal of their permit, or 90 days after adoption of the part, whichever is first.

3.11.4.10 Permitting Transportation

3.11.4.10.1 A description of the sludge to include the source of the sludge, the quantity to be transported, and any treatment the sludge has undergone before transportation (for example anaerobic digestion, aerobic digestion, lime stabilization, composting, or dewatering).

3.11.4.10.2 Results of a laboratory analysis of a representative sample of the sludge which was obtained not more than 6 months before submission of the application unless these results would be submitted as a part of the land application program. The analysis shall include, as a minimum, percent solids, pH, and the dry weight concentration of total nitrogen, ammonium, nitrate, total phosphorous, total potassium, cadmium, copper, mercury, nickel, lead, zinc, arsenic, selenium, and molybdenum. The Department may require more frequent analyses and analyses for other sludge constituents if considered necessary to adequately assess the potential public health, environmental, and nuisance impacts of the project. The Department will waive the requirement for domestic septage.

3.11.4.10.3 A description of all equipment to include collection, short-term holding, handling, and wash down equipment, as well as a detailed description of the transport vehicles to include type, size, number, and all modifications made to prevent spills and leaks.

3.11.4.10.4 An operations plan to include transportation route, days and hours of operation, spill reporting and cleanup plans, plans to keeping transportation vehicles clean, and recordkeeping procedures.

3.11.4.10.5 The destination of the sludge and a description of what is to be done with the sludge at the destination.

3.11.4.10.6 Other relevant information requested by the Department.

3.11.5 All Class H System Inspectors shall:

3.11.5.1 All inspections of on-site wastewater treatment and disposal systems shall be submitted to the Department on forms approved by the Department (~~See Exhibit A for the inspection form example and guidelines~~). These forms shall be submitted within seventy two (72) hours of inspection completion.

3.11.6 Any person who engages in the practice of professional engineering or professional geology in the specified activities under this Section shall be duly registered in conformance with the requirements of the laws of the State of Delaware.

3.11.7 The Department may issue temporary Class A, B, or E licenses to property owners who wish to conduct their own percolation testing, system design, or system installation on their own property and for their own use. Certification of the intended use will be required. The applicant shall submit an application on Department forms along with any required fee and shall demonstrate his competency in those fields by successfully completing a test conducted by the Department. The term of the temporary Class A, B, or E license shall expire upon completion of work conducted by the applicant for which the permit was issued.

3.11.8 In exercising exclusive licensing authority under this section, the Department shall seek the views of an On-Site Systems Advisory Board regarding licensing matters. The Board shall consist of six (6) members designated by the Secretary. The Board shall, if possible, have one (1) member who is a representative of the Department, one (1) member who is a Professional Engineer, one (1) member who is a Professional Geologist, one (1) member who is a representative of the USDA, one (1) member who is a Class D soil scientist, and one (1) member who is a Class E system contractor, one (1) member who is a Class F liquid waste hauler and one (1) member who is a Class H system inspector. The members of the Board shall serve at the discretion of the Secretary. The Board shall advise the Department on matters relating to issuance of Class A, Class B, Class C, Class D, Class E, Class F, ~~Class GB, Class GC~~ and Class H licenses.

3.11.9 Upon adoption of these Regulations, the applicant for a license renewal shall submit with the renewal application proof that he/she has attended and/or satisfactorily completed a minimum of ten (10) hours of continuing education training relating to the wastewater industry. This is to include siting, design, construction, operation and/or maintenance of on-site wastewater treatment and disposal systems. Class D soil scientists not ARCPAC certified must attend at least three (3) hours of soil related curriculum. Any training must be sponsored by recognized governmental, educational or industrial groups which include equipment manufacturers and be approved by the OSSAB. The number of hours of continuing education for first year licensee's will be decided by the OSSAB and be based upon license issuance date.

3.11.10 The Secretary may suspend or revoke the license of a Class A, B, C, D, E, F, ~~GB, GC~~ or H licensee after considering the recommendations of the On-Site Systems Advisory Board and demonstration that the licensee has practiced fraud or deception; that reasonable care, judgment, or the application of their knowledge or ability was not used in performance of their

duties; or that the licensee is incompetent or unable to perform their duties properly and;

3.11.10.1 Violated any provision of these Regulations;

3.11.10.2 Violated any lawful order or rule rendered or adopted by the Department;

3.11.10.3 Obtained his/her license or any order, ruling, or authorization by means of fraud, misrepresentation, or concealment of material facts;

3.11.10.4 Failure to obtain the necessary hours of continuing education training required by these Regulations;

3.11.10.5 Been found guilty of misconduct in the pursuit of his/her profession

3.11.11 Any person whose application for a license has been denied or person whose license has been suspended or revoked shall be notified in writing and provided reasons for the decision. Within twenty (20) days of notification, the person shall notify the Secretary, in writing, if an appeal pursuant to 7 Del. C., Chapter 60, Section 6008 is to be requested. If no appeal request is received within the designated period the decision shall become final.

3.11.12 Licenses issued pursuant to this Section are not transferable and shall expire on December 31st of each year. A license may be renewed for one year without examination for an ensuing year provided the licensee makes application for renewal by November 30th of each year, shows proof of the number of hours of continuing education training and pays any applicable renewal fees adopted by the Department. If the licensee fails to renew the license he/she may reapply, without examination, within the first year. If more than a year passes the licensee must reapply for the license and take all necessary examinations. A reminder will be sent to the licensee to renew his/her license by the Department. The reminder will be sent to the address on file for the licensee. It is the licensee's responsibility to renew the license yearly and notify the Department of any changes.

4.0 SMALL SYSTEMS (< 2,500 GPD)

4.1 General Standards, Prohibitions And Provisions

4.1.1 Each and every owner of real property is jointly and severally responsible for:

4.1.1.1 Disposing of wastewater in conformance with all applicable Regulations; and

4.1.2.1 Connecting all plumbing fixtures on that property, from which wastewater is or may be discharged, to a central wastewater system or on-site wastewater treatment and disposal system approved by the Department; and

4.1.3.1 Maintaining, repairing, and/or replacing the system as necessary to assure proper operation of the system.

4.1.2 No person shall construct, install, modify, rehabilitate, or replace an on-site wastewater treatment and disposal system or construct or place any dwelling, building, mobile home, manufactured home or other structure capable of discharging wastewater on-site unless such person has a valid permit issued by the Department pursuant to these Regulations.

4.1.3 No permit may be issued by the Department under these Regulations unless the county or municipality having land use jurisdiction has first approved the activity through zoning procedures provided by law.

4.1.4 Any ~~county~~ may assume responsibility and authority for administering its own regulatory program for on-site wastewater treatment and disposal systems pursuant to 7 Del. C., Chapter 60, Section 6003(d), if the delegated program establishes standards no less stringent than the standards established in these Regulations.

4.1.5 Administrative and judicial review and the enforcement under these Regulations shall be in accordance with the provisions of 7 Del. C., Chapter 60.

4.1.6 If any part of these Regulations, or the application of any part thereof, is held invalid or unconstitutional, the application of such part to other persons or circumstances, and the remainder of these Regulations, shall not be affected thereby and shall be deemed valid and effective.

4.1.7 These Regulations, being necessary for the health and welfare of the State and its inhabitants, shall be liberally construed in order to preserve the land, surface water and ground water resources of the State.

4.1.8 At the sole discretion of the Department, if the proposed operation of a system may cause pollution of public waters or create a public health hazard, system installation or use shall not be authorized.

4.1.9 All wastewater shall be treated and disposed of in a manner approved by the Department.

4.1.10 No person shall dispose of wastewater at any location not authorized by the Department under applicable laws and regulations for such disposal.

4.1.11 Discharge of untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface or into surface waters of the State, unless authorized by a permit issued by the Department, constitutes a public health hazard and is prohibited.

4.1.12 No cooling water, air conditioning water, groundwater, oil, water softener brine backwash or roof drainage shall be discharged into any system

REMOVE "COUNTY"
+ ADD "GOVERNMENTAL
AGENCY"

without specific authorization of the Department. Water softener backwash shall be discharged in a manner that does not allow surface discharge (curtain drain).

4.1.13 Except where specifically allowed within these Regulations, no person shall connect a dwelling or commercial facility to a system if the total projected wastewater flow would be greater than that allowed under the original system construction permit.

4.1.14 Each system shall have adequate capacity to properly treat and dispose of the maximum projected daily wastewater flow. The quantity of wastewater shall be determined from these Regulations or other information the Department determines to be valid that may show different flows.

4.1.15 A permit to install a new system can be issued only if each site has received an approved site evaluation and is free of encumbrances (e.g., easements, deed restrictions, etc.) which could prevent the installation or operation of the system from being in conformance with these Regulations.

4.1.16 A recorded utility easement is required whenever a system crosses a property line separating property under different ownership. The easement must accommodate that part of the system, including setbacks, which lies beyond the property line, and must allow entry to install, maintain and repair the system.

4.1.17 Whenever real property is recorded as two separate lots under common ownership and an on-site wastewater treatment and disposal system crosses the common boundary of the recorded lots, the owner shall execute and record, in the appropriate county office of Recorder of Deeds, an affidavit which notifies prospective purchasers of this fact on a form approved by the Department.

4.1.18 Except as provided in these Regulations, the spare area shall be kept vacant, free of vehicular traffic and soil modifications.

4.1.19 All systems shall be operated and maintained so as not to create a public health hazard or cause water pollution.

4.1.20 Exhibits A **through** are incorporated into these Regulations by reference.

4.1.21 No person shall transfer any portion of real property if the transfer would create a lot boundary which would cross an existing system or any part thereof including required setbacks and isolation distances unless, a utility easement is granted to the owner of the existing system and recorded in the appropriate county office of Recorder of Deeds.

4.1.22 The Department shall have the power to enter, at reasonable times, upon any private or public property for the purpose of inspecting and investigating conditions relative to the enforcement of these Regulations.

4.1.23 No person shall transfer any portion of real property after the issuance of a permit pursuant to these Regulations if the transfer would result in the use of the permitted on-site system on a lot which does not comply with these Regulations and the terms of the permit, including density, set back and isolation distance requirements.

4.1.24 Moratorium Areas

4.1.24.1 As soon as the Department determines that construction of on-site wastewater treatment and disposal systems should be limited or prohibited in an area, it shall issue an order limiting or prohibiting such construction.

4.1.24.2 The order shall be issued only after a public hearing which shall insure that twenty (20) days notice is given.

4.1.24.3 The order shall contain a specific description of the moratorium area and shall be limited to the area immediately threatened with ground water or surface water contamination if construction in that area continues.

4.1.24.4 In issuing an order under this Section the Department shall consider the factors contained in 7 Del. C., Chapter 60, Section 6001.

4.1.24.5 The moratorium shall be limited to a period of five (5) years after which re-establishment of the moratorium may be considered.

4.2 Soil Investigations

4.2.1 Site Evaluation Procedures

4.2.1.1 A site evaluation is the first step in the process of obtaining a construction permit for an on-site wastewater treatment and disposal system. Any person applying for a permit to install a new or replacement on-site wastewater treatment and disposal system shall first obtain a site evaluation report prepared by a Class D soil scientist. The Department shall conduct site evaluations only for Home Rehabilitation Loan Programs (HRLP), block grant households, State Revolving Fund (SRF) sites and other qualifying income programs with similar criteria.

~~Site evaluations performed for the purpose of siting large/community systems refer to the necessary criteria in Section 5-2.~~

4.2.1.2 Each report shall be completed in full and be accompanied, at a minimum, by approval page(s) (excluding sites not suitable for conventional on-site wastewater treatment and disposal systems (OWTDS)), report page(s), site drawing, soil profile notes, zoning verification form and the appropriate fee. The site evaluation report shall contain specific site conditions or limitations including, but not limited to, isolation and separation distances, slopes, existing wells, cuts and fills, and unstable landforms.

4.2.1.3 The Class D soil scientist shall specify on the approval page the type of on-site wastewater treatment and disposal system that may be constructed in the acceptable on-site disposal area as indicated on the site drawing. Any other on-site wastewater treatment and disposal options available in the evaluated area shall be specified by the Class D soil scientist. The evaluator shall either assign a percolation rate or have the appropriate hydraulic conductivity or percolation test conducted in the proposed disposal area prior to submittal.

4.2.1.4 A site drawing drawn to scale showing the information referenced in Section 4.2.1.9. All site drawings are required to show ~~a~~ ^{two} reference points such as a numbered utility pole, telephone or

electrical box, building(s), property corners or fixed survey marker. A minimum of two reference points shall be noted on the site drawing ~~when no land survey boundary stakes or markers are readily identifiable in the field, or if the site drawing is not based on a survey conducted by a licensed land surveyor. However, if the site drawing is based on a survey conducted by a licensed land surveyor, the property corner stakes or markers will suffice for identification of the parcel.~~ Site drawing(s) shall be based on an even number scale, not to exceed 1 inch equals 100 feet. Any site drawing exceeding the dimensions of 8.5 inches X 11 inches must be submitted in duplicate.

ADD PERIOD
DELETE

4.2.1.5 Showing the location of all on-site and adjacent wells within 150 feet of the approved soils area is the responsibility of the Class D soil scientist. The following procedure shall be used in all cases when on-site or adjacent well(s) cannot be located. For instances where the on-site or adjacent well(s) are below ground and the homeowner or adjacent property owner states that the well is located in a certain area, this information shall suffice for verification of well location. Any well(s) that can not be verified must be researched through the Water Supply Section of the Department. The search attempts to locate any well(s) that are near the affected parcel. If, after this search is completed, the well location(s) cannot be identified the Class D soil scientist can state "records were researched under this property owner's name and no information was found". The Department then sends a letter to the adjacent well owners notifying them of the need to locate their well(s) due to the future installation of an on-site wastewater treatment and disposal system. If no response is rendered within fifteen (15) days of receipt then the new system is to be designed to maximize the isolation distance from the property line.

4.2.1.6 A site evaluation prescription shall follow an approach that includes consideration of topography, available area, slope gradient and uniformity, soil profile (thickness and depth of each horizon, color, percolation, absorption rate, redoximorphic features, texture (see Exhibit B), and zones of saturation), drinking water supplies, bodies of water, and shellfish growing areas. All suitable soils within the evaluated area shall be delineated regardless of isolation distances, encumbrances and easement requirements as well as any of the above conditions which may exist.

4.2.1.7 All soil borings, holes and/or pits shall be flagged, identified and adequately shown on the site drawing.

4.2.1.8 In describing the soils and soil profile, the soil scientist shall adhere to the procedures and techniques provided in the latest edition of the Soil Survey Manual, ~~USDA Agricultural Handbook No. 18, as published by the U.S. Department of Agriculture and,~~ the

Fieldbook of Describing and Sampling Soils, and Keys to Soil Taxonomy

4.2.1.9 The report shall contain, at a minimum, a site drawing and observations of the following site characteristics, if present:

4.2.1.9.1 ~~Parcel size, location map of project site, configuration and approximate dimensions~~

4.2.1.9.2 Slope - percent and direction

Approximate parcel acreage

4.2.1.9.3 Surface streams, springs or other bodies of water and their definition (i.e. shellfish, intermittent, ephemeral, etc.)

~~4.2.1.9.4 Existing wells within 150 feet of approved soils area~~

Repeated elsewhere so delete

4.2.1.9.5 Escarpments

4.2.1.9.6 Cuts and fills

4.2.1.9.7 Unstable landforms

~~4.2.1.9.8 A representative number of soil profile descriptions in the evaluated area(s) and shall identify the soil series or classification to the subgroup level (i.e. Sassafras or Typic Hapludult). The geographic coordinates of each representative soil boring, a minimum of two (2), must be determined by a global positioning system. The coordinates should be reported in the following format - Latitude DD.ddddd & Longitude DD.ddddd (5 decimal places are required for accuracy).~~

A minimum of 3 soil profile descriptions or ~~two~~ 2 test pits per acre
* add "taxonomic"

~~4.2.1.9.9 Zones of saturation (as indicated by redoximorphic features)~~

Delete since computer program handles all formats

* 4.2.1.9.10 Approved soils area(s) ~~Free water if encountered and zones of seasonal saturation interpreted from redoximorphic features~~

4.2.1.9.11 Encumbrances

4.2.1.9.12 Central wastewater or water systems availability
4.2.1.9.13 Any other applicable information such as hydric soils (if any recorded state or federal wetlands) or refer to Statewide Wetland Mapping Project (SWMP)

add with extents clearly delineated

4.2.1.9.14 Any overhead utilities

4.2.1.9.15 Existing dwellings

Replace 4.2.1.9.11 with

4.2.1.10 The application/construction permit report may be submitted with the site evaluation, in an emergency situation, when there is a public health risk associated with a malfunctioning system. The permit shall not be approved until the site evaluation is reviewed and complies with these Regulations. Site evaluations needed to replace the malfunctioning system shall be given a priority review.

"Lot or land features such as but not limited to building concrete slabs, or spoil piles within evaluated area that would physically encumber the installation of a septic system."

4.2.1.11 Once received, the report shall be reviewed for compliance with current Regulations by a DNREC Environmental Scientist with a soil science background. If the report is in non-compliance, the Class D soil scientist shall be notified. The Class D soil scientist shall contact the Department to rectify the discrepancy. The Department shall not modify any site evaluation report unless requested by the Class D soil scientist. The corrections shall be submitted to the Department from the evaluator and a corrected copy to the owner, etc. The review process, which may include a field check, shall take place within ten (10) working days of receipt. (NOTE: If approval cannot be issued within ten (10) working days, the property owner or authorized agent shall be notified of the delay and a tentative date of approval or denial shall be given). Once approved, the report shall be mailed to the property owner or his/her authorized agent. A percentage of randomly chosen site evaluations submitted shall be

Replace with "Location of any jurisdictional wetlands, if available."

Add " 4.2.1.9.16 Any right of way or easement depicted on or reserved by a subdivision record plan or associated with a tax ditch."

Add " 4.2.1.9.17 One logged soil profile description per delineated design area."

field verified by DNREC staff. Site evaluations' requiring test pits should be reported to the Department prior to conducting the site evaluation.

4.2.1.12 Approval of a site evaluation indicates only that the site evaluation was conducted in compliance with these Regulations. It is not an indication of the correctness or quality of the site evaluation nor an indication that a permit can be issued.

4.2.1.13 The approved site evaluation report shall indicate the type of the initial and type of replacement system for which the site is approved.

4.2.1.14 Technical regulation changes shall not invalidate an approved site evaluation but may require the use of a different type of system.

4.2.1.15 The approved site evaluation shall be valid for five (5) years from the date of the Department's approval or the adoption of this Regulation revision unless a subdivision base plan restricting well and on-site wastewater treatment and disposal system locations has been approved by the Department and recorded in the local Recorder of Deeds Office. After the five (5) year period, a site evaluation as outlined in Section 4.2.1 shall be submitted to the Department for approval. This site evaluation will be reviewed as outlined in Sections 4.2.1.10 and 4.2.1.11.

4.2.1.16 Supplemental soil information submitted after the original site evaluation has been approved shall include a revised approval page, report page, soil profile notes, and revised site drawing locating supplemental borings/test pits. In all cases, the new report shall be approved provided all criteria for approval are met. If the purpose of supplemental work is to change the type of system previously prescribed, another review fee shall be required. Likewise, any borings/test pits conducted greater than 100 ft. from the previously approved area, with or without a system change, shall require a review fee. On larger parcels, the area evaluated shall be delineated on the site drawing.

4.2.1.17 The Department shall issue a notice of its intention to deny a site evaluation when appropriate. ~~Alternative technologies for on-site wastewater treatment and disposal systems, if appropriate, may be included in the letter.~~ The applicant still maintains his/her right to appeal the decision of the Secretary, within twenty (20) days of receipt, in accordance with 7 Del. C., Chapter 60, Section 6008.

4.2.1.18 A property owner or agent has the option to use observation wells and/or piezometers to demonstrate that redoximorphic features are not an indication of zones of saturation. Section 4.2.3 provides The following procedures for the use of observation wells/piezometers to determine the depth and duration of zones of saturation. Shall be implemented.

4.2.2
Study

Preliminary Wastewater Treatment & Disposal Review Soil Feasibility

unexpired

evaluated and

Before a denial is issued, the property owner shall install observation wells to verify site is unsuitable for wastewater disposal.

JACK, THIS IS WHERE WE LEFT OFF IN OUR MEETING. YOU AND I NEED TO SIT DOWN TO RE-WRITE 4.2.2

We jumped to 4.2.3 and discussed observation well policy but didn't formalize ideas yet. I'll work on this section with LF