AOSE ADVISORY COMMITTEE

MEETING MINUTES:

January 17, 2006

On January 17, 2006, the AOSE Advisory Committee held their fourth meeting in the Fifth Floor Conference room of the Office of Environmental Health Services, 109 Governor Street, Richmond, Virginia 23219. The following committee members attended in person or via polycom:

- John Burleson, Virginia Department of Health, Central Shenandoah Health District;
- Chip Dunn, P.E., AOSE
- Phil Dunn, AOSE;
- Andre Fontaine, P.E., Real Estate Agent;
- Dan Horne, Virginia Department of Health, Virginia Beach Health District
- Curtis H. Moore, AOSE, CPSS;
- Stuart McKenzie, local government
- Pam Pruett, AOSE;
- Neal Spiers, AOSE, CPSS;
- David Waldrep, Virginia Department of Health, Piedmont Health District;
- Dwayne Roadcap, Facilitator, VDH-Division of Onsite Sewage & Water Services; and
- Allen Knapp, Co-Facilitator, VDH-Division of Onsite Sewage & Water Services.

The following committee members were not present:

- Ken Addison, surveyor
- Ray Wilson, contractor
- Frances Wright, contractor

Handouts for the meeting included the following:

1. Meeting agenda;
2. Future Discussion Topics (updated 01/17/06);

Committee Purpose: The Advisory Committee makes recommendations to the Commissioner of Health on policy, procedures, and regulations for the Authorized Onsite Soil Evaluator (AOSE) program. The committee's discussion and recommendations are only limited by what the Committee wishes to address. Committee members and stakeholders may attend meetings via remote locations through the health department's video-conferencing system.

Committee Decisions: The committee reaches all decisions using a "full-consensus" mechanism, meaning that all members in attendance must agree before a recommendation is sent to the Commissioner. Members who do not attend a meeting are expected to support their fellow members on decisions reached in their absence.

Ground rules:

1. Respect all views and welcome new ideas.
2. Participate, be candid, and avoid personal attacks.
3. Be respectful when you have the floor. Keep comments pithy and concise. Limit speaking time to assure that all members have an opportunity to be heard.
4. Listen for new understandings and offer new perspectives.
5. Focus on agenda and topic. Assist facilitator and chairperson in keeping the discussion focused and on topic.
6. Avoid "side bar" conversations and hidden criticism.

The Committee will seek non-committee input on an as-needed basis. The facilitator or chair person may recognize a non-member. Depending on the flow of discussion and the topic, the chair person could allow non-committee participants to interject without being recognized on a case-by-case basis. David Fridley, David Waldrep, Curtis Moore, Phil Dunn, Pam Pruitt, Neal Spiers, and Frances Wright agreed to act as chair persons for the Committee on a rotating schedule.

Committee Discussion and Recommendations:

The committee offered a few edits to the 11/10/05 meeting and approved changes as final. The edits included typographical errors and adding a proposed cover sheet attachment.

The committee discussed whether AOSEs should be required to field stake their proposed well locations for construction permits (not certification letters). Some members noted that some AOSEs scaled their well locations without actually determining whether a well driller could drill there. Well drillers noted that AOSE/PEs were proposing wells in areas that were too overgrown, too steep, or too close to underground or overhead utility lines. Well drillers also noted frustration in trying to find proposed well areas when they were not field staked. When wells were shown more than 200 feet from a property line or property corner, well drillers needed field stakes. Another problem noted was that AOSEs would site a well spot instead of a well area, even for larger tracts of land. Without an adequate well area demarcated, well drillers had little flexibility in relocating for terrain issues or dry holes. One person mentioned that AOSE/PEs were less accessible than health department officials when a problem with well installation occurred. Well rigs weigh at least 60,000 lbs and are top heavy. How long does a well driller have to wait with a $500,000 dollar equipment when a well area or well site is

inappropriate? Many things might have changed since an AOSE/PE might have proposed the well, including landscaping, new grading, and utility lines.

Some committee members stated that there were logistical problems if the committee wanted well areas staked. Staking a well area might alleviate some problems and keep wells out of steep terrains and electrical lines; but what would happen when someone moved the stakes? The well driller would still be responsible for installing a well in the wrong location even if a stake had been set there. The well driller still had to verify that the stake was not moved. One AOSE stated that he was reluctant to field stake a well unless the well driller was present at the time he staked the well location. Most AOSEs stated that they did not prefer to stake a well area unless the well driller was present.

The committee stated that AOSEs needed flexibility in either choosing a well spot (for smaller properties) or for designating a well area, when possible. Whether a well area or well spot were staked, the well driller still needed to verify the well location's placement because stakes could be moved. If an AOSE staked a well area and that stake differed from the construction drawing, then the well driller needed to presume that the construction drawing was correct and the field stake in error. The committee did not recommend that AOSE/PEs be required to field stake their well areas. Most identified best practice as meeting with the well driller before drilling the well to assure that the well location was adequate and drilled in the correct place.

Some committee members suggested that the Virginia Water Well Association coordinate a topic on well area selection with other professional organizations (VOWRA, VEHA, VAPSS). Well drillers needed to interact more with AOSE/PEs to avoid many of the problems well drillers found in the field.

The committee discussed whether AOSE/PEs should field stake sewage system locations. All agreed that if an AOSE/PE were performing best practices, then that AOSE/PE was field staking the proposed drainfield location. Unless drainfield areas were staked, surveyors would have to guess where the boundaries of the system were. One AOSE noted that he prices his work to hold a pre-construction meeting on all of his work. He field staked his work twice, if necessary, to assure proper installation. From his perspective, the only way to assure a good installation was by making a second site visit and scale from the site plan after the clearing process. This AOSE required site plans along with topography for all of his construction permits, which exceeded permitting requirements from VDH. All agreed that AOSEs and health officials must be aware of planned improvements and site features if they were to adequately perform their work.

The committee agreed that AOSE/PEs should be required to field stake their drainfields and that any requirement placed on AOSE/PEs should also be required of VDH. The committee voted and approved the following recommendation to the Commissioner:

The AOSE Advisory Committee recommends that the Commissioner change the AOSE implementation manual to require AOSE/PEs and VDH staff to field stake the boundaries of any sewage system proposed. Field stakes should be semi-permanent (able to withstand 18-months of outdoor weather), visible for 18-months and placed into the ground. A wire flag is deemed to meet this requirement. Should the health department perform a Level 2 review and not find the field stakes, AOSE/PEs should not be required to re-stake the drainfield boundaries.

Most committee members noted that if VDH were to require AOSE/PEs to re-stake their drainfield locations following a Level 2 review, then property owners would incur added delays and expense. The committee felt that the requirement should be an unenforceable mandate. Tell AOSE/PEs what the expectation was but do not require re-staking. Designers will better understand their work if required to field stake. Some VDH employees noted that this same issue was discussed in two prior ad-hoc advisory committees and both prior committees recommended that VDH not require field staking of wells and drainfields. The recommendation resulted from liability concerns. The person who set the stake, or supposedly set the stake would get into trouble. The stake setter had to pay money when the stakes were in the wrong place. Someone wondered, what liability would someone incur if they set a stake across a property line but the paperwork showed the stake (well and/or drainfield) on the correct property? Without 3rd party verification (i.e., a surveyor), the person setting the stake could get into trouble.

Members recognized that field stakes could be removed or relocated so professionals were still required to verify stake locations before installing or approving installations. If systems were more than 200-feet from a property line and property corner, or if a contractor found thick underbrush that prohibited adequate field measuring, then a surveyor should be called to the site. Some committee members stated that finding the correct site was a top priority and anytime there was doubt about a system's location, do not proceed without help from a surveyor. Defer questions to the surveyor when necessary. One member noted that he had received incorrect information from surveyor, but in those cases, responsibility for the error fell to the surveyor, not the well driller or septic contractor.

One person stated that the committee's recommendation was sound but the issue of field staking got muddled when speaking about enforcing the staking requirement through a Level 2 review. This person thought that the documentation should be clear enough to resolve any difference between field stakes and paperwork and that there was a significant difference between staking the drainfield location and field verifying a particular design.

Committee members stated that they had seen many permits from local health officials with inadequate measurements. In many areas of the state, health officials triangulated drainfields and wells by measuring from rocks and trees, instead of property lines. They

stated that VDH should not perform these activities since VDH prohibited this type of activity from AOSE/PEs.

A committee member asked, how large of an area could be certified for a drainfield when recommending a certification letter? What was the intent of the certification letter? Was it meant to define a specific site or was it a general area to support a sewage system? Was it an assurance that a permit can be issued? What did the code say? VDH employees responded that certification letters were designed to reduce backlogs and specify a specific site for a sewage system. However, certification letters could be made as large as necessary to accommodate the sewage flow and soil properties found. Certification letters were more than specifying a general area.

Following discussion of field staking, the committee talked about consistency concerns for formal and informal plans. One person stated that some local health departments required formal plans for an ATU with a prescriptive dispersal system while others required informal plans. Some health departments were drawing "black boxes" on their permits for ATUs while other health departments were requiring owners to submit AOSE/PE plans. Some though engineers could not submit informal plans while others allowed engineers to submit informal plans. Some health departments were designing sewage systems for churches and office complexes while others required a wastewater characterization and AOSE/PE plans. Following a brief discussion, the committee stated that the problem of consistency from county to county was too overwhelming and too broad of a topic to address without more planning. The committee agreed to defer this topic to a future meeting.

The committee next addressed the following question: should VDH perform site evaluations and be in the design business? Should VDH focus its resources on plan review, being a record keeper, collecting and evaluating data, developing reports on the effects of sewage systems on public health and the environment, QA/QC, O&M, or perhaps be a direct service provider of last resort?

Roles & responsibilities of public sector vs. private sector:

Some committee members believed that VDH should not compete against the private sector and that all site and soil evaluations and system designs and inspections could be done more efficiently through the private sector. Some members suggested that VDH still would still need to maintain a core group of expertise in site and soil evaluation, design, and inspection. VDH still needed to properly manage private sector professionals and could not lose all of its expertise.

One member stated that whether VDH continued in its traditional roles as a site & soil evaluator and system designer. However, VDH did have more important things to do with its resources if these services could be adequately addressed in the private sector. VDH needed to better understand how onsite sewage systems were impacting wells,

drinking water, and public health. Right now, this member thought that their was a disconnect between what local governments expected from VDH and what VDH was contemplating (re-engineering itself from a service provider to risk management and regulatory oversight of the program). In rural, low-income areas, the citizens cannot afford to hire AOSE/PEs unless VDH required the private sector to accept a certain amount of pro-bono work as is done in the legal field. This member suggested that VDH would need to continue providing direct services to the low-income.

Another committee member noted that he could not think of any other government agency that provided design services. VDOT did not design the roads and DEQ did not design treatment plants. This person stated that people had become highly dependent on VDH for its direct delivery and tax subsidized services. Nevertheless, he thought that people seeking VDH services experienced an interaction of time that was beyond reason. This member felt that onsite sewage systems were overly regulated and that the amount of regulation was not proportional to what citizens obtained for that time cost. For example, in Loudoun County people received building permits within 30 – 40 days but experienced 60-90 day waits for a septic permit. Whatever VDH goals were for the future, this member suggested that VDH look closely at its interaction with customers. Maybe they needed a business model to interact with AOSE/PEs instead of owners.

Another committee member stated that as more issues are referred to the private sector, he is finding that 70-80% of his clients were reluctant clients. They were calling upon him because the "had to". This member felt that some local health departments were not willing or not capable of handling most applications for repair. If VDH is in the business of public health, then they needed to focus their resources on enforcement and data collection and analysis. For those people who could not afford medical care, they go to the health department's clinic. He thought the same philosophy might apply to onsite systems. If you were planning a $5,000 conventional drainfield, then you could not afford $1,000 for design work. Yet, that's the cost of doing business. Failing septic systems and new construction costs money. DEQ does not design a system for a county that has non-compliant sewage system. DEQ puts them under consent order to fix. VDH should follow a similar role. No other government agency provided design service, except VDH. The cost of developing properties or repairing systems should not be tax subsidized.

Another person noted that VDH could not just announce that it was changing its business model and stop performing direct services tomorrow. A transition was needed and VDH management needed to develop a transition strategy. This member asked whether the committee should recommend that VDH change its focus?

A VDH employee noted that some counties work fine with health departments providing direct services. This person stated that he found problems whenever work was turned over to the private. In this person's county, the health department was doing 95% of the work while the private sector handled 5% of applications. VDH could not just stop

providing services because there was an inadequate supply of private sector practitioners and the work was generally inadequate. This person suggested that local governments would resist privatization in the rural areas.

An AOSE on the committee stated that his requirements to process an application were much more expensive and detailed than what VDH required. His quality control and applicant requirements exceeded minimum regulatory standards so people naturally would want to use VDH services because VDH had cheaper and easier requirements than he did. This person stated that consumers were recognizing the difference in requirements and would gravitate toward VDH services as long as they were cheaper and required less supporting information (plats, site plans, etc.). For example, he required a plat and a survey for his certification letters while VDH employees did not require surveys or a plat. People routinely go to VDH for certification letters because it was cheaper and easier. Because VDH would process a certification letter for about $1/10^{th}$ of the application's true cost, then people would go to VDH. This AOSE suggested that if VDH were going to continue to process applications, then they should compete fairly with the private sector and charge appropriately for providing the direct service. VDH should also hold itself to the same standards expected of the private sector it regulates.

Another person stated that the question of whether VDH should change its business model was too big to tackle on the AOSE committee. Maybe the committee should look at the barriers that keep the business model in place. Another person asked how robust is VDH's program to make sure that sites are evaluated properly? If VDH were to do less site evaluation, then how would it maintain its skill set to perform other regulatory functions? Another person asked, what's the roadmap to get from here to there? Does the health department want to be a professional regulatory body?

From this discussion, varying committee members suggested that the following barriers and obstacles were keeping VDH from removing itself from service delivery:

1. Regional differences in program implementation
2. VDH fee structure
3. Double standard between private sector and public sector

    a. Scale of drawing (private sector must submit scaled drawings and VDH staff do not have to do this)
    b. Survey location for certification letters (VDH staff did not need to do it but AOSE/PEs did)
    c. preliminary designs for certification letters (VDH did not have to complete this paperwork that is required of AOSE/PEs)
    d. paperwork package is different (paperwork generated by VDH staff would not be approved if it were submitted by an AOSE/PE)
    e. borehole documentation (how many and where at, VDH did not have to show this information on a scaled field sketch while AOSE/PEs did)

f. documentation for an inspection report (VDH did not have to complete the same paperwork)
g. price (VDH charged significantly less for its services because it could not charge the actual cost to deliver the services)
h. certification statement (VDH staff did not need to sign a certification statement as required by AOSE/PEs)
i. VDH staff do not need to be AOSEs to do the work
j. Page numbering

Some committee members wondered why VDH was held to a different standard than what it required of AOSE/PEs. The criticism was addressing the presentation and appearance of VDH work relative to AOSE/PE work and was not a reflection on VDH work quality. AOSE/PEs suggested that doing paperwork to comply with VDH's expectations was very time consuming and VDH staff would gain more appreciation of its demands on the private sector if it were to follow the same paperwork requirements. One AOSE/PE noted that the cost of private sector work included the time and cost to produce paperwork in a form approved by VDH.

One person asked what was the value added of a to-scale drawing. Different members responded that to-scale drawings were very important because installers use a scale to locate drainfield corners. Scaled-drawings also limited clutter on the drawing and helped to avoid confusing measurements. Another person mentioned that many to-scale drawings were often faxed, which distorted scales and encouraged installers to install a system in the wrong place. One AOSE note that some health departments still required a measurement even though a scale was shown. Another person stated that having a scale was important because without it, the orientation and proportion of the drawing could easily cause confusion and change the system's installation.

Following discussion, the Committee made the following recommendation:

The committee recommends that the Commissioner investigate legislative and other means to change agency fees to account for actual costs to deliver services, which should include a cost reductions based on income. The committee believes that the Commissioner could find it appropriate to lower the processing fee for accepting all applications. VDH should charge user fees that would cover the cost to provide the service. The committee recommends separate charges for accepting applications, performing site evaluations, designing sewage systems, and inspecting sewage systems and wells.

The committee then discussed whether VDH should second guess work submitted by AOSE/PEs. For example, if VDH thought that a different repair option, possible cheaper existed, then should they tell the owner of that possibility? Committee members believed that VDH should not view its opinion and consultation as better than an AOSE/PE. If VDH had questions about the supporting AOSE/PE work, then they should contact the

AOSE/PE rather than put doubts into a client's head. Most thought that it was not proper for VDH to offer another consultation opinion after the owner had paid for an expert opinion. Without having been to the property, VDH could not know all of the factors that resulted in the specific design.

The committee then discussed how OEHS could improve communication among the stakeholders. One member noted that the committee tried to address this subject at the first meeting and the topic was too overwhelming to reach any consensus. Members had discussed having a FAQ section on the website and wondered whether that method would actually prove useful. Developing resources to construct, maintain, and keep up with such a section would be difficult at best given that the central office staff were already overwhelmed with work.

On member asked whether OEHS could provide a resource so that there was a single point of contact (one email address, for example, and not necessarily a person) so that persons could receive responses to policy and regulation issues. The reply could be sent to all stakeholders (VDH & AOSEs) via web or email. Some wondered whether this option would be helpful because a lot of questions were case specific and answers would have to be framed broadly enough to address all possibilities.

The committee asked whether they could assist VDH in developing standardized forms as listed in the implementation manual. Roadcap stated that he would look into what forms were being developed and how the committee could assist with form development. One member suggested that VOWRA could help develop needed forms. Roadcap also reported that he hoped to have the committee's prior recommendations provided to the Commissioner before the next meeting. The next AOSE Advisory committee meeting is scheduled for Thursday, March 9, 2006.

Attachment #1: **AOSE Advisory Committee**

Agenda for January 17, 2006 Meeting

See Attachment #1 of Future Discussion Topics.

9:00 AM – 9:15 AM: Review November 10, 2005 Meeting minutes

Actions: Modify and/or approve minutes

9:15 AM – 10:30 AM: Develop recommendation, if needed, for the following question:

Should VDH and AOSE/PEs be required to field stake their proposed well and drainfield locations?

10:30 AM – Noon: Develop recommendation, if needed, for the following question:

Can VDH provide more consistency as to when it requires formal plans from a PE on alternative systems?

Noon – 12:30 PM: Working lunch. Continue discussions:

nmShould VDH perform site evaluations and be in the design business? Should VDH focus its resources on plan review, being a record keeper, developing reports on system function, O&M, QA/QC, and perhaps do site evaluations "as means of last resort"?

12:30 PM – 2:00 PM: Continue discussions

2:00 PM: Meeting Adjourned.

Next meeting dates are as follows: 3/9/2006; 5/11/2006; 7/13/2006; 9/14/06; 11/9/06.

Please contact Dwayne Roadcap at (804) 864-7462 with other ideas for discussion at this meeting. Primary meeting location in the OEHS conference room, 5th Floor, 109 Governor Street. Video-conferencing via local health departments provided with advance scheduling.

Attachment #2 for 01/17/06 Meeting

Future Discussion Topics

AOSE Advisory Committee

Note: Yellow Highlights indicate that Committee has discussed the item

Process Issues

1. **Why are different health districts implementing the AOSE policy and regulations differently?[1]**
2. **Can VDH require AOSE work on sites previously approved where the owner wants to change things (ie. Changes in house location, well location, number of bedrooms, etc.)?[2]**
3. **To what extent should VDH help AOSE/PEs research files for proposed drainfields and wells on neighboring properties? How can this need be better coordinated?[2]**
4. **Can deemed approval apply to proprietary, pre-engineered systems without a change to the law?[2]**
5. **Can VDH apply "deemed approval" to all AOSE/PE work or work that a PE uses with a VDH certification letter to help speed up the process for owners?[3]**
6. **Should VDH and AOSE/PEs be required to field stake their proposed well and drainfield locations?**
7. **Can VDH provide more consistency as to when it requires formal plans from a PE on alternative systems?**
8. **Should VDH perform site evaluations and be in the design business? Should VDH focus its resources on plan review, being a record keeper, developing reports on system function, O&M, QA/QC, and perhaps do site evaluations "as means of last resort"?**
9. **Should VDH discuss waivers from secondary effluent or pressure dosing with owners who submit repair applications with supporting AOSE/PE work? VDH staff do not generally interfere in the design consultation between client and AOSE, but VDH staff do not know whether the AOSE discussed the option for a waiver with the client, or for that matter, the myriad other design options available when treatment and pressure dosing are used.**
10. **How can OEHS improve its communication of statewide policies to AOSE/PEs? OEHS seems to create additional process through electronic communication without adequate notice to all stakeholders.**

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[1] Discussed at 7/12/05 meeting. No recommendation reached.
[2] Discussed at 8/9/05 meeting. Recommendation in meeting minutes.
[3] Discussed at 11/10/05 meeting. No recommendation reached.

Paperwork Issues

1. **Does AOSE have to stamp every page?**[1]
2. **What is the minimum quality of work expected? (handwritten vs. type, to-scale drawing, showing only the "good" borings, field staking the footprint, field staking the well area, etc.)**
3. **How can we develop standardized forms as listed in the implementation manual?**
4. **How can VDH improve its letters of approval to assure that contractors know the exact location of the property and where to install the system? Health departments use different dates for their letters of approval and it is confusing when compared to the AOSE package, which often has different dates. Sometimes there are multiple letters of approval for different sized houses.**
5. **Should VDH require its staff (especially AOSEs) to produce the same paperwork that is expected of AOSEs working in the private sector (i.e., scaled drawings, stamp & seal every page, page numbering, etc.)?**
6. **VDH does not require a survey plat for its work but AOSE/PEs must have it. VDH requires AOSE/PE to survey locate their work for certification letters but does not require it for their work. AOSE/PEs must show their work to scale but health department staff can "triangulate" their measurements. How can VDH stop the double standard?**
7. **If an AOSE is available to inspect his design, why can a contractor or owner hire a different AOSE to do the inspection? It is best practice to have the AOSE/PE that designed the system to inspect it, if possible.**
8. **If an AOSE requires more stringent construction (say Sch. 40 instead of corrugated pipe for the header line) and another AOSE inspects the system, does the inspecting AOSE have to approve the installation even if the contractor did not install the system as specified by the design AOSE?**

Installer Issues

1. **How can installers (well drillers and septic contractors) better coordinate inspections with the private sector?**
2. **How does the installer know that the permit it receives from the owner/AOSE is the correct permit?**
3. **How can stakeholders limit garages, sheds, outbuildings, swimming pools, etc. from encroaching into the proposed footprint before a system is installed?**
4. **How can stakeholders better communicate when a permit change is needed and the contractor is on-site to do the work?**

5. **Can VDH or AOSEs inform the installers at the time of inspection whether the system's construction passes? Often, people leave without giving an answer and the installer is left there with people and equipment.**
6. **Well drillers often receive different looking permit packages from AOSEs. Some paperwork has measurements shown, others are shown "to-scale", some do not include a cover page, others simply have a drawing. Should AOSE permit packages be more uniform to assist the installer?**
7. **Should an AOSE be required to field stake by survey their well locations when conventional means of measuring is impossible? Well drillers find permits with scaled drawings but you cannot measure to the well site without a surveyor.**

Inspection Issues

1. **Why is an "as-built" drawing needed if the system is installed just as shown on the construction permit?**
2. **Should AOSEs fill out a different inspection form? Currently, they do not need to list the exact components installed.**
3. **How can VDH assure equal treatment in the review of AOSE work from varying districts and counties? Currently, AOSE work and their package designs must meet different standards in varying counties and health districts.**
4. **Should a contractor be able to hire an inspector for their job? Is there a conflict of interest in an AOSE accepting money from a contractor for their inspection? Many AOSEs are including inspection notices in their packages, including charges based upon lead-time notification, which the contractor seems to pay.**
5. **Should AOSEs be required to perform safe, adequate, and proper (SAP) inspections under Title 32.1-165 of the Code of Virginia? Although it may be that private sector AOSE's have no obligation to accept all service requests, nonetheless, as members of a state enforced monopoly, as a group, should there be some obligation to provide the full range of services for which they are authorized?**

Rule/Policy/Reg Issues

1. **What is the practice of engineering? Can AOSE design duplex or small commercial facilities?**
2. **How can fees charged be changed or addressed? (Local vs. state)**
3. **How to get consistency across health district lines?**
4. **How can customers be better informed of the AOSE/PE requirements for alternative systems? Often, contractors are left holding the bag to explain system components and O&M.**
5. **Should VDH be more involved with O&M agreements for alternative systems?**

Training & Testing Issues

1. **What are the training needs for AOSE/PEs and VDH employees?**
2. **Can VDH begin to offer more training courses for alternative systems, inspections, etc?**
3. **Can VDH create an AOSE-in-Training category for those areas of the states where there are too few AOSEs and pricing for the work is high? In Southwest VA, there are too few AOSEs for the work needed. Surveyors might be able to take some classwork for the soil training to enter such a category.**
4. **Should a suggested minimum standards of "good" practice document be created for AOSE work? This document would not have to be binding but would offer guidance to AOSEs and set the "standard" for what should be done.**

Enforcement Issues

1. **When should VDH take enforcement action against an AOSE?**
2. **What should the penalties be for submitting poor work to the health department?**
3. **How can VDH take quicker action when a problem is encountered with bad private sector work?**