
AD HOC ADVISORY COMMITTEE
FOR THE
AUTHORIZED ONSITE SOIL EVALUATOR
(AOSE) PROGRAM

FINAL REPORT AND
RECOMMENDATIONS
TO THE
VIRGINIA DEPARTMENT OF HEALTH

AUGUST 18, 2000

PREPARED BY THE
INSTITUTE FOR ENVIRONMENTAL NEGOTIATION
SCHOOL OF ARCHITECTURE UNIVERSITY OF VIRGINIA

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EXECUTIVE SUMMARY

The Ad Hoc Advisory Committee for the Authorized Onsite Soil Evaluator (AOSE) Program, comprised of 22 members representing a range of stakeholder interests, was convened by the Virginia Department of Health and facilitated by the Institute for Environmental Negotiation, University of Virginia. The Committee was charged with developing recommendations for permanent regulations for the AOSE program. It met for six all-day meetings, which were held from April through July 2000, and during these meetings the Committee operated by consensus.

At the outset of its work, the Committee adopted criteria that would serve both as its desired outcomes for the new AOSE program and as its criteria for judging the merit of proposed recommendations. These criteria, which were not prioritized, should be considered of equal importance.

Advisory Committee Criteria for Success

The Committee's recommendations should:

- Establish consistency throughout state.
- Reduce delays.
- Improve responsiveness.
- Provide no less protection of public health and of the environment (water supply and quality).
- Provide clarity of the division of responsibilities.
- Reflect "Best Uses" of the public and private sectors.
- Provide certification that is effective and efficient.
- Comply with Virginia Code, Regulations, and policy, including other agencies.
- Provide the least burdensome alternatives.

At its final meeting the Committee assessed how well its recommendations fulfilled these criteria. Overall, the Committee believes that its recommendations accomplish these objectives. Two concerns, however, were expressed. Committee members were not sure whether it had sufficiently addressed the criteria of "best uses" of the public and private sectors. This should be an issue addressed in future meetings of the permanent Advisory Committee. Also, with regard to the objective to "provide the least burdensome alternatives," the Committee felt that this criteria was difficult to assess at this early stage and could only be judged over time, as the new program is implemented. This, too, should be assessed by the permanent Advisory Committee.

The Committee’s principal interests for the overall AOSE Regulatory Program emerged during its early discussions. Later discussions surfaced an additional issue concerning the need in the new AOSE program to harmonize the requirements and practice between public and private AOSEs. Together, these form the recommended goals and conceptual framework for the new AOSE program.

**Recommended Goals and Conceptual Framework
for the AOSE Regulatory Program**

- Protect public health and thereby minimize poor designs and the number of permits revoked.
- Foster responsible conduct by the private professionals who are implementing the program.
- Provide VDH consulting guidance to the private professionals who are implementing the program so long as this does not add to backlogs and supports a responsible private sector.
- Minimize the need for remedial action, which can be costly in terms of both dollars and time delays.
- Strive for establishing the same requirements for VDH and Private AOSEs.

The Committee identified and prioritized the full range of issues that it felt should be addressed in the development of the new AOSE program. Working within the time constraint of needing to provide recommendations by August 15, 2000, the Committee was able to address the three groups of highest priority issues. The consensus recommendations listed below represent the Committee’s best efforts to address member concerns while still honoring its overall program goals and decision criteria. While most of the Committee’s recommendations concern the permanent regulations, a number of its recommendations relate only to VDH policy.

The Committee agreed that the issues which it did not have time to discuss nevertheless need to be addressed, whether at further Ad Hoc Committee meetings that may be called by the Virginia Department of Health, or by the permanent Advisory Committee that it recommends be established under the new regulations.

RECOMMENDATIONS CONCERNING QUALITY CONTROL

Note: The following recommendations apply to only individual lots unless otherwise noted.

RECOMMENDATION #1

“Deemed Approved:” *The new regulations should continue the same timeline for permit*

approval with Level 1 reviews and “deemed approval” as outlined in GMP 100 and the Emergency Regulations.

RECOMMENDATION #2

Final inspections: *The new regulations should establish that, when a permit is issued on the basis of an AOSE/ PE design and evaluation, then the AOSE/PE is responsible for the final inspection of that system. If the AOSE is unable to inspect the system, the VDH will do so for a fee; otherwise the VDH will not inspect those systems. The VDH will conduct final inspections for all other systems.*

RECOMMENDATION #3

VDH Professional Courtesy Reviews: *The new regulations should make limited numbers of “professional courtesy” VDH field reviews available for AOSE/PEs. When such review is requested, the application will not be subject to counting for backlog calculation and there will not be any time limits for these reviews. A standard for “reasonableness” will apply to both the time in which courtesy field reviews are conducted and the frequency of requests by any individual.*

RECOMMENDATION #4

VDH Professional Courtesy Reviews-Subdivisions: *With regard to subdivisions, the new regulations should not prohibit professional courtesy early consultation, similar to a preliminary engineering conference, after the “base map” for the subdivision is developed but prior to submission of the subdivision package.*

RECOMMENDATION #5

AOSE Appeal: *The new regulations should provide that, whenever the VDH performs a field check (Level 2 review) the AOSE should receive a copy of the Level 2 review. If the VDH intends to revoke a permit approval, the AOSE shall be able to challenge the factual basis for the VDH revocation.*

RECOMMENDATION #6

Burden of Proof for Permit Revocations: *The new regulations should stipulate that there will be a high-level test for revocations of permits. Simple disagreement or interpretation of soil conditions is not sufficient to revoke a permit. The proposal for a high burden of proof should be developed by further meetings of the Ad Hoc Committee or of the permanent Advisory Committee.*

RECOMMENDATION #7

Responsibility for Operation and Maintenance of On-Site Wastewater Treatment Systems: *The Committee recognizes that education of property owners with on-site wastewater treatment systems about proper operation and professional maintenance, particularly in the case of engineered systems, is a critical issue for the protection of both public health and ground water quality. The Committee urges the VDH to address this issue, particularly to establish standard mechanisms for how operational knowledge about on-site systems can be communicated to new owners or occupants. The VDH should continue its role of protecting public health and being the “first responder” by working with problems encountered with all*

existing onsite systems. But it also should seek to improve property owners' understanding that they bear responsibility for proper operation and maintenance of their on-site systems.

Ideas and options that the VDH may wish to consider to achieve these objectives are:

- *The homeowner could be provided with an operational manual by the AOSE and VDH at the time of system approval.*
- *A schedule of mandated inspections would be administered.*
- *Disclosure of information about the system to the new homeowner at time of purchase.*
- *Public education campaign by VDH.*
- *AOSE/PEs would be required to warrant their work for 1 year.*
- *Real estate firms and lending institutions should require system check and/or maintenance when property changes hands.*
- *Require a notice of need for maintenance contract on systems.*

RECOMMENDATIONS CONCERNING PROFESSIONAL STANDARDS

Minimum Requirements for the AOSE

RECOMMENDATION #8 General Principles

- *The AOSE written and field tests must be taken and passed by all those who are currently an AOSE under the emergency regulations and by all those who wish to become an AOSE in the future (excluding those who already have taken the AOSE test dated January 2000 or thereafter).*
- *These tests would have to be passed by a stipulated time (to be determined by the VDH).*
- *In the interim transition period, AOSEs may have the option of submitting a septic system application for a Level 2 Review, which can serve as the field test component of the AOSE test.*
- *On the written and field tests, questions should relate only to the regulations and the application of those regulations. Test questions should not cover areas of personal philosophy or areas of pure soil science or pure engineering.*
- *Qualified AOSEs under the temporary regulations should be allowed to perform AOSE work at least until July 1, 2002, following the same requirements as for CPSSs under the emergency regulations.*

Specific Additional Requirements

- *CPSS: To become an AOSE, all persons who are CPSSs must pass the AOSE written and field tests.*
- *Non-CPSS: To become an AOSE, a person who is not a CPSS and who has a related four-year degree such as science or engineering, must have at least four years of full-time field experience, must pass approved AOSE training, and must pass the AOSE written and field tests.*
- *A person who is not a CPSS and who has a college degree not related to AOSE work, or who has a two-year college degree, must have at least six years of full-time field experience, pass approved AOSE training, receive a sign-off from either a supervisor or an AOSE which states that the person is sufficiently experienced to become an AOSE, and must pass the written and field AOSE tests.*
- *A person who is not a CPSS and who has no degree, must have at least eight years of full-time field experience, pass approved AOSE training, receive a sign-off from either a supervisor or an AOSE which states that the person is sufficiently experienced to become an AOSE, and pass the written and field AOSE tests.*
- *AOSE: Any person who has passed the AOSE tests dated January 2000 or later, will be considered an AOSE under the permanent regulations. Persons who have been operating as AOsEs under the emergency regulations, but who have not yet passed the AOSE written and field tests, must pass the AOSE tests by (a date as yet to determined) in order to continue submitting applications as an AOSE.*
- *EHS: To become an AOSE, all persons who are Environmental Health Specialists employed by the Virginia Department of Health must meet one of the above requirements.*

RECOMMENDATION #9

Training: The new regulations should reflect the intent of creating regional training, but should allow for flexibility, (e.g., “AOSE training will be held in a manner similar to current VDH training.” The regulations should be accompanied by policy recommendations to have training in different regions of the state.

The Committee strongly recommends that monies be allocated from the Onsite Indemnification Fund to provide training for AOSE/PEs

Access to Information

RECOMMENDATION #10

Requests for Information: The new regulations should specify that AOsEs need to provide clear and specific information (tax #, parcel #, etc.) when requesting records from VDH. The VDH should develop a standardized format for requests for information and a standardized format for VDH responses. Features should be shown as per 12 VAC 5-610-460. However, the new regulations should allow sufficient flexibility to enable current systems that work well to continue.

RECOMMENDATION #11

Information Technology: *The VDH should make information available on the web, with a GIS interface, to enable free and easy access for everyone.*

RECOMMENDATION #12

AOSE Liability: *The new regulations should indicate that AOSEs must make a “good faith” effort to get accurate information, and that their signature certifies that all information submitted is true and correct to the best of the AOSE’s knowledge. The regulations should state that AOSEs will not be held liable for inaccurate or incomplete information provided to them.*

RECOMMENDATION #13

VDH Assistance: *The VDH should emphasize and define the role of clerks in providing information and ensuring that records are kept organized. The VDH should establish guidelines for a uniform filing system throughout the state. The VDH should send AOSEs a copy of permit approvals. There should be no charge for retrieval of records for AOSEs, where possible.*

RECOMMENDATION #14

Timeframes: *The VDH should establish specific timeframes for VDH provision of information to AOSEs.*

RECOMMENDATIONS CONCERNING ADMINISTRATIVE ISSUES

Content of Application Forms

RECOMMENDATION #15

Paperwork reduction: *The new regulations should aim as an overall goal to reduce the paperwork required for individual lot applications and subdivision packages. Several recommendations for consideration are that the VDH:*

- 1) eliminate repetition of the name and address at the top of each page of the application package;*
- 2) require three copies of only the primary construction permit and not of the additional data which accompanies it (soil data, etc.);*
- 3) hold denied applications for a defined period of time, so that only the revision or update would need to be resubmitted in lieu of the entire package; and*
- 4) for subdivision packages, condense the design form and summary sheet into a one-page table format.*

The permanent regulations should not contain specific requirements for submittal packages and, instead, should contain a general statement that the packages must be complete as

determined by the Division. The VDH will, by the effective date of the regulations, develop the package requirements with the Ad Hoc Advisory Committee and publish a new GMP.

Standard Interpretation of Terms

RECOMMENDATION #16

Education: *The new regulations should emphasize the need to encourage and promote standard interpretation of terms throughout the state. The VDH should identify terms and situations that are susceptible to varying interpretation and develop standard interpretations that are included in AOSE training, the AOSE written and field tests, and AOSE continuing education courses.*

Consistent Application Process Throughout the State

RECOMMENDATION #17

Encouraging County “Opt-In:” *The new regulations should encourage and enable localities to “opt in” to the state permit approval process, which streamlines the process by incorporating both state and local requirements into one review.*

RECOMMENDATION #18

Education: *The VDH should develop an aggressive education and outreach program to localities, particularly those with local ordinances governing septic design and location. The goal of this program should be to inform localities about the new AOSE program, how the approval process will interface with enforcement of any local ordinances, and the advantages of “opting in” to the VDH approval process.*

RECOMMENDATION #19

Information for AOsEs: *The VDH should make available to all AOsEs a list of counties with local ordinances governing septic design and placement, and a list of those counties that have “opted in.”*

RECOMMENDATIONS CONCERNING WELLS

RECOMMENDATION #20

Certification and Inspection: *The AOSE/PE should be given authority to certify well site/area pursuant to 12 VAC 5-610-630. The Committee further recommends that the new regulations specify that AOSE/PEs must inspect well and septic permits but that inspection of well-only permits be optional.*

RECOMMENDATION #21

Training: *The VDH should open its well regulations training module to AOSE/PEs on an optional basis. The “Basic Training” for EHSs/AOsEs should include an introduction to wells sufficient to enable the AOSE to site a well.*

RECOMMENDATIONS CONCERNING A PERMANENT ADVISORY COMMITTEE

RECOMMENDATION #22

The new regulations should establish a permanent AOSE Advisory Committee, with the following membership.

11 to 14 Members	PERMANENT AOSE ADVISORY COMMITTEE Membership
4	AOSE from different parts of the state, and one or more must be members of the Virginia Association of Professional Soil Scientists (VAPSS)
4	VDH field employees who are AOsEs
2	Contractors (system installers)
1	PE
3	<p>Discretionary voting positions, who are selected by the Committee for appointment by the State Health Commissioner, for up to one year, and renewable thereafter. These positions are intended to provide substantive expertise and may be drawn from the following categories, but are not limited to these.</p> <ul style="list-style-type: none"> ● Builders/ Developers ● Well Drillers ● Local Governments ● Lending Institutions ● Surveyors
<p><i>Note: An effort also must be made to ensure that at least some of the Advisory Committee members are homeowners with experience with onsite septic systems, so that the homeowners' interests may be represented on the Committee.</i></p>	

AD HOC ADVISORY COMMITTEE BACKGROUND

Purpose

The Ad Hoc Advisory Committee on the Authorized Onsite Soil Evaluator (AOSE) Program was convened by the Virginia Department of Health (VDH) for six all-day meetings on April 19, May 9, June 7, June 20, July 12 and July 25. Committee members were asked to advise the VDH in two broad areas. The first area involved implementation of the Emergency Regulations for AOSEs and the policies that support those regulations. The second area involved developing recommendations for the Permanent Regulations that are required by law to replace the Emergency Regulations.

Advisory Committee members were selected to represent a broad range of interests in the AOSE program, reflecting both geographic and substantive diversity. (*See page 42 for a list of Committee members.*) Some of these Committee members had participated in the 1998 AOSE Advisory Group, which had developed recommendations for the AOSE regulatory program based on the provisions of Senate Bill 415 (1994). The recommendations of the 1998 Advisory Group focussed primarily on reducing backlogs in permit approvals and on visioning expanding roles for AOSEs, as the legislation at that time did not give explicit site approval authority to AOSEs for certification letters or subdivisions. In the legislative session following these meetings, legislation was passed that introduced significant changes in the AOSE program. The 1999 legislation expanded AOSEs authority for approving sites, and added Professional Engineers (PEs) in consultation with an AOSE, by mandating that VDH shall accept private soil evaluations and that such permit applications shall be “deemed approved” within 15 days.

Consensus Process

At its first meeting, the Committee decided to operate by consensus in developing its recommendations. The Committee agreed that consensus would mean that everyone must be able to at least “live with” and support the full package. While some might have reservations about parts of the package, as long as everyone is able to live with the full package, consensus would be achieved. If one person is not able to live with or support the full package, then consensus would not be achieved and the Committee would engage in further discussions.

Goals and Decision Criteria

Through discussion, the VDH representatives clarified that there are two primary intents of the legislative mandate for the AOSE program: to reduce the permit backlogs and to privatize all or part of the AOSE program. During its discussion of how this mandate might be implemented, the Committee identified several key interests that it felt should not be compromised by the new program. Specifically, the new AOSE program would need to safeguard public health, foster responsible conduct by the private professionals who are implementing the program, provide consulting guidance to the private professionals who are implementing the program, and minimize the need for remedial action or revocation of permits. Later discussions surfaced an additional issue concerning the need in the new AOSE program to

harmonize the requirements and practice between public and private AOSEs. Together, these form the recommended goals and conceptual framework for the new AOSE program.

Goals for the AOSE Regulatory Program

- Protect public health and thereby minimize poor designs and the number of permits revoked.
- Foster responsible conduct by the private professionals who are implementing the program.
- Provide VDH consulting guidance to the private professionals who are implementing the program so long as this does not add to backlogs and supports a responsible private sector.
- Minimize the need for remedial action, which can be costly in terms of both dollars and time delays.
- Strive for establishing the same requirements for VDH and Private AOSEs.

The Committee adopted criteria that would serve both as its desired outcomes for the new AOSE program and as its criteria for judging the merit of proposed recommendations. These criteria, which were not prioritized, should be considered of equal importance.

Advisory Committee Criteria for Success

The Committee's recommendations should:

- Establish consistency throughout state.
- Reduce delays.
- Improve responsiveness.
- Provide no less protection of public health and of the environment (water supply and quality).
- Provide clarity of the division of responsibilities.
- Reflect "Best Uses" of the public and private sectors.
- Provide certification that is effective and efficient.
- Comply with Virginia Code, Regulations, and policy, including other agencies.
- Provide the least burdensome alternatives.

AOSE Program History

As presented to the Advisory Committee, the history of the Authorized Onsite Soil Evaluator program began with Senate Bill 415 (SB415) passed in 1994. This Bill initiated several changes:

- A “certification letter” could be sought in lieu of permits, principally to ease the backlog of permits caused by subdivision approvals.
- It established the concept of a construction permit when ready to build, which would specify a site design.
- It mandated that a program be established for qualifying the Authorized Onsite Soil Evaluator (AOSE).
- It provided for interim use of the Certified Professional Soil Scientist (CPSS), deemed qualified with “Knowledge, Skills, and Abilities” (KSA) necessary to conduct onsite soil evaluations.
- It required the VDH to hire an AOSE if a permitting backlog has developed.
- It set up an indemnification fund to provide liability relief for the property owner.

During the 1994 to 1998 implementation period, the following policy guidance papers were developed:

- GMP 51, which established priorities for the submission of applications.
- GMP 52, which established a format for the certification letter.
- GMP 55, which defined the backlog as 15 days.
- GMP 61, which was a Question and Answer document.
- GMP 71, which provided instructions for VDH contracting with an AOSE.

In 1998, the UVA Institute for Environmental Negotiation was hired to convene an Advisory Group to develop recommendations for implementing regulations for SB 415. The Advisory Group completed its work in the fall of 1998 and included recommendations that also went beyond SB415.

The interim period for CPSSs authorized to act as AOSEs expired on July 1, 1996. The VDH essentially failed to implement a program for qualifying individuals as AOSEs at that time. The Advisory Group recommendations and subsequent 1999 legislation addressed this issue.

In 1999 the General Assembly adopted Senate Bill 963 and House Bill 2337, which became effective on July 1, 1999. These pieces of legislation initiated the following changes:

- The VDH was now required to accept evaluations and designs from both AOSEs and PEs.
- It established a system for residential development, which includes certification letters, subdivision reviews, and permits.
- It established the principle that a permit is “deemed approved” if the VDH fails to act on the permit within a specified time frame of 15 days. Other “deemed approval” time

limits were established for multiple certification letters (20 days) and subdivision reviews (60 days).

To begin implementation of the new legislation, the VDH issued GMP 99 and GMP 100 in the summer of 1999. This policy guidance specified that persons with CPSS credentials, and with certain knowledge, skills and abilities, could become an AOSE.

On January 3, 2000 the VDH issued emergency AOSE Regulations to implement the 1999 legislation. The challenge for the VDH is to develop permanent regulations that will fully implement the 1999 legislation and that will also eliminate or minimize the problems created by the emergency regulations.

The timeframe for the regulatory process is governed by the Administrative Process Act, which establishes strict timeframes for certain events. The VDH must propose final AOSE regulations within six months of emergency regulations, or by July 3, 2000, by filing a Notice of Intended Regulatory Action (NOIRA). A 60-day public comment period then follows in which at least one public hearing will be held by VDH. Because the Advisory Committee would not be able to have finished its work by July 3, the VDH would simply submit the emergency regulations. The VDH indicated that its intention was for the Advisory Committee to complete its recommendations by mid-August, and then the VDH would use these recommendation along with any additional public comment received during the 60-day period, to develop and submit proposed final regulations by November 6, 2000. After these final regulations are published, a 30-day comment period is provided. Assuming that less than 25 requests for an additional comment period are received, the comment period will end December 6, 2000. The emergency AOSE regulations will expire on January 3, 2001 and the final regulations will then be in force.

Issues and Priorities

Committee members were asked to list, individually, the problematic issues that have arisen as a result of the Emergency Regulations and which they felt needed to be addressed by the Committee. Next, members were asked to think about other kinds of issues that also should be addressed by the permanent regulations. The Committee then organized the issues by themes. Lastly, the issues were prioritized by having members, individually, assign each issue a value of 1 to 3, and then by combining and adding everyone's scores. The results of this exercise are listed below.

PRIORITY #1 ISSUES: (SCORE OF 45-49)

Quality Control

- 48 Standards of review
- Completion statement and inspection statement
- 46 Approval or issuance of permits without a field check, and 10% Level 2 Reviews
- 46 Level-2 review

Professional Standards

- 47 Minimum requirements for the AOSE
- 46 Ability of AOSE to submit an incomplete or “advisory report” on soil only (no designs)
- 45 Access to VDH records for information (and FOIA)

PRIORITY #2 ISSUES: (SCORE 40-44)

Administrative Issues

- 42 Content of application forms
- 42 Standard interpretation of terms.
 - Different counties have different interpretations; lack of AOSE information; private sector does not have interpretations for such things as trench depth and slope.
- 40 Consistent application process/ format throughout state.
 - Local health departments have different contour requirements for subdivision approval.
 - Plat/ survey/ certification letter requirements.
 - Location of drainfields
 - All construction permits go to VDH. Certification letters go to consultants.

Local Ordinance Issues

- 45 Local ordinances
 - Clarification of “opt in” and “opt out;” what to do about counties that are trying to make VDH review every site, which is inconsistent with state policy?

PRIORITY #3 ISSUES: (SCORE 35-39)

Professional Standards

- 39 EHS-AOSE double standard
 - Do regulations only apply to private sector AOSE or also to EHSs that are AOSEs?
- 38 Training for AOSEs:
- 37 Timeframe for accepting non-AOSE submissions and to make everyone an AOSE.
- 35 Ability of PE to submit applications

Other Issues

- 36 Siting of well and well permit
- 35 Advisory Committee: should there be one?

PRIORITY #4 ISSUES: (SCORE 30-34)

Administrative Issues

- 33 Sites previously denied

Liability Issues

- 34 Liability issues
- 33 Appeals time limit
 - The commissioner or any person injured may request a hearing, without any time limit. Should a time limit for the appeal be set?

Professional Standards

- 34 Who can locate a drainsite?

Quality Control

- 32 Removal of redundant inspection (Pick one person for inspection only)
- 31 Incorporate “Bigger Picture” of groundwater risks into application forms
 - 200+ foot radius for evaluation
 - Ensure protection of groundwater in AOSE regulations

PRIORITY #5 ISSUES: (SCORE 20-29)

Professional Standards

- 28 Test failure and next steps (establish minimum number of attempts to take and pass written and field tests before requiring training)

Administrative Issues

- 29 Action recommended by VDH on denial: what action is recommended in the denial letter? Formalize this for the AOSE.
- 16 Fee structure for VDH. (Fees are set by Code; the government can't compete with the private sector, which is contrary to Code.)

Liability Issues

- 29 Indemnification Fund

Other Issues

- 15 15-day timeframe for “deemed approval”

Issues Discussed

During its next five meetings, the Committee discussed Priority 1 through Priority 3 issues. For each issue, the Committee identified member concerns and then worked to find solutions to those concerns which everyone could “live with.” The process of dialogue, brainstorming, and exchange of views enabled the Committee to reach consensus on most of the issues addressed. The Committee was not able to reach consensus on several issues, which are listed below.

ISSUES WHERE CONSENSUS WAS NOT ACHIEVED

- **Timeframe for the interim or transition period, after which non-AOSE submissions will not be accepted:** Some members felt that a long interim period, through 2004, is needed to reflect the logistical problems of offering adequate training in the regions for all those who wish to become an AOSE. Others felt that sufficient training could be offered and therefore favored a shorter period, through 2002, so that “bad actors” would not be allowed to continue operating for so many years. (*See meeting summary for June 20.*)
- **Professional Courtesy Reviews:** The Committee could not reach consensus on whether the regulations should stipulate how requests for VDH professional courtesy reviews be made. Some members felt that the regulations should clearly define the process of how AOSE requests to the VDH are submitted, to avoid overuse and abuse. Others felt that regulatory stipulations about such consultations would have a detrimental effect on open and informal communications between the VDH and the private sector, and that such stipulations are therefore undesirable. (*See meeting summary for July 12.*)
- **Level 2 Reviews:** The Committee could not reach consensus on the *timing* of Level 2 Reviews. AOSE members felt strongly that *all* Level 2 Reviews should be conducted prior to approval of the construction permit, to avoid the need for costly remedial action and delays at the expense of the homeowner. Others felt that the VDH should have the discretion of choosing when it wishes to conduct a Level 2 Review. (*See meeting summary for May 9.*)
- **Survey or Survey Plat-Located Drainfield:** The Committee did not achieve consensus on the issue of whether public AOSEs, or EHSs, should be required to site the drainfield on a survey or on a copy of the survey plat. There were strong sentiments that such a requirement is imperative for both public health and professionalism, but one member felt strongly that such a measure was simply not practical or achievable by some local health departments. The Committee did agree, however, that the VDH should strive for the goal of establishing the same requirements for VDH and private AOSEs, and that this should serve as the conceptual framework for its recommendations. (*See meeting summary for July 25.*)

REMAINING ISSUES FOR DISCUSSION

- **Rural Area Inspections and Fee Structure:** The Committee discussed a potential problem that might arise in some rural areas, where AOSEs might be unable or unwilling to conduct final inspections when inordinate time and cost would be incurred in traveling long distances for the final inspection, such as a

seven hour return trip for one system. The Committee agreed to a solution whereby, in such instances, the VDH could inspect systems for a fee. However, the Committee felt that more work needs to be done on this proposal in its wording to ensure that it does not become a loophole that enables AOSEs to dodge their new responsibility of inspecting systems. Also, the Committee recommends that the VDH develop a fee structure for VDH inspection of AOSE systems. (*See meeting summary for July 12 meeting.*)

- **VDH Review Methodology:** The Committee agreed that a consistent and specific methodology for conducting the initial VDH Application Review and a Level-2 Review should be established. The methodology should establish clear criteria for determining “substantial compliance” with the regulations. However, there was not sufficient time to develop this methodology. (*See meeting summary for May 9.*)
- **Permit Revocation:** The Committee felt strongly that an operational definition for a “high burden of proof” needs to be established; this burden of proof would need to be met in order for the VDH to initiate remedial action or a revocation of a permit. The Committee did not have sufficient time to develop a proposal for a “high burden of proof.” (*See meeting summary for June 10.*)
- **Standard Interpretation of Terms:** The Committee identified a number of situations in which varying interpretation and education can affect the final product. While it was agreed that the VDH should work on this issue, there was a sense that the permanent Advisory Committee should take up this issue to identify terms that need clarification and would make recommendations for action.
- **All Priority #4 and #5 Issues: Pages 14 and 15 above.** The Committee did not have sufficient time to address any of these issues, and it recommends that they be taken up by the permanent Advisory Committee.

AD HOC ADVISORY COMMITTEE RECOMMENDATIONS

Note: The issues addressed by the Committee often necessitated discussions about several interconnected issues at the same time. For the purposes of clarity, we have tried to extract the most salient points of the Committee's discussion relating to each of its individual recommendations.

RECOMMENDATIONS CONCERNING QUALITY CONTROL

Note: The following recommendations apply only to individual lots unless otherwise noted.

RECOMMENDATION #1

“Deemed Approved:” As required by law, the new regulations should continue the same timeline for permit approval with Level 1 reviews and “deemed approval” as outlined in GMP 100 and the Emergency Regulations.

The Committee acknowledged that the legislative mandate for the AOSE program is to reduce the permit backlogs and to privatize all or part of the on-site permit applications process. During its discussion of how this mandate might be implemented, the Committee identified several key interests that it felt should not be comprised by the new program. Specifically, the new AOSE program would need to safeguard public health, foster responsible conduct by the private professionals who are implementing the program, provide consulting guidance to the private professionals who are implementing the program, and minimize the need for remedial action or revocation of permits.

While a number of committee members expressed concern about the new system in which permit applications will receive automatic approval, or are “deemed approved” at the end of the 15-day timeframe. However, the Committee was informed that this was a matter of law and could not be changed unless new legislation is passed. Many Committee members expressed particular concern that the system of “deemed approval” should necessitate a higher professional standard for AOSE work to ensure protection of public health. As the VDH may not review every permit application under the new system of “deemed approval,” there will need to be adequate assurance for both the public and the VDH that the AOSEs are qualified to evaluate and design systems on their own. Committee members were equally concerned that “bad actors” be identified in some manner under the new system, so that the integrity and reputation of their profession be sustained through time. Lastly, there was strong sentiment that VDH review of a septic design prior to or at the time of final system inspection, also known as a “Level 2 Review,” was an unacceptable method for quality control in that it could lead to the need for costly last-minute remedial action.

The Committee addressed these concerns through careful consideration of what qualifications should be required of AOSEs, as well as various aspects of the permitting process described below.

Discussion about “Standards of Review”

A VDH representative explained there are generally four scenarios where onsite soil evaluation work would need to be reviewed.

- The Department reviews work conducted by its in-house Environmental Health Specialists (EHSs) to improve in-house quality assurance or when reviewing previously permitted sites.
- The VDH reviews a site when a request for compensation is made under the indemnification fund, which occurs when a homeowner’s septic system has failed due to VDH negligence.
- The VDH reviews an AOSE candidate in field tests.
- The VDH reviews AOSE/Professional Engineer (PE) work for quality assurance, using a 10% Level 2 field check model.

The Committee addressed the question, to what standards should work be held? Several members noted that *substantial compliance*, which is contained in the regulations, creates difficulties of interpretation and should be changed or improved for a variety of reasons. One member noted that some organizations are working on the creation of more precise standards, such as the American Society for Testing and Materials (ASTM), and that Virginia may want to look carefully at these standards. Another noted that as technology changes, the quality of work is also changing and that people can be held to higher standards. Another noted that the standards set by AOSE certification already exceed the state standards anyway.

The Committee discussed at length various ways in which substantial compliance could be changed or improved. Numerous ideas for different methods and criteria for decision-making were raised. Ultimately, the Committee agreed that a specific methodology is needed to ensure some degree of consistency throughout the state; perhaps a checklist of items could be developed for use during a review. One possibility was also raised that a methodology could establish different allowable levels of compliance for different components of the design and installation. Or, as another option, a range of characteristics could be established that would need to be met by each system.

As the Committee did not complete this discussion, the issue of a specific review methodology that could be used throughout the state to determine “substantial compliance” should be taken up by the VDH in conjunction with the permanent Advisory Committee.

RECOMMENDATION #2

Final inspections: *The new regulations should establish that, when a permit is issued on the basis of an AOSE/ PE design and evaluation, then the AOSE/PE is responsible for the final inspection of that system. If the AOSE is unable to inspect the system, the VDH will do so for a fee; otherwise the VDH will not inspect those systems. The VDH will conduct final inspections for all other systems.*

RECOMMENDATION #3

VDH Professional Courtesy Reviews: *The new regulations should make limited numbers of "professional courtesy" VDH field reviews available for AOSE/PEs. When such review is requested, the application will not be subject to counting for backlog calculation and there will not be any time limits for these reviews. A standard for "reasonableness" will apply to both the time in which courtesy field reviews are conducted and the frequency of requests by any individual.*

Discussion for Recommendations #2 and #3

The issue of who should be responsible for final inspection of the on-site septic systems was quite complex. Traditionally, the VDH has been responsible for final inspection of all systems. The Committee considered a number of alternatives for how inspections might occur under the new program and explored the consequences of each.

If the VDH were to conduct the final inspection under the new system, for example, would it simply inspect for proper installation of the approved design? Or would it also inspect for the appropriateness of the site, which could fulfill the VDH's need to conduct "Level 2 Reviews" for quality assurance? The VDH members felt that this scenario would most likely result in inspection for both installation and appropriateness of the site. The reason for this is that the VDH cannot ethically turn a blind eye to a design that it believes will compromise public health; so, while an inspector might not plan to conduct a "Level 2" review on a particular site, in practicality the inspector must take action if he or she sees a site problem.

Committee members felt that this scenario of final inspections which might include "Level 2 Reviews" was unsatisfactory, as it would open the door to costly last-minute remedial action. If a system design is inadequate or a site is inappropriate, it needs to be caught much earlier in the process and, if at all possible, before any construction or installation of the system has begun. It was unacceptable to most Committee members that homeowners should suffer the additional costs and delays that would be caused by any changes required after a system has already been installed. Much preferred would be a method for catching any design or site problems earlier.

The Committee explored a number of alternatives. Members noted that system design is not likely to be an issue for 90 percent of the systems, or those which use "traditional" septic systems. System design is most likely to be an issue for sites with poor or special soil conditions that require alternative system designs. In these cases, because there is not always agreement on the suitability of particular alternative systems, Committee members felt that AOsEs should have a way of obtaining VDH input early-on, prior to installation of the system. If an AOsE

could request VDH consultation on the sites with difficult soil conditions, where several designs might be possible, the AOSEs would have full confidence in their ability to pass a “Level 2” review at any time. The concept of an early VDH consultation, or a “professional courtesy review,” was acceptable to the VDH, particularly as it would help achieve one of the Committee’s goals of minimizing the need for costly last-minute remedial action. Lastly, Committee members felt this was a desirable idea as it would foster better relationships and communication between AOSEs and the VDH. Because of the agreement reached about allowing early professional courtesy reviews, the Committee agreed that “Level 2” reviews could be conducted at any time desired by the local Health Department; there was not agreement, however, that this was a desirable or preferred outcome.

Once the concept of an early professional courtesy review with the VDH was accepted, the Committee discussed whether the VDH should continue to be responsible for final inspections. The VDH members felt that their concerns about quality assurance could be addressed by creating a high professional standard for AOSEs. This, coupled with the legislative mandate to privatize the septic permitting process, led the Committee to discuss whether AOSEs should assume responsibility for a septic system from start to finish, i.e. through final inspection.

Concern was expressed that since the VDH is charged with protecting public health, it should be involved in the final inspection. There could be an inherent problem with using the private sector to oversee public health because its interests are economic as opposed to the VDH’s mission. It was noted, however, that this issue might be resolved if AOSEs are responsible for the system from start to finish, including the final inspection. Some felt that the mission of protecting public health is the same for both the private and public sectors, and only the tools have changed since the VDH now has the ability to train AOSEs.

Another concern was whether citizens would feel penalized if they chose to use AOSEs, as this would mean that they would not benefit from a VDH inspection. It was noted that the entire AOSE process is optional for landowners; if they wish to obtain a VDH inspection then they must choose the “bare application” route in which the VDH designs and inspects the system. However, homeowners must choose one system or the other.

The legality of the VDH’s non-performance of the final inspection also was questioned. In response, it was stated that the Virginia code does not mandate a final review. In addition, there is precedence for a state agency to approve a permit without a final inspection, set by the DEQ’s approval of petroleum tank installations.

Committee members identified possible benefits for the model of AOSEs conducting final inspections on their own systems. First, if AOSEs are to be held to a higher professional standard, it makes sense that they should be held responsible for whether their system actually works. A benefit of this could be AOSEs would be able to learn from each site design as they would see it installed, which currently does not necessarily happen, and would be able to learn how the design could be improved. Members felt this could lead to a positive learning cycle which would, over time, raise the professional standards even higher. A second benefit identified is that the program would be privatized significantly, and VDH personnel would be freed up to provide early consultation and to conduct Level 1 and Level 2 reviews.

While this option offered many positives, and was ultimately accepted by consensus by the Committee, some concern was expressed about the additional burden that final inspections might place on AOSEs in rural areas where there is a low number of practicing AOSEs. It was felt that AOSE's in rural areas would have to travel great distances to provide final inspection, and that this would not be economically feasible under the current fee structure. Several outcomes were predicted. Rural AOSEs might shrink their service area, which could also mean that they might not be able to stay in business. Or rural AOSEs might decide to charge high fees for final inspection, to cover their time in travel, which might mean that homeowners would not opt to use the AOSE track at all and instead would use the VDH "bare application" track.

This anticipated problem for rural AOSEs was acknowledged and a number of possible solutions were proposed. Perhaps a geographical region could be defined in which rural AOSEs could defer final inspections to the VDH. This region might be defined based on the number of AOSEs per unit population. This system would be considered transitional, and could be in effect until the number of AOSEs in a rural area rises above a set level, at which time it would be assumed that AOSEs would be able to conduct their own final inspections. A major concern with this idea was that this would set up a two-tier system in the state, where some AOSEs are expected to conduct final inspections under the law and others in transitional rural areas are not. The VDH members of the Committee felt this was problematic legally, and could be viewed by some AOSEs as discriminatory. Also, there was some concern that this solution would provide less assurance that the system was installed according to the AOSEs plans.

Another idea was to allow rural AOSEs the right to waive his/her right to conduct the final inspection. Most Committee members agreed that this would not accomplish the desired goal. Some wondered whether this would cause the same backlog problem for the VDH that the legislation was intended to fix. However, others noted that there could still be an advantage for the homeowner to choose the AOSE final inspection route in that a final inspection by the VDH always allowed for the possibility that the system might be rejected, thereby leading to undesired costly delays.

The Committee agreed that, in the absence of workable solutions, there remained two possible choices for the consumer: 1) file a "bare application" with the VDH with final inspection performed by the VDH, and 2) use an AOSE to file an application with final inspection performed by the AOSE. There was general agreement that all landowners, particularly in rural areas where AOSEs might need to charge higher rates for final inspection, should be informed at the beginning of the application process about the advantages and disadvantages of both the AOSE and VDH "bare application" routes.

Ultimately, to address the conundrum for rural AOSEs, the Committee decided that if the AOSE is unable to conduct the final inspection, the VDH may be allowed to inspect those systems for a fee that would cover its costs of inspection. While this was not considered a totally satisfactory solution, the Committee felt that it would at least alleviate some of the rural AOSEs concerns.

The Committee recognized that more work needs to be done to define the conditions under which an AOSE is “unable” to inspect a system. Members were concerned that the language of their recommendation could be used as a loophole for AOSEs anywhere in the state who were able but simply unwilling to conduct final inspections. The Committee was clear that its recommendation was intended to apply to the special conditions that might be encountered in rural situations. Conditions cited were situations where an AOSE in Southwest might have to travel seven hours round trip simply to inspect one system. Not only might this be logistically impossible, but the fee to cover the AOSEs costs could be prohibitive to the homeowner.

The Committee urged the VDH to continue considering ways of addressing this problem through the future.

RECOMMENDATION #4

VDH Professional Courtesy Reviews-Subdivisions: *With regard to subdivisions, the new regulations should not prohibit professional courtesy early consultation, similar to a preliminary engineering conference, after the “base map” for the subdivision is developed but prior to submission of the subdivision package.*

The Committee agreed that problems often arise in subdivision approvals because information is not obtained through early consultation with the VDH about the local soils and history of approvals. Members felt that the VDH should be allowed to continue its practice of providing early consultation for subdivisions, because it is a cost-effective way to serve the interests of the community, local government, and citizens. It was stressed that local governments are depending on the VDH to serve as a source of local knowledge, for which they have paid, and that this role is critical as the consultant and developer may not be from the local area.

Questions were raised about what kind of information the VDH would provide during this early consultation. Concern was raised that the VDH not slip into the role of being a consultant to the developer. Members agreed that the goal was not to have VDH look at individual lots or the number of lots, but to provide information on the nature of the site, any concerns about the soils, and local knowledge and history about soils and permit approvals for similar conditions.

Concern was also raised about having the new regulations stipulate when and how early consultations may occur. This might unnecessarily restrict opportunities for other forms of valuable communication between the VDH and developers. As a result, the Committee agreed that the early consultation conference should not be specified in the new regulations, but also agreed that the new regulations should not prohibit these consultation conferences.

RECOMMENDATION #5

AOSE Appeal: *The new regulations should provide that, whenever the VDH performs a field check (Level 2 review) the AOSE should receive a copy of the Level 2 review. If the VDH intends to revoke a permit approval, the AOSE shall be able to challenge the factual basis for the VDH revocation.*

The Committee agreed that it was important for AOSEs to receive a copy of every Level 2 review performed, as this was an important form of feedback. AOSEs should know what was inspected and what, if any, problems were found. This knowledge would enable AOSEs to improve their designs.

If a Level 2 Review leads to the decision to revoke a permit approval, under the current system only the homeowner has the right to appeal. Committee members felt strongly that the AOSE should also have the right to challenge the factual basis for the revocation and that this should not fall solely on the homeowner. Some envisaged that, under this scenario, the homeowner might be able to take occupancy of the house until the issue was resolved, to minimize the cost of delay. Others expressed concern about this idea and noted that lending institutions might not be willing to “close” on the house if the VDH is revoking the permit on the septic system.

After this recommendation was developed a VDH member reported that, according to the VDH legal counsel, AOSEs do not have legal standing with regard to the revocation of a permit. The homeowner is technically and legally the owner of the permit, and therefore the AOSE would not have standing to challenge the factual basis of the revocation. This led to significant discussion of the options available to the AOSE. If a permit was revoked, and the VDH subsequently initiated action against the AOSE, would the AOSE then have the right to appeal? A VDH member felt that this would not be possible, as this would mean that the “facts would be tried twice” by the same institution.

Additionally, a discrepancy exists in this situation between the private and public sectors. If the on-site specialist was a CPSS (Certified Professional Soil Specialist), then there is the possibility that an appeal would be reviewed by the CPSS Board. If, however, the on-site specialist was an AOSE but not a CPSS, the appeal would be handled by VDH. Therefore, the disparity is caused by two different groups potentially making judgement on the same data.

While recognizing the difficulty that an appeal would cause the VDH, most Committee members felt that the AOSE needed to have some right of appeal at some step in the process. It would not be fair to take action against an AOSE without giving the person the right to defend himself by challenging the facts of the case.

The VDH members agreed that the VDH would need to develop some mechanism for enabling an AOSE appeal. Perhaps a “tiered” appeals process could be developed, whereby the homeowner has the first recourse and, if the decision is against the homeowner then the next appeal tier would be open to the AOSE. Using this model, a final decision would not be issued until all tiers of the appeal system were exhausted.

Ultimately, the Committee agreed to maintain the original language in its recommendation, but recognized that legal constraints may lead to different regulatory language or implementation. The Committee felt that it wanted to send this message forward, and hoped that the VDH would be able to find a way to implement the intent of the recommendation.

RECOMMENDATION #6

Burden of Proof for Permit Revocations: *The new regulations should stipulate that there will be a high-level test for revocations of permits. Simple disagreement or interpretation of soil conditions is not sufficient to revoke a permit. The proposal for a high burden of proof should be developed by further meetings of the Ad Hoc Committee or of the permanent Advisory Committee.*

There was significant discussion about what criteria should be used by the VDH to determine whether a permit needs to be revoked. The Committee generally agreed that the VDH should approach a Level 2 review with an “innocent until proven guilty” approach, in that the approved system design should be assumed to be correct until some high burden of proof indicates otherwise.

A subcommittee was established to develop a proposal for what would constitute a “high burden of proof.” This subcommittee never submitted a proposal for consideration by the Committee. The Committee felt strongly that this issue needs to be addressed as quickly as possible in the near future, by either additional meetings of the Ad Hoc Committee or the permanent Advisory Committee.

RECOMMENDATION #7

Responsibility for Operation and Maintenance of On-Site Wastewater Treatment Systems: *The Committee recognizes that education of property owners with on-site wastewater treatment systems about proper operation and professional maintenance, particularly in the case of engineered systems, is a critical issue for the protection of both public health and ground water quality. The Committee urges the VDH to address this issue, particularly to establish standard mechanisms for how operational knowledge about on-site systems can be communicated to new owners or occupants. The VDH should continue its role of protecting public health and being the “first responder” by working with problems encountered with all existing onsite systems. But it also should seek to improve property owners’ understanding that they bear responsibility for proper operation and maintenance of their on-site systems.*

Ideas and options that the VDH may wish to consider to achieve these objectives are:

- *The homeowner could be provided with an operational manual by the AOSE and VDH at the time of system approval.*
- *A schedule of mandated inspections would be administered.*
- *Disclosure of information about the system to the new homeowner at time of purchase.*
- *Public education campaign by VDH.*
- *AOSE/PEs would be required to warrant their work for 1 year.*
- *Real estate firms and lending institutions should require system check and/or maintenance when property changes hands.*
- *Require a notice of need for maintenance contract on systems.*

The issue was raised about who has responsibility for educating the homeowner about proper use of the installed septic system. The Committee agreed that many homeowners are unaware of operational guidelines for their systems and may not be aware of system problems if they develop. Consequently, if a system is not functioning adequately, it may jeopardize public health by potentially contaminating groundwater supplies. There was a lengthy discussion about who should be responsible for educating homeowners and whether AOSEs could be liable for system failure due to improper operation.

Several members felt that this issue is beyond the scope of the regulations being addressed by the Committee. It was noted that, although this is a crucial issue with regard to public health, the VDH is not currently educating the public in this regard. On account of this, in transitioning to an AOSE approval system, it did not seem fair that the AOSEs should be required to do so.

Another concern was expressed that even if homeowners are educated, often this information is not passed on when a house changes hands. In response, the Committee was informed that an advisory group is already looking into this matter.

Committee members agreed that proper operation of septic systems is a major issue, and is probably the weakest link in the system. Too many homeowners have no idea what kind of septic system they have, what restrictions to operation may apply, and what maintenance is needed. The Committee agreed that currently there is no system that does not need maintenance, yet there is no effective method for educating owners of systems.

The Committee agreed to note the importance of the issue and developed the above recommendations for conveyance to the VDH group already dealing with this issue.

RECOMMENDATIONS CONCERNING PROFESSIONAL STANDARDS

Minimum Requirements for the AOSE

RECOMMENDATION #8 General Principles

- *The AOSE written and field tests must be taken and passed by all those who are currently an AOSE under the emergency regulations and by all those who wish to become an AOSE in the future (excluding those who already have taken the AOSE test dated January 2000 or thereafter).*
- *These tests would have to be passed by a stipulated time (to be determined by the VDH).*
- *In the interim transition period, AOsEs may have the option of submitting a septic system application for a Level 2 Review, which can serve as the field test component of the AOSE test.*
- *On the written and field tests, questions should relate only to the regulations and the application of those regulations. Test questions should not cover areas of personal philosophy or areas of pure soil science or pure engineering.*
- *Qualified AOsEs under the temporary regulations should be allowed to perform AOSE work at least until July 1, 2002, following the same requirements as for CPSSs under the emergency regulations.*

Specific Additional Requirements

- *CPSS: To become an AOSE, all persons who are CPSSs must pass the AOSE written and field tests.*
- *Non-CPSS: To become an AOSE, a person who is not a CPSS and who has a related four-year degree such as science or engineering, must have at least four years of full-time field experience, must pass approved AOSE training, and must pass the AOSE written and field tests.*
- *A person who is not a CPSS and who has a college degree not related to AOSE work, or who has a two-year college degree, must have at least six years of full-time field experience, pass approved AOSE training, receive a sign-off from either a supervisor or an AOSE which states that the person is sufficiently experienced to become an AOSE, and must pass the written and field AOSE tests.*
- *A person who is not a CPSS and who has no degree, must have at least eight years of full-time field experience, pass approved AOSE training, receive a sign-off from either a supervisor or an AOSE which states that the person is sufficiently experienced to become an AOSE, and pass the written and field AOSE tests.*
- *AOSE: Any person who has passed the AOSE tests dated January 2000 or later, will be considered an AOSE under the permanent regulations. Persons who have been operating as AOsEs under the emergency regulations, but who have not yet passed the AOSE written and field tests, must pass the AOSE tests by (a date as yet to determined) in order to continue submitting applications as an AOSE.*

- ***EHS: To become an AOSE, all persons who are Environmental Health Specialists employed by the Virginia Department of Health must meet one of the above requirements.***

Currently, under the emergency regulations, persons wishing to qualify as an AOSE must meet one of the following requirements:

- A CPSS with 2 years of experience in last 5 years; or
- 5 years of experience plus the written and field AOSE test; or
- 2 years experience plus VDH training and the written and field AOSE test; or
- VDH employee with current training and the written and field AOSE test.

There was general agreement that the current requirements are not stringent enough and that the “bar” needs to be raised. The Committee spent significant time discussing the professional standards that persons desiring to be AOSEs should be required to meet.

Considerable importance was attached to these standards for several reasons. First, because many if not most AOSE applications will receive automatic approval through the “deemed approved” mechanism, there needs to be adequate assurance for both the public and the VDH that the AOSEs are qualified to evaluate and design systems on their own. Another concern was that the new system would need to be able to identify “bad actors” in some manner, so that the integrity and reputation of the AOSE profession be sustained through time.

On the other hand, members also expressed concern that the certification requirements should not be overly burdensome for those with years of experience and should not create barriers to new people entering the field. The Committee worked hard to find ways in which experience could be recognized, while still allowing for some method of quality assurance.

Additional goals for these standards were that they establish a fair way of leveling the playing field and reduce the liability of AOSEs.

Numerous alternatives were considered, such as “grandfathering” those with adequate experience and dividing the test into two separate sections for soils and engineering. The Committee ultimately reached consensus on the standards outlined above.

The Committee was not able to reach consensus on the time frame within which these standards should become active. Some Committee members felt these standards should become active no earlier than July 2004, because of concerns that sufficient training would not be available in a shorter time frame to enable those desiring to become AOSEs to do so. Other members felt that the standards should become active no later than July 2002, as they felt that another four years was too long a period for people to perform AOSE work without being tested. These members felt that sufficient training would be available, and that this also might provide an opportunity for private sector training to be developed. Ultimately, the Committee reached impasse on this issue, realizing that in the absence of a consensus recommendation the final decision would be made by the VDH.

A few members expressed concern that existing AOSEs, under the emergency regulations, should not have to take the field test. These members felt that current AOSEs, by working in the filed and submitting applications during these interim years, are currently demonstrating their ability to meet the standards of the field test. Additional concern was expressed that administering the field test would require a huge commitment of VDH resources. One member also noted that the administration of the field test is not uniform and varies according to the testing officer and to the kind of site selected for the test; the test could turn out to be very simple or, alternatively, very difficult.

Others felt strongly that it was important for all AOSEs to pass both the written and field tests. These members felt this measure was necessary to level the playing field and to apply the same requirements to all. Perhaps most importantly, the field test was an important tool for eliminating bad actors; while some people might possess the needed book knowledge, they might not be able to apply that knowledge in the field. It is important to identify these people, just as it might be important to identify those who don't possess the needed book knowledge. Further, the field test is the critical part of the test that provides homeowners assurance of the AOSEs capability.

The Committee reached consensus that, during the interim transition period, persons operating as AOSEs should have the option of submitting a septic system application for a Level 2 Review; this Level 2 Review would serve as the field test component of the AOSE test.

Ability of PEs to Submit Applications

In a related discussion, the Committee explored how the current regulations pertain to Professional Engineers (PEs). The emergency regulations do not include PE's in the submission process for septic system approval by the health department within the "deemed approved track." The regulations state that PEs can only make submissions "in consultation with" AOSEs. Concern was expressed that because PEs may not submit applications on their own, they are not treated fairly according to the regulations.

A suggestion was made that PEs with sufficient experience in the field be "grandfathered" as AOSEs in the permanent regulations. The VDH acknowledged that the intent of the emergency regulations was not to allow PEs blanket approval for design submissions, but to require them to consult with AOSEs. One VDH member noted that this may have been an example of a problem created by the emergency regulations that needs to be resolved. While the requirements for PE applications have not changed over time, the perspective about PE work has changed, and this should be reflected in the new regulations. However, no specific recommendations were developed with respect to PEs, as it was felt that the recommendations above would enable PEs to become AOSEs in the same manner as others.

RECOMMENDATION #9

Training: The new regulations should reflect the goal of creating regional training, but should allow for flexibility, (e.g., "AOSE training will be held in a manner similar to current

VDH training”). The regulations should be accompanied by policy recommendations to have training in different regions of the state.

The Committee strongly recommends that monies be allocated from the Onsite Indemnification Fund to provide training for AOSE/PEs

As noted above, significant concern was expressed about the availability of AOSE training to enable all those eligible to be AOSEs to obtain certification within the desired timeframe. A concern was repeatedly voiced that the basic training should be available on a regional or local level to make it more accessible. Another concern was that the VDH has traditionally set a training schedule based on its internal needs; now it should also factor in the projected attendance by private AOSEs.

Some members felt it would be important for the new regulations to indicate the need for VDH to provide training in the regions, not just in Richmond. Others expressed concern that training should not be stipulated in regulations, but would be more appropriate in policy to allow for flexibility. The Committee ultimately agreed on the language proposed, that the regulations should reflect the *intent* of creating regional training.

In a later discussion, it became apparent that there may be differing expectations concerning the VDH role in providing training for the new AOSE program. Some members felt that the VDH is not obligated to provide all needed training, but is able to offer some training as well as guidance and approval of private sector training. Other members felt that the VDH should go farther and take the lead role for developing training during the interim time, until permanent regulations are in place, as the private sector is not likely to step into the void

Overall, the Committee agreed that, if the AOSE program is to be successful, the VDH will need more resources to offer sufficient training throughout the state. The Committee reached consensus on the above proposals.

Access to Information

RECOMMENDATION #10

Requests for Information: *The new regulations should specify that AOSEs need to provide clear and specific information (tax #, parcel #, etc.) when requesting records from VDH. The VDH should develop a standardized format for requests for information and a standardized format for VDH responses. Features should be shown as per 12 VAC 5-610-460. However, the new regulations should allow sufficient flexibility to enable current systems that work well to continue.*

RECOMMENDATION #11

Information Technology: *The VDH should make information available on the web, with a GIS interface, to enable free and easy access for everyone.*

RECOMMENDATION #12

AOSE Liability: *The new regulations should indicate that AOSEs must make a “good faith” effort to get accurate information, and that their signature certifies that all information submitted is true and correct to the best of the AOSE’s knowledge. The regulations should state that AOSEs will not be held liable for inaccurate or incomplete information provided to them.*

RECOMMENDATION #13

VDH Assistance: *The VDH should emphasize and define the role of clerks in providing information and ensuring that records are kept organized. The VDH should establish guidelines for a uniform filing system throughout the state. The VDH should send AOSEs a copy of permit approvals. There should be no charge for retrieval of records for AOSEs, where possible.*

RECOMMENDATION #14

Timeframes: *The VDH should establish specific timeframes for VDH provision of information to AOSEs.*

Discussion for Recommendations #9 -#14

The Committee discussed at length the issue of AOSE access to information and records held by the VDH. Members identified that they wished to address issues of timeliness, cost for access to records, the system which requires AOSEs to use a clerk, accuracy of information provided, liability if information provided is inaccurate, mechanisms for information access such as fax, and compliance with the Freedom of Information Act (FOIA). The Committee developed the above recommendations to address these concerns.

With regard to VDH clerks, there was a feeling among members that VDH clerks need to be more involved in the process of providing information and ensuring that records are kept organized. Some members felt that every county should have a full-time VDH clerk. Others noted that this may not be financially possible. Generally, it was agreed that the VDH would work on clarifying the role of clerks and establishing guidelines for a uniform filing system. As part of this effort, it is important for the VDH to establish clear time frames in which they will provide information; for example, the VDH might stipulate that AOSEs must receive a VDH response within 5 days and full information in 15 days.

Some members felt that AOSEs should have priority access to information, over other kinds of requests for information, as this would help reduce permit delays. However, priority access was considered too difficult to define and implement.

Some members felt strongly that the public and private AOSEs should be treated equally. For these members, this meant that there should be no charge to private AOSEs for retrieval of records. It was noted, however, that some counties rely on such charges and may resent being told that they cannot charge for records. The Committee agreed on language that recommends that AOSEs not be charged for records, where possible.

The issue of AOSE liability was a major concern for some members. If AOSEs are provided with inaccurate information by the VDH, they should be exempt from liability. It was noted, however, that AOSEs must make a “good faith” effort to get all the pertinent information. This could be addressed by a certification statement that all information is true and correct to the best of the AOSEs knowledge. However, another member noted that insurance companies may not permit the exemption of liability for AOSEs. Others noted that landowners must also be expected to provide accurate information. Overall, the Committee agreed that AOSEs should not be held liable for inaccurate or incomplete information that was provided to them, and developed the above recommendation to reflect this.

RECOMMENDATIONS CONCERNING ADMINISTRATIVE ISSUES

Content of Application Forms

RECOMMENDATION #15

Paperwork reduction: *The new regulations should aim as an overall goal to reduce the paperwork required for individual lot applications and subdivision packages. Several recommendations for consideration are that the VDH:*

- 1) eliminate repetition of the name and address at the top of each page of the application package.*
- 2) require three copies of only the primary construction permit and not of the additional data which accompanies it (soil data, etc.).*
- 3) hold denied applications for a defined period of time, so that only the revision or update would need to be resubmitted in lieu of the entire package; and*
- 4) for subdivision packages, condense the design form and summary sheet into a one-page table format.*

The permanent regulations should not contain specific requirements for submittal packages and, instead, should contain a general statement that the packages must be complete as determined by the Division. The VDH will, by the effective date of the regulations, develop the package requirements with the Ad Hoc Advisory Committee and publish a new GMP.

One member, who noted that the paperwork required is governed only by GMP #100, wondered if this guidance would be sufficient for the new system. Is there a need for additional guidance or specifications on paperwork to ensure consistency throughout the state? An example was given of the different requirements among jurisdictions for documentation of the trenches.

An example of standardized submission requirements was presented to the Committee for its review and comment, but this proposal was never discussed by the Committee.

Related to this, a concern was raised that the field work review provides no allowance for “substantial compliance.” A number of members expressed concern that the paperwork appears to demand 100% compliance, rather than substantial compliance which is all that is currently

required by the regulations. Many agreed that there is inconsistency in how the regulations are interpreted and enforced. For example, an AOSE may receive approval letters in one county and phone calls in another. This situation should be addressed in the new regulations. The Committee agreed that these issues were important, but should be discussed later in its work.

The Committee also addressed the discrepancies between application packages filed by public and private AOSEs. Most members agreed that the application requirements for private sector AOSEs were more stringent than those for the public sector, specifically with regard to the paperwork that must be submitted. Two suggestions were made to remedy this situation. The first was to require that the VDH AOSEs should fulfill the same requirements as the private sector. The second suggestion was that the VDH should aim to "meet in the middle" with regard to the different requirements of the two sectors; that is, it would lessen some of the requirements on private sector AOSEs and increase the requirements for public sector AOSEs.

In addition to the difference in fees, the Committee identified the following examples of paperwork that is required of private but not of public sector AOSEs.

- Pump Calculations
- Pump Curve
- Topographic Features
- Abbreviated Design Form
- Permit Sanitary Survey
- Utility Lines Noted On Sketch
- Minimum Setback Distances
- Statement On The Permit About The Regulations

Many members felt that the higher standards for private sector AOSEs were justified for the following reasons, and felt that the VDH AOSEs should be required to meet those same standards.

- At present, anyone can install a septic system. As a result, all AOSEs should be required to provide adequate information in the documentation until such time that only certified contractors can install systems.
- The VDH should follow the guidelines set by GMP 100, which stipulate what paperwork is necessary, and which are currently being followed by the private sector AOSEs.
- In the future, all work will be done only by AOSEs, whether public or private, and so standards for all AOSEs should be the same.
- There should be a higher standard of information provided, generally, to reflect a higher level of professionalism and to protect public health and community groundwater. This issue is particularly important when it pertains to having the drainfield sited on a survey plat.

Other members felt that the higher standards for private sector AOSEs were not justified, for the following reasons.

- The VDH has little experience in some areas in which the private sector AOSEs

do have experience, such as mineralogy and shrink/swell soils. More training will be required if public sector AOSEs are to required to fill out information on such matters.

- A higher standard creates superfluous paperwork; perhaps the unnecessary paperwork for all AOSEs should be identified and eliminated.
- The work of private AOSEs is not supervised, and therefore a greater degree of paperwork is needed. In contrast, supervisors of public AOSEs are able to identify when a particular AOSE needs to do more or less paperwork.

The Committee generally agreed that that it would be desirable to achieve a *common “middle ground” with a high standard* that could apply to both sectors.

Standard Interpretation of Terms

RECOMMENDATION #16

Education: *The new regulations should emphasize the need to encourage and promote standard interpretation of terms throughout the state. The VDH should identify terms and situations that are susceptible to varying interpretation and develop standard interpretations that are included in AOSE training, the AOSE written and field tests, and AOSE continuing education courses.*

The Committee discussed the issue of encouraging or promoting standard interpretation of terms throughout the state. One VDH representative noted that the variations in the design process result from two main factors: interpretation and education. Interpretive differences can occur in the field when one is identifying features such as drainages and swales. Education plays a role in situations where different people use different methods for determining standard measurements.

Due to these inefficiencies, the need for education was stressed by a number of Committee members. It was pointed out that standard methods could be found on the internet and that the AOSE test should be based on these standards.

The Committee identified the following situations in which degrees of varying interpretation and education can affect the final product. This list is seen as exemplary and not a definitive list of all such situations.

- identifying drainageways
- measurement techniques
- minimum installation depth
- center to center spacing
- downslope siting of wells from contamination sources (conversely upslope siting of drainfields)

- interpolating slope
- determining sinkholes
- depth of lateral groundwater movement interceptor (LGMI)

Concern was expressed that the identification of these inefficiencies is tangential to the goal of the Committee. Members generally agreed that a permanent Advisory Committee should notify the VDH of the terms that need clarification and possibly even make recommendations for action. The VDH should then attempt to increase understanding by education and incorporation of these issues into the AOSE test.

Consistent Application Process Throughout the State

RECOMMENDATION #17

Encouraging County “Opt-In:” *The new regulations should encourage and enable localities to “opt in” to the state permit approval process, which streamlines the process by incorporating both state and local requirements into one review.*

RECOMMENDATION #18

Education: *The VDH should develop an aggressive education and outreach program to localities, particularly those with local ordinances governing septic design and location. The goal of this program should be to inform localities about the new AOSE program, how the approval process will interface with enforcement of any local ordinances, and the advantages of “opting in” to the VDH approval process.*

RECOMMENDATION #19

Information for AOSEs: *The VDH should make available to all AOSEs a list of counties with local ordinances governing septic design and placement, and a list of those counties that have “opted in.”*

Discussion of Recommendations #17 - #19

In the Emergency Regulations, local governments have the option to “opt in” to the state approval process, which streamlines the process by incorporating both state and local requirements into one approval process. If a local government does not “opt in,” it may require a representative from the local health department to inspect the site to ensure that the design meets local ordinance requirements. In this scenario, an AOSE could submit an application for a site which would be “deemed approved” in 15 days, however, the site would still have to be inspected by the local health department to meet County requirements. This scenario is inefficient and would defeat the purposes of the new program. Some members explained that because local health departments are funded in part by counties, their action may be dictated by the local government.

In the event that a county “opts in,” the local health department would conduct a Level One review of all applications in the same manner as other areas, except that it would be

“deemed approved” in 15 days to meet both state and county standards. For Level Two Reviews, the VDH again would ensure that the site complied with both VDH and local regulations. If the county “opts out,” and the application meets the VDH standards but not local ones, then the local health department would issue a permit that would explicitly indicate this fact. The application would then need to be sent to a local authority for approval, and that local authority in most cases would be the local health department. This system is clearly not desirable.

Many Committee members agreed that there must be a concerted effort to educate counties on the new approval system so that they will “opt in” to the process. It was noted that some counties would “opt out” specifically to slow down the permitting process, using this as a tool to slow growth.

The Committee next discussed how to draft the permanent regulations to best encourage counties to “opt in.” Two ideas were presented here: (1) local governments could automatically be considered “opting in” unless VDH receives notification of intent otherwise; and (2) the same language as the emergency regulations could be kept, which gives local governments the option of “opting in.” An advantage of an automatic “opt in” is that it could possibly get more counties to “opt in.” Disadvantages, however, are that it could confuse those counties that have already “opted in” and could cause hard feelings towards the VDH because of a perception of another “state mandate.”

Ultimately, the Committee agreed on the above language, although some members felt that a better option should still be sought.

RECOMMENDATIONS CONCERNING WELLS

RECOMMENDATION #20

Certification and Inspection: *The AOSE/PE should be given authority to certify the well site/area pursuant to 12 VAC 5-610-630. The Committee further recommends that the new regulations specify that AOSE/PEs must inspect well and septic permits but that inspection of well-only permits be optional.*

RECOMMENDATION #21

Training: *The VDH should open its well regulations training module to AOSE/PEs on an optional basis, and these should be offered on a regional basis. Also, the “Basic Training” for EHSs/AOSEs should include an introduction to wells sufficient to enable the AOSE to site a well.*

Discussion of Recommendations #20-21

The Committee discussed the fact that the location or sites of wells are most often determined at the same time as the drainfield. After a brief discussion, the Committee agreed that both the well siting and the drainfield siting should be done together and therefore the AOSEs should be authorized to site wells in the field.

The Committee next discussed whether the AOSE should be required to send in an application for a well permit along with the on-site submittal package. It was noted that since this is not currently a requirement for the EHSs, a double standard would be created if the VDH made it a requirement for AOSEs. There was general agreement that *not* requiring a well site at time of submittal is a potential loophole in the approval process, however it is not such a pressing issue as to require regulatory measures at this time.

With regard to training for siting wells, concern was expressed that the AOSE training does not cover this topic sufficiently. The Committee discussed several alternatives, such as including the topic as a part of the AOSE training or opening the VDH training module on wells to AOSE/PEs on an optional basis. The Committee agreed on the latter option, and underscored the need for this training to be offered on a regional level.

The Committee discussed whether AOSEs should be required to perform inspections on those well sites for which they have submitted packages. Some members thought that the AOSE should not be required to inspect well-only permits, as these could be done by the VDH. The Committee agreed that consistency in the regulations is an important consideration. The Committee agreed to the proposal that AOSE/PE should inspect all of their combination well and septic systems but should be given the option of inspecting well-only permits.

RECOMMENDATIONS CONCERNING A PERMANENT ADVISORY COMMITTEE

RECOMMENDATION #22

The new regulations should establish a permanent AOSE Advisory Committee, with the following membership.

11 to 14 Members	PERMANENT AOSE ADVISORY COMMITTEE Membership
4	AOSE from different parts of the state, and one or more must be members of the Virginia Association of Professional Soil Scientists (VAPSS)
4	VDH field employees who are AOSEs
2	Contractors (system installers)
1	PE
3	<p>Discretionary voting positions, who are selected by the Committee for appointment by the Governor, for up to one year, and renewable thereafter. These positions are intended to provide substantive expertise and may be drawn from the following categories, but are not limited to these.</p> <ul style="list-style-type: none"> ● Builders/ Developers ● Well Drillers ● Local Governments ● Lending Institutions ● Surveyors

Note: An effort also must be made to ensure that at least some of the Advisory Committee members are homeowners with experience with onsite septic systems, so that the homeowners' interests may be represented on the Committee.

The Committee agreed to recommend the creation of a permanent regulatory Advisory Committee, which would meet to make recommendations for amending the AOSE Regulations. This Committee is needed for a number of purposes: to reach closure on the remaining issues not yet discussed, to address issues as they arise with the AOSE program, and to discuss any issues relating to implementation of the AOSE program.

After being informed about an existing Advisory Committee for the Sewage Handling and Disposal Regulations, one member wondered whether this Advisory Committee could simply be expanded to meet the needs of the AOSE program. This idea was rejected, as there was concern that the existing Advisory Committee would not understand some of the problems that occur in the field. The new Advisory Committee should be composed of people who work in the field, with representation from the different regions of the state, and who have a good understanding of the issues in their region. Also, AOSEs should be well represented on the new Advisory Committee. The Committee agreed on the above membership for the proposed Advisory Committee. Other important stakeholders could be invited on an "as needed" basis but would not have voting privileges.

AD HOC ADVISORY COMMITTEE MEETING SUMMARIES

Copies of the Ad Hoc Committee Meetings Summaries may be obtained from the Virginia Department of Health. Please contact:

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