

Large On-Site Sewage System
Rule Committee Meeting Summary
July 30, 2008
9:30am – 3:30pm

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Action and Follow-Up Items

Future Meetings:

August 6, 2008: Technical Review Subcommittee (TRS), Tumwater DOH

- Performance monitoring

August 28, 2008: Full LRAC Cancelled

- **Instead: Operating Permit Subcommittee**, Tumwater, DOH

***September 9, 2008: New Date!**

- Technical Review Subcommittee (TRS), Tumwater DOH

September 30, 2008: New Location!

- Rule Advisory Committee location changed to Ecology Auditorium

Calendar Updates:

- October 28, 2008 – No changes.
- November – No meeting.
- December and January – future LRAC meetings, dates and locations TBA.

Follow-Up:

Future topics:

- Ecology presentation on present potential funding options/financial assistance for LOSS upgrades (John Stormon to arrange)
- **AKART:** Prepare Issue Paper for AKART. Nancy and John Stormon will collaborate.
- Performance Monitoring.
- Consider later: will we allow slope>30% for LOSS?
- Consider again: metering/flow measurement requirements.

For TRS:

- Minimum land area. GMA/urban service concerns.

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- Remote drainfield issue: Calculate land area based on gross acreage; require remote treatment site to be contiguous to property served?
- Topic 7, Vertical Separation

Other:

- Add to AAG Consultation Topics: Ask AAG: How does 2007 LOSS legislation impact existing LOSS?
- On page 5 of the issue paper: does “professional” include on-site designer? Consult DOL and AAG.
- DOH should prepare a safety factor overview: compare the existing reg with decisions made by LRAC for changes.
- Define surface water. See King County result.
- DOH must establish a better high strength waste standard.

Welcome and Introductions

Dave Lenning welcomed LOSS Rule Advisory Committee (LRAC) members, reviewed the agenda with committee members, and asked committee members, DOH staff and audience members to introduce themselves. There were 8 committee members present for the morning and 9 present by late morning constituting a quorum. There were no comments on or additions to the agenda.

Task 1 – Present Recommendations on Technical Issue #5

Nancy Darling presented and led the discussion on Technical Issue #5- Soil and Site Evaluations – Hydrogeology Report Requirements. Committee members received this issue paper at the June LRAC meeting, along with an introduction to the topic. Nancy briefly reviewed the introduction, gave an overview of the AKART and how it could be applied to hydrogeology reports and walked the committee through the Options identified in the issue paper. After discussion, the committee voted that DOH should apply Option C to new LOSS. The committee also requested follow-up in several areas.

LOSS Rule Advisory Committee Discussion and Votes

Technical Issue #5: Soil/Site Evaluation

I. AKART

- A. Definition not in rule
- B. Moving target
- C. May set minimum level of treatment
- D. Clarify: not most expensive or highest level of treatment (“reasonable”)
- E. AKART triggers – after initial design and construction
 - a. System old – needs rebuild
 - b. System expansion
 - c. Water quality problem or new requirement (e.g. Total maximum daily load – TMDL)
 - d. Performance monitoring shows LOSS not meeting expected level of treatment/performance
- F. Key water quality issues
 - a. Primary Concern

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- i. Nitrates
 - ii. Fecal coliform bacteria
 - iii. Phosphorus
 - iv. No drinking water or groundwater standard
 - v. Surface issue
 - vi. Some soils can treat
 - b. Secondary Concern
 - i. Viruses
 - No incentive to treat for viruses
 - Indirect standard – coliform bacteria is the indicator
 - ii. Pharmaceuticals
 - Current discussion; future concern
 - c. No standards set yet
 - i. Arsenic
 - Unusual contaminant for LOSS
 - Not common for residential waste
 - Hobbies
 - Light industrial
 - ii. Hydraulic loading
 - May be limiting factor if water quality is high
- G. Comments:
 - What do we do about AKART with the old LOSS – many of which are presumed to be out of compliance?
 - Ecology agreed to present potential funding options/financial assistance for LOSS upgrades (John Stormon to arrange)
 - Need Issue Paper for AKART. Nancy and John Stormon will collaborate

II. Issue Paper Option C

- A. Threshold for low vs high risk?
- B. In guidance
- C. Anything “easy” to put into rule? Obvious fundamental requirements.
- D. We will be learning – don’t want to limit ourselves by putting it in rule
- E. Make risk determination in predesign submittal
 - a. Who could prepare the risk assessment? “Licensed”, “qualified”, ?
 - b. How will this be applied to/determined for existing systems?
 - c. Ask for a baseline evaluation from all existing LOSS
 - d. Is this realistic?
 - e. How quickly would we expect to receive it?
 - f. If repairs in the past, then “high risk” – one criterion
- F. Note that it will be tough to get upgrades to existing LOSS even if declared high risk
- G. High risk: existing system failure
 - a. Surfacing sewage – easy to ID
 - b. Groundwater contamination – difficult to ID without monitoring (and review of results)

WORKING LUNCH

Task 2 – Update on LOSS Operating Permits Subcommittee Meeting - (All)

Melissa McEachron reviewed progress made at the July 16, 2008 (initial) subcommittee meeting and asked members who attended to add their thoughts. The subcommittee plans to meet again on August 28, in place of the cancelled full LRAC meeting.

Comments/Questions:

- Operating permit requirements will be included in the LOSS WAC.
- Will there be different rules for new systems and existing systems? (We don't know yet.)
- Make sure that DOH charges enough for its work from the beginning, and has a sufficient automatic increase for future years.

Additional discussion:

When does sewage (wastewater) stop being sewage (wastewater)?

Key Points -

- Simplified Explanation -
 - Treat the effluent so that it meets reclaimed water standards
 - Determine ahead of time the “beneficial” end use
 - Use the reclaimed water = as the source for beneficial use
- Reclaimed Water Definition says:
 - Treated effluent
 - For a Beneficial Use
 - That would not otherwise occur.
- There is confusion with how the definition works with some of the beneficial uses - trying to understand when LOSS may become treatment for production of reclaimed water.
- Once water is reclaimed, it is considered a water supply and not wastewater.

Task 3 – Audience Comments

No additional comments.

Task 4 – Technical Review Subcommittee Recommendations:

Richard Benson presented the issue papers reviewed by the Technical Review Subcommittee (TRS) and their recommendations from the June 20, 2008 meeting. The results from the TRS Aug 6, 2008 (and possibly from Sept. 9) meeting will be presented at the September LRAC meeting. Richard's PowerPoint presentation highlighted the decisions and recommendations. Copies of the issue papers with TRS results and recommendations were sent to the committee members prior to the LRAC meeting. After explanations, the panel discussed the issues, and voted on whether to accept the TRS recommendation for each issue paper.

Subcommittee Recommendations and Rule Committee Discussion and Votes

Topic 14A: Sewage Tank Sizing

Maximum screen size: 1/8 inch

LRAC Vote: 9-Green

Topic 3: Horizontal Set-backs

Modifications requested by LRAC:

1. Minimum horizontal separation between a drainfield and a lined stormwater pond if the drainfield is within the downgradient flow path of that pond: 100 feet
2. Minimum horizontal separation between a drainfield and any unlined stormwater pond: 100 feet.
3. Minimum horizontal separation between a drainfield and a lined stormwater retention pond if the drainfield is outside the flow path of that pond: 10 feet.
4. DOH may permit or require different set-backs based on site risk, hydro geo evaluation, and level of treatment provided.
5. Horizontal separation between a drainfield and any drinking water spring: 200 feet.
 - If closer, may install through Ecology permitting process, if in compliance with drinking water regulations (sanitary control area for the source).
 - Must observe local critical area ordinance (through consistency requirement), if more stringent.
6. Drainfield upgradient of subsurface stormwater infiltration or dispersion: 30 feet horizontal separation. (last line of table)
7. Drainfield downgradient of subsurface stormwater infiltration or dispersion: 100 feet horizontal separation (last line of table)

LRAC Vote: As presented in Issue Paper #3 plus modifications 1-7: 9-Green

Topic 6: Minimum Land Area

1. Does specifying a minimum land area (MLA) conflict with GMA densities?
 - Impact: LOSS could become an urban service – not allowed in rural area
2. Does specifying a MLA catch the attention of local planners, who may interpret it as allowing or serving urban densities? Minimize this potential?
3. Goal: preserve LOSS option in both rural and urban areas.
4. Option B recommended by the subcommittee
5. Option C: no specified minimum land area – allows consideration of density and Growth Management Hearings Board rulings
 - Removes safeguards: high reliance on hydrogeo reports, which can be designed to suit
 - Local consistency could be the limiting factor (density as determined locally)

LRAC decision: Defer vote; consult with CTED on implications; review calcs. Take back to TRS next week.

Also consider remote drainfield issue: Calculate land area based on gross acreage; require remote treatment site to be contiguous to property served?

Follow-up:

- DOH should prepare a safety factor overview: compare the existing reg with decisions made by LRAC for changes. Concern that the cumulative impact may be less protective.
- Define surface water. See King County result.

Topic 7: Vertical Separation: Allow Reductions?

Is treatment level C still valid, given the TRS recommendations?

Consider soil type when considering reduction to 2 feet (as in small on-site rule)

LRAC consensus: OK to start from 3 feet baseline. Refer this topic to TRS, 8/16.

Topic 9: Wastewater Quality Characterization

If there is no actual data (new application) – use analogous system data or published parameters.

LRAC Vote: Accept TRS recommendation: 9-Green.

Topic 13: High Strength Waste

Should LOSS design engineer assure high strength wastewater is pretreated to at least typical residential septic tank effluent?

Recommendation: YES. Assure to residential waste strength. DOH must establish a better high strength waste standard.

LRAC Vote: Accept TRS Recommendation: 9-Green

Topics 22 and 23: New Installations for Subsurface Drip

Suggestion: Allow >30% slope for LOSS.

- Would be designed by Professional Engineer, not licensed on-site designer.
- Larger installation: more capable contractor assumed
- Probably using a higher level of treatment

LRAC decision: Consider later: will we allow LOSS on slope >30%?

LRAC Vote: Accept TRS recommendations: 9-Green.

Topic 23: Pressure Distribution

Accept from power-point presentation:

“Changes to Foundation Document: Control Panels

- (add: “cut-off switch”) Located outside within line of site of the pump tank
- (delete) *Capacity for remote or off site operation and alarm notification*
- (delete) *Capability to connect to an emergency power generator – option when smaller than required pump chamber volume is proposed (delete)*

Changes to Foundation Document: Misc.

- **(delete & place statement of intent in guidance)** *Minimum volume of each dose at least five times the internal volume of pipe network to be pressurized*
- **(add “all electrical components”)** meet Washington State Department of Labor and Industries requirements (delete) *for Class I, Division I locations*

Discussion:

- Include means for actual flow measurements and include directions in O&M manual for the LOSS. (DOH follow-up on metering/flow measurement)”

LRAC Vote: Accept TRS recommendations: 8-Green; 1-Red. Red: Should have firm requirement to install meters to measure flow (mag meter); OK with group decision.

Wrap-Up

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Dave told members he and DOH are very pleased with the progress on the LOSS rule and that the advice we are receiving is very valuable. He voiced his concern that we will not be able to get to all the prioritized issues in only 2 more meetings. He asked members if they would be willing to meet a few more times beyond October. The group said yes. Dave asked if there was anything else members had to add before adjourning.

Question- Could DOH run through the schedule for the next 2 months or so? Yes. (See Scheduling Changes under Action Items and Follow-Up)

Next Meeting: September 30, 2008. Lacey Ecology Office - Auditorium

- Ecology office is off the Martin Way exit on I-5. We will provide a link to a map.
- Visitor parking:
 - On the left, just before the parking garage.
 - In the parking garage (limited). Do not use “reserved” or “paid parking” spaces.
 - Lot behind the parking garage.
 - Department of Natural Resources – way back parking (old St Martin’s University dorms)
- Sign in at guard station (front door)
- Auditorium is downstairs.

[Adjourn 3:25](#)

Meeting Attendees

Department of Health

Maryanne Guichard, Director, Office of Shellfish and Water Protection
 Dave Lenning, Manager, Wastewater Management Program
 Denise Lahmann P.E., Engineering Supervisor, WWMP
 Melissa McEachron, WWMP Rule Coordinator
 Richard Benson P.E., Technical Issues Lead

Committee Members and Alternates	Guests
David Jensen P.E., Design Engineers	Craig Goodwin, Northwest Cascade
Dale Broyles, WA State Parks	Jason Churchill, Orenco Systems
John Stormon, Ecology	Jim Gleason, Enviroquip
Judy Hockett, WSDOT- Operations	Robert Nation, Fextex Systems, Inc
Jerry Deeter, Public Health, Kitsap Co. Health Dist.	Allison Blodig, Premier Tech Environment
Mark Nelson, Private Utility District, Evergreen Valley Utilities	
John Poppe, Public Utility, West Sound Utility Dist. & WASWD	
Scott Jones P.E., Design Engineers, Jensen Engineering	
Matt Lee, LOSS O&M Companies, Aqua Test Inc.	
DOH Staff	
Linda Pang P.E., Wastewater Management Program	
Jeanne Andreason, P.E., Wastewater Management Program	
Mamdouh El-Aarag P.E., Wastewater Management Program	
Nancy Darling, Wastewater Management Program	
Kelly Cooper, Environmental Health Div.	

Parking Lot Items

2/28/08

Legislative Issues:

- UTC regulation of private, for-profit management companies, if allowed.
- Staffing to implement the rule. (inspection workload)

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3/25/08

No adds

4/24/08

Attorney General consultation topics:

- Stretch “annual” permit to reduce costs.
- Interpret “initial permit in compliance”.

6/26/08

No adds

7/30

AAG Consultation Topics:

- Ask AAG: How does 2007 LOSS legislation impact existing LOSS?