



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

State Water Quality Division – Wastewater Program

1410 North Hilton • Boise, ID 83706 • (208) 373-0502

C. L. "Butch" Otter, Governor
Curt Fransen, Director

MEMORANDUM

April 1, 2015

TO: Health District Environmental Health Directors
Health District Land Based Program Supervisors
DEQ Regional Office Administrators
DEQ Regional Office Engineering Managers
DEQ Wastewater Program Staff – State Office
DEQ Water Engineering Staff – Technical Services

THROUGH: Chas Ariss, P.E., Wastewater Engineering Program Manager

FROM: Tyler R. Fortunati, R.E.H.S., On-Site Wastewater Coordinator

SUBJECT: Engineering Design Review for Subsurface Sewage Disposal Systems

This memorandum provides clarification on the review of plans and specifications for engineered subsurface sewage disposal systems when the Department of Environmental Quality (DEQ) is involved in the plan review process. This memorandum is intended to provide a standardized process for the plan and specification review; provide for exchange of written comments; and permit issuance when a joint plan review is performed between DEQ and a health district. Please see the April 4, 2014 memorandum for further direction regarding Large Soil Absorption System (LSAS).

DEQ Involvement in Plan and Specification Review

Per the Memorandum of Understanding (MOU) between DEQ and the Public Health Districts, plan and specification review for engineered subsurface sewage disposal systems may be a joint effort between DEQ and the health districts for any engineered system.

DEQ shall:

- Review subsurface sewage disposal system plans and specifications and provide written comments to the health district for all engineered public systems, large soil absorption systems, central system collection lines, and experimental system designs.

DEQ may:

- Review subsurface sewage disposal system plans and specifications and provide written comments to a health district for any engineered subsurface sewage disposal system at the health district's request.

All subsurface sewage disposal system plans and specifications for engineered public systems, LSASs, and central system collection lines shall be delivered to the health district's local DEQ

regional office. All subsurface sewage disposal system plans and specifications for experimental system designs and engineered systems that are not delivered to the DEQ regional office as described above shall be delivered to DEQ's On-Site Wastewater Coordinator. When DEQ receives plans and specifications the agency shall provide comments to the health district within 42 days of the date the plans and specifications were submitted to DEQ as required by Idaho Code §39-118 and IDAPA 58.01.16.400.03.a.

DEQ Plan and Specification Review Process

Upon receipt of any plan and specifications related to subsurface sewage disposal systems DEQ shall:

1. Verify that the health district received a copy of the plans and specifications and obtain a copy of the subsurface sewage disposal permit application and associated site and soil evaluation performed by the health district if they were not forwarded to DEQ through the health district.
 - a. Wastewater discharges that contain any volume of non-domestic wastewater shall include a completed copy of DEQ's non-domestic wastewater checklist as part of the permit application. The non-domestic wastewater checklist must be complete and the proposed system design must address any treatment needs for the non-domestic wastewater prior to review of the plans and specifications. Applicants should work with the DEQ regional office prior to completing the non-domestic wastewater checklist to ensure that their submittal will cover the necessary wastewater constituents.
 - b. Wastewater generation from any non-residential sources shall be described through a letter of intended use that is included as part of the permit application. Minimum requirements for a letter of intended use are described in the *Wastewater Flows* section of the Technical Guidance Manual for Individual and Subsurface Sewage Disposal Systems (TGM).
 - c. Plan and specification reviews of nonmunicipal wastewater treatment or disposal facilities are limited to IDAPA 58.01.16.401.
2. Review the plans and specifications for compliance with the following rules:
 - a. Central System Collection system – IDAPA 58.01.16.409, 58.01.16.410, 58.01.16.411, 58.01.16.425, 58.01.16.430 (excluding 430.02.a for collection systems designed for less than 2,500 gallons per day), 58.01.16.441, 58.01.16.455.b.ii.
 - i. To be considered a collection system there must be more than two structures, under separate ownership discharging to the same wastewater conveyance system. The collection system does not include the building sewer service line between the structure and the collection system main line or lateral. The collection system terminates at the point of treatment, which may be either a septic tank or a mechanical treatment plant directly preceding the dosing chamber and drainfield.
 - ii. The Facility Plan required by IDAPA 58.01.16.410 and the Preliminary Engineering Report required by IDAPA 58.01.16.411 are only required for collection systems designed for private municipal wastewater treatment plants

- receiving 2,500 gallons of wastewater per day or more and must be submitted to DEQ prior to the submission of plans and specifications for the collection system.
- iii. Demonstration of Technical, Financial, and Managerial Capacity required by IDAPA 58.01.16.409 is only required for collection systems designed for private municipal wastewater treatment plants receiving 2,500 gallons of wastewater per day or more and may be submitted to DEQ prior to or concurrently with the submittal of plans and specifications for the collection system.
 - iv. DEQ will not approve a collection system for a subsurface sewage disposal system until the owner has received a subsurface sewage disposal permit from the health district of jurisdiction for the central system drainfield that the collection system will be connected to per IDAPA 58.01.16.455.03.b.ii.
 - v. An Operations and Maintenance Manual, required by 58.01.16.425, must be submitted to DEQ prior to placing the wastewater collection system into service. An Operations and Maintenance Manual is not required for collection systems designed for less than 2,500 gallons per day.
- b. LSASs – IDAPA 58.01.03 for the community septic tank, dosing chamber and drainfield, and IDAPA 58.01.16 for the wastewater treatment system preceding the common dosing chamber and drainfield if advanced treatment is required.
- i. LSAS design plans and specification will not be reviewed by DEQ until the applicant has successfully completed a nutrient-pathogen (NP) evaluation for the proposed system and site (see the April 4, 2014 LSAS memo). NP evaluations are submitted to and reviewed by the DEQ regional office that the proposed system will be located within.
 - ii. The LSAS design must comply with IDAPA 58.01.03 for the design of the septic tank, common dosing chamber for drainfield pressurization, and the drainfield.
 - iii. Compliance with IDAPA 58.01.03 includes the system design conforming to the recommendations of the Technical Guidance Committee (TGC) for all alternative system components as required by IDAPA 58.01.03.004.10. Recommendations of the TGC are contained within the Technical Guidance Manual for Individual and Subsurface Sewage Disposal Systems (TGM). All components of the LSAS that are included within the alternative systems section of the TGM (section 4) must meet the conditions of approval, design, and construction related to the specific component including the design of the pressure distribution system and its associated components.
 - iv. Any private municipal wastewater treatment plant associated with an LSAS that requires more than a septic tank shall be designed in conformance with the applicable requirements under IDAPA 58.01.16.455, 58.01.16.493, and 58.01.16.510 depending on the proposed private municipal wastewater treatment plant design.
 - 1) The Preliminary Engineering Report required by IDAPA 58.01.16.455 must be submitted to DEQ prior to the submission of plans and specifications for

- the private municipal wastewater treatment plant.
- 2) Demonstration of Technical, Financial, and Managerial Capacity required by IDAPA 58.01.16.409 may be submitted prior to or concurrently with the submittal of plans and specifications for the private municipal wastewater treatment plant.
 - 3) An Operations and Maintenance Manual, required by 58.01.16.425, must be submitted to DEQ prior to placing the private wastewater treatment facility into service.
- c. All other engineered systems that are referred to DEQ shall be reviewed for compliance with IDAPA 58.01.03 and the recommendations of the TGC as required by IDAPA 58.01.03.004.10.
3. DEQ comments on, or approvals of, the plans and specifications of engineered subsurface sewage disposal systems shall be provided to the health district that the plans and specifications were reviewed for. Additionally, the DEQ reviewing engineer shall notify DEQ's Wastewater Program Manager and On-Site Wastewater Coordinator upon approval of any plan and specifications reviewed for a health district by copying these individuals on the correspondence delivered to the health district.
- a. All DEQ comments or approvals related to a subsurface sewage disposal system design (engineered individual and LSAS drainfields, experimental systems, and central system collection systems) shall be provided directly to the health district issuing the subsurface sewage disposal permit.
 - b. All DEQ comments or approvals related to collection systems and wastewater treatment plants shall also be provided directly to the design engineer and their client.
 - c. DEQ shall copy the health district on comments and approvals for collection systems and wastewater treatment plants associated with engineered subsurface sewage disposal systems.
 - d. If construction does not commence within twelve (12) months of DEQ's final approval of any engineered plans and specifications, DEQ may require resubmittal of all or part of the plans and specifications for review as allowed by IDAPA 58.01.16.400.03.a.

Health District Plan and Specification Review Process

Upon receipt of any plan and specifications related to subsurface sewage disposal systems that need to be referred to DEQ as required by the DEQ-Public Health Districts MOU, or engineered subsurface sewage disposal systems that the district requests assistance reviewing, the health district shall:

1. Notify the following DEQ staff and forward a copy of the permit application, site evaluation, non-domestic wastewater checklist (if applicable), letter of intended use (if applicable), and system plans and specifications to:

- a. The appropriate DEQ Region's Engineering Manager for any engineered LSAS or plan that contains a central system collection line as part of the system design.
 - b. DEQ's On-Site Wastewater Coordinator for any experimental system or and any other engineered subsurface sewage disposal system that is not described in 1.a above.
2. Review the engineered plan and specifications for compliance with IDAPA 58.01.03 and the recommendations of the TGC as required by IDAPA 58.01.03.004.10. The health districts shall develop a comment list independent of DEQ based upon the health district's review of the plan and specifications. This list may be shared with the reviewing DEQ engineer prior to DEQ's submittal of comments or approval to the health district.
 3. Supply the design engineer and permit applicant with the comments or approvals from both DEQ and the health district upon receipt of DEQ's comments or approval.