

SUMMARY OF POTENTIALLY SIGNIFICANT CHANGES BETWEEN THE 02/18/1998 AND THE 05/24/2007 VERSION OF THE STATE BIOSOLIDS RULE

DELEGATION AGREEMENTS

1. **Revision.** Imposed a requirement that delegation agreements have a termination date of no greater than 5 years.

Section/subsection. WAC 173-308-050(2)(c).

Additional information/rationale. Some delegations agreements with local health jurisdictions have end dates, but others do not. Given that staff and priorities at local health jurisdictions and at Ecology change over time, it seems reasonable to review, potentially revise, and renew delegation agreements on a regular schedule.

Requirements under the 02/18/1998 rule. No termination date.

Why is the revision needed? To provide for a regular review of delegation agreements.

TRANSPORTATION

2. **Revision.** Imposed a requirement that permittees that transport or contract for the transportation of their solids submit a *Spill Prevention & Response Plan*.

Section/subsection. WAC 173-308-100(2).

Additional information/rationale. This is already a requirement in the biosolids general permit. To simplify this requirement and to reduce the costs of developing a plan, Ecology previously wrote a sample plan that facilities could adapt for their purposes. Many facilities have already used this sample plan.

Requirements under the 02/18/1998 rule. There is no requirement for a plan.

Why is the revision needed? To minimize the risk of spillage of biosolids or sewage sludge during transportation. To reduce the risk of impacts to human health and the environment from pollutants and/or pathogens when a spill occurs during transportation. To provide consistency with the biosolids general permit.

BIOSOLIDS FROM OUT-OF-STATE FACILITIES

3. **Revision.** Clarified and simplified the requirements for the exportation of biosolids by facilities outside the state (includes tribal lands). Requires an approval, but not a permit, if bulk material is sent to an Ecology-permitted facility or bagged material is distributed, and requires a full permit if the exporter seeks to manage their own bulk biosolids operation within the state. If bulk biosolids are brought into the state, fees would be assessed based upon the percent of production that is brought into the state.

Section/subsection. WAC 173-308-130.

Additional information/rationale. Program policy that has developed results in an inconsistent approach for tribal facilities and other out-of-state entities. Currently, a few facilities from ID export solids for further treatment into WA, and a few tribal facilities either do the same or send their solids to landfills within the state.

Requirements under the 02/18/1998 rule. Not addressed.

Why is the revision needed? Correct the inconsistent approach being taken on solids from tribal lands and those from other states/nations. Simplify the requirements for those who send material to Ecology-permitted facilities. Collect a fair fee from out-of-state facilities.

CLASS A-ALTERNATIVES 3 & 4

4. **Revision.** Eliminated Class A-Alternative 3 and Class A-Alternative 4.

Section/subsection. WAC 173-308-170.

Additional information/rationale. Class A biosolids are considered to be effectively pathogen-free. Such material can be distributed directly to the public if other quality standards are met. These alternatives allow facilities to show Class A through testing rather than imposing a process requirement as required under all other Class A alternatives. Ecology has concerns about allowing biosolids to be distributed to the public that do not meet a specific process requirement. After reviewing comments, reviewing numerous technical documents, and discussing the issue with a senior microbiologist from the U.S. EPA's Pathogen Equivalency Committee, Ecology decided to eliminate the two alternatives entirely from the rule. The primary argument against the alternatives is that the absence of an organism does not mean that the process is effective in destroying the organism or similar organisms. To-date only a few facilities have used either alternative. At this time it is believed that only 1 facility is actively using either of the alternatives. Ecology has come to an agreement with this particular facility that addresses the current stockpiled material. In the future, facilities will need to either use another Class A alternative (for example, an Equivalency Determination) or manage the material as Class B biosolids.

Requirements under the 02/18/1998 rule. Facilities may use either option to meet the Class A pathogen reduction standards.

Why is the revision needed? Protection of human health from pathogens.

RESEARCH EXEMPTION

5. **Revision.** Provided exemptions from the reporting and permitting requirements for research projects conducted in accordance with an Ecology-approved research plan.

Section/subsection. WAC 173-308-192.

Additional information/rationale. Ecology hopes to encourage legitimate, useful research of biosolids-related issues. Requiring a permit without exception has had the effect of discouraging some research according to some researchers.

Requirements under the 02/18/1998 rule. Research projects where nonexceptional quality biosolids are applied are required to obtain a permit and to go through the entire permitting process.

Why is the revision needed? Simplification of the requirements for legitimate, useful research. Removal of a potential disincentive to conduct research.

SEPTAGE FROM COMPOSTING TOILETS

6. **Revision.** Provided an exemption from the rule for composting toilet systems whose output is transferred to a facility permitted to manage it, and an exemption from the permitting and reporting requirements for owners of composting toilet systems even if they land-apply the output. However, Ecology still maintains the option to require a permit and reporting if necessary.

Section/subsection. WAC 173-308-193; also WAC 173-308-080.

Additional information/rationale. The final rule defines a septage management facility (SMF) and includes SMFs in the definition of a treatment works treating domestic sewage (TWTDS). Composting toilet systems could be considered to meet the definition of a SMF and, therefore, a TWTDS. Except for certain composting facilities with a solid waste permit, all TWTDS are required to obtain a permit. It would be impractical and of questionable value to require a permit for all composting toilet systems whose output may be applied to the land. The final rule does not change the way such material is regulated relative to the 02/18/1998 rule, but it does clarify issues surrounding such systems.

Requirements under the 02/18/1998 rule. The 02/18/1998 rule is silent on composting toilets. Program policy has been to consider the output to be septage (a view shared by the Department of Health), but a permit has not been required for its management. If the material is sent to a permitted facility for management, the operation is exempt from the rule. If the material is land applied, the operation must meet the management and recordkeeping requirements.

Why is the revision needed? Clarification for those who currently transfer the material for management. Avoidance of an absolute requirement that small-scale composting toilet systems obtain a permit if land-applying.

REDUCTION IN RECOGNIZABLES

- 7. Revision.** Imposed a requirement for a removal of “manufactured inerts” for all biosolids and septage. The removal requirement can be met by the use of a bar screen with a maximum aperture of 3/8” or by an equivalent or better process that is approved by Ecology. Facilities will have 5 years to meet this requirement. Facilities that will not handle biosolids or sewage sludge before 5 years, must meet the requirement at the time of final disposition. In addition, imposed a requirement that all material that is beneficially used contain less than 1 percent of recognizable manufactured inerts. Also, defined “manufactured inerts” using the definition previously used in the *Interim Guidelines for Compost Quality* (Ecology publication #94-080).

Section/subsection. WAC 173-308-205; also WAC 173-308-080.

Additional information/rationale. Ecology is required to have a state biosolids program that encourages the maximum beneficial use of biosolids. The existence of garbage in biosolids limits the options for beneficial use in addition to potentially posing a risk to human health due to sharps. Grinding has been allowed to reduce recognizables, however, grinding only reduces the size of garbage in biosolids, it does not remove it. The 1 percent recognizable manufactured inerts standard being imposed is the same standard as that for composts in accordance with Chapter 173-350 WAC.

Requirements under the 02/18/1998 rule. Only septage has any form of requirement regarding recognizables. This requirement mandates that screening or grinding or another approved method be used to remove or reduce recognizables in septage.

Why is the revision needed? Protection of human health from sharps in unscreened biosolids. Ensure that only garbage-free material is land-applied or distributed to the public. Maximize the opportunities for beneficial use of all biosolids products. Apply a consistent approach for septage and other biosolids.

BIOSOLIDS SOLD/GIVEN AWAY IN A BAG/OTHER CONTAINER

8. **Revision.** Imposed a requirement that biosolids sold/given away in a bag or other container meet the criteria to be classified as exceptional quality.

Section/subsection. WAC 173-308-260.

Additional information/rationale. Such material can be (and usually is) distributed to the public. This is already a requirement in the biosolids general permit. The federal biosolids rule is expected to be revised in the future to require this also.

Requirements under the 02/18/1998 rule. The 02/18/1998 rule allows biosolids to be distributed to the public via sale/give away in a bag/other container even if they exceed the Table 3 pollutant limits as long as they do not exceed the Table 1 limits and information on how much can be applied annually is provided to the recipient.

Why is the revision needed? Protection of human health and the environment from pollutants. Consistency with the biosolids general permit. Preparation for anticipated federal program changes.

SEPTAGE

9. **Revision.** Imposed a requirement that all facilities that land apply septage or treat septage for land application obtain a permit from Ecology by defining a “septage management facility” (SMF) and by revising the definition of a “treatment works treating domestic sewage” to include SMFs.

Section/subsection. WAC 173-308-080.

Additional information/rationale. Program policy has been to only require a permit for such facilities if they manage septage from multiple pumpers or if they engage in treatment other than pH-stabilization.

Requirements under the 02/18/1998 rule. A permit is required for septage land appliers only if the operation has been defined or designated as a treatment works treating domestic sewage.

Why is the revision needed? To ensure compliance with the rule by septage land appliers. Protection of human health and the environment from pollutants and/or pathogens. Impose a primary recommendation of the *Septage Management Strategic Plan* (Ecology publication #03-07-018).

10. **Revision.** Combined the previous classifications of Class I, Class II, and Class III septage into a single definition of “septage” and moved language regarding the potential inclusion of grease trap waste (GTW) to WAC 173-308-020(3)(g). The revised WAC 173-308-020(3)(g) allows up to 25 percent of GTW to be mixed with domestic septage without the need for additional approval. It also allows other commercial/industrial septage to be mixed with domestic septage but requires approval from Ecology in addition to allowing a maximum total of 25 percent for all commercial/industrial septage.

Section/subsection. WAC 173-308-080; also WAC 173-308-020(3)(g).

Additional information/rationale. This amendment would result in a definition of septage that is somewhat more aligned with the definition in the federal biosolids rule (40 CFR Part 503) and one that is clearer.

Requirements under the 02/18/1998 rule. There are 3 classes of septage. The classifications depend on the source of the material, the percentages of each sources, and the general length of time of stabilization.

Why is the revision needed? Simplification. More closely match the federal biosolids rule requirements.

11. **Revision.** Added an option to allow Ecology to impose a more stringent application rate than the standard rate allowed for septage if deemed necessary.

Section/subsection. WAC 173-308-270(5).

Additional information/rationale. This could apply to any mixtures of domestic septage with industrial or commercial septage as well as mixtures of strictly domestic septage containing unstabilized septage. Evidence suggests that the nitrogen concentrations of unstabilized domestic septage and some non-domestic septage may be higher than that in domestic septage. The standard formula developed by EPA and believed to be conservative was based strictly on domestic septage. This could also apply to other situations where a more stringent application rate is deemed to be appropriate (e.g., soils with elevated mineral nitrogen concentrations).

Requirements under the 02/18/1998 rule. The standard formula applies to septage applied to the land. More conservative approaches need to be negotiated with the permittee or issued as an “additional and more stringent requirement”, which could be appealed.

Why is the revision needed? Protection of human health and the environment from pollutants.

12. **Revision.** Imposed the same site management and access restriction requirements for sites receiving septage, whether the material is pH-stabilized or not.

Section/subsection. WAC 173-308-270(4).

Additional information/rationale. Effectively, all this requires in addition to the 02/18/1998 rule requirements is that grazing of domestic animals not occur for at least 30 days following application of pH-stabilized septage and that sites are posted for 30 days or 1 year following application (depends on the degree of likelihood of public contact). This is already a requirement in the biosolids general permit.

Requirements under the 02/18/1998 rule. If septage is pH-stabilized, there is no requirement for grazing restrictions or site posting.

Why is the revision needed? Protection of human health and the environment from pathogens. Consistency with the biosolids general permit. Simplification.

STORAGE

13. **Revision.** Provided an option for an exemption from the storage requirements for storage covered under another environmental permit.

Section/subsection. WAC 173-308-280(1).

Additional information/rationale. The final rule allows deferral to other environmental permits that address storage. It does not seem reasonable to subject a facility to 2 separate permitting processes for storage if one permit adequately covers it.

Requirements under the 02/18/1998 rule. Storage of solids (except for temporary storage) requires a biosolids permit, and storage must be addressed when applying for a permit. No provisions for deferral.

Why is the revision needed? Simplification for permittees. Reduction in the workload for program staff. Elimination of a biosolids permit requirement for storage that does not pose a risk to human health or the environment.

14. **Revision.** Provided for the “grandfathering-in” of surface impoundments meeting the Chapter 173-304 WAC requirements, but imposed the Chapter 173-350 WAC surface impoundment requirements for new or upgraded surface impoundments.

Section/subsection. WAC 173-308-280(4) and (5).

Additional information/rationale. The surface impoundment standards in Chapter 173-350 WAC were developed in part to address biosolids/sewage sludge/septage storage. These standards replaced those found in Chapter 173-304 WAC. Surface impoundments approved under the Chapter 173-304 WAC standards may be functioning adequately and not posing a risk to human health or the environment. It seems unreasonable to expect an upgrade to a stricter standard if this is the case. If surface impoundments approved using the Chapter 173-304 WAC standards are likely to result in the contamination of groundwater, surface water, air, or land, then Ecology can require an upgrade [see WAC 173-308-280(3)].

Requirements under the 02/18/1998 rule. Storage in surface impoundments must meet the Chapter 173-304 WAC standards.

Why is the revision needed? Reduce the risk to the environment from the potential release of pollutants in stored biosolids/sewage sludge/septage in surface impoundments. Allow existing facilities to continue operation without upgrading if they are not posing a risk to human health or the environment.

RECORDKEEPING

15. **Revision.** Added a requirement that preparers of biosolids or sewage sludge maintain the following records:

- The amount stored onsite.
- The amount transferred to another facility for further treatment and the name of the other treatment facility.
- The amount transferred for incineration and the name of the incineration facility.

Section/subsection. WAC 173-308-290(2)(j), (k), and (m).

Additional information/rationale. Ecology has consistently requested such information as part of the annual biosolids reports since 1998, and the vast majority of facilities have complied with the request. Thus, facilities are already keeping such records. Such records are deemed to be a reasonable expectation.

Requirements under the 02/18/1998 rule. No requirement to maintain these records.

Why is the revision needed? Such information is necessary so that Ecology can monitor biosolids and sewage sludge management practices across the state.

16. **Revision.** Added a requirement that applicators of nonexceptional quality biosolids maintain the following records:

- The location of each site, either by street address, the latitude and longitude of the approximate center, or the section, township and range of each ¼ section, and a map(s) with the application area(s) clearly shown.
- The number of acres in each site on which biosolids were applied.
- The date biosolids were applied to each site.

- The nitrogen requirement for the crop or vegetation grown on each site.
- The rate, in dry tons per acre per year, at which biosolids are applied to each site.
- The amount, in dry tons, of biosolids applied to each site.

Section/subsection. WAC 173-308-290(3)(a) through (f).

Additional information/rationale. Ecology has consistently requested such information as part of the annual biosolids reports since 1998, and the vast majority of facilities have complied with the request. Thus, facilities are already keeping such records. Such records are deemed to be a reasonable expectation.

Requirements under the 02/18/1998 rule. No requirement to maintain these records.

Why is the revision needed? Such information is necessary to ensure compliance with the rule and permits.

REPORTING

17. **Revision.** Imposed a requirement that all applicable facilities submit an *Annual Biosolids Report* and submit all requested information required by the rule.

Section/subsection. WAC 173-308-295.

Additional information/rationale. Each year Ecology sends a letter and a copy of a report form to all facilities. This is considered to be a written request from Ecology for completion of an annual report. All facilities have complied with this request. Thus, all facilities are already submitting annual reports.

Requirements under the 02/18/1998 rule. Only majors and Class I facilities have to report. Others must report only upon a request from Ecology.

Why is the revision needed? Information obtained in the reports is deemed necessary to ensure compliance with the rule. Implementation of a long-standing program policy.

PERMITTING

18. **Revision.** Imposed a requirement for applications for coverage under a new biosolids general permit for all existing facilities seeking coverage to be submitted within 90 days following the issuance of the permit but allowed for a case-by-case extension up to 180 days.

Section/subsection. WAC 173-308-310(4)(a).

Additional information/rationale. This is already a requirement under the biosolids general permit for some facilities (majors, Class I facilities, out-of-compliance minors, private septage management facilities, and beneficial use facilities). However, the due date for other facilities has led to extensive confusion. To simplify the process and reduce paperwork and the costs associated with it, Ecology will include an expanded checklist in a revised *Application for Coverage* form which will allow facilities to defer to previously submitted documents when applying for a permit so that they are not required to resubmit an attachment or other document that has previously been submitted.

Requirements under the 02/18/1998 rule. The date of submittal depends on facility size, class, compliance status, and timelines under other permits.

Why is the revision needed? Simplification of requirements. Allowance for facility-specific considerations.

19. **Revision.** Reduced the number of newspaper notices, when required, from 2 to 1.

Section/subsection. WAC 173-308-310(13)(a).

Additional information/rationale. Only 1 notice is required under the general permit rule (Chapter 173-226 WAC) and the SEPA rule (Chapter 197-11 WAC).

Requirements under the 02/18/1998 rule. When newspaper notice is required, 2 notices must be run at least 1 week apart, and a public comment period begins after the 2nd notice.

Why is the revision needed? Simplification. Reduction in public notice costs.

20. **Revision.** Eliminated the need for new public notice when applying for coverage under a new general permit if notice was done previously, the facility is in compliance, the facility does not land apply nonexceptional quality biosolids, and the facility is not proposing any significant changes in biosolids management practices.

Section/subsection. WAC 173-308-310(13)(b).

Additional information/rationale. This is related to #21, below. Ecology already does extensive public notice for each general permit. This notice is conducted across the state and includes information on all facilities that have submitted a *Notice of Intent* to be covered under the general permit. Requiring additional notice from facilities that have previously conducted notice, that are in compliance, that are not proposing any significant changes, and that do not land apply nonexceptional quality biosolids seems unnecessary.

Requirements under the 02/18/1998 rule. Ecology's interpretation had been that notice is not required each permit cycle if the facility has previously conducted notice, is in compliance, and is not proposing any significant changes (this interpretation included facilities that land-apply nonexceptional quality biosolids). However, EPA objected to this interpretation.

Why is the revision needed? Clarification.

21. **Revision.** Imposed a requirement for public notice each permit cycle for facilities that land apply nonexceptional quality biosolids, but limited the extent of the notice.

Section/subsection. WAC 173-308-310(13)(c).

Additional information/rationale. Previously Ecology did not require that each facility conduct public notice each general permit cycle if the facility previously conducted public notice, was in compliance, and was not proposing any significant changes. However, EPA objected to this interpretation. The Preamble to Part 503 does imply that EPA expects notice to occur each permit cycle for all land application sites. The final rule limits the extent of the notice by requiring that it occur in the newspaper in the county(ies) where application may occur but not at land application sites if this was done previously.

Requirements under the 02/18/1998 rule. Ecology's interpretation had been that notice is not required each permit cycle if the facility has previously conducted notice, is in compliance, and is not proposing any significant changes. However, EPA objected to this interpretation.

Why is the revision needed? Deemed necessary to be more consistent with the federal biosolids program policy. Simplification of where notice is conducted, resulting in a reduction in notice costs.

FEES

22. **Revision.** Significantly amended the fees section with the intention of creating a structure that covers Ecology's existing costs for program implementation and that is more equitable. The most important changes are the following:

- \$600 minimum fee applied to all facilities.
- \$1,800 nonrefundable review fee for new facilities after July 1, 2007.
- Additional fees apply to each additional residential equivalent (RE), except for incinerators which are capped at the minimum fee.
- Increased the maximum fee for permitted beneficial use facilities and other receiving-only facilities from \$2,500 per year to \$3,000 per year.
- Minimum fees and charges per RE increase by the fiscal growth factor.
- Lower charge per RE for REs above 100,000.

Section/subsection. WAC 173-308-320.

Additional information/rationale. Fees collected from facilities subject to the state biosolids program are supposed to cover all program implementation costs. However, since the inception of the program in 1998, fees recovered have been well below that needed to support Ecology staff working on implementation. The current estimate is that fees collected cover the costs of approximately 4.2 FTEs, but Ecology is committing approximately 6.1 FTEs toward implementation of the program. Fees collected come predominantly from the larger wastewater treatment facilities, but frequently smaller facilities (who often pay no fee at all) require extensive staff time. Currently almost 1/3 of facilities do not pay a fee.

Requirements under the 02/18/1998 rule. The fee schedule results in collection of fees covering only about 2/3 of the FTEs committed to the program by Ecology.

Why is the revision needed? Create a schedule that collects sufficient fees to support the existing program. Create a fairer fee schedule.

ISSUANCE OF GENERAL PERMITS

23. **Revision.** Developed a new appendix that addresses the procedures Ecology will use to issue, revise and reissue, and terminate biosolids general permits. The language is adapted from Chapter 173-226 WAC, Waste Discharge General Permit Program.

Section/subsection. WAC 173-308-Appendix 5.

Additional information/rationale. Ecology currently uses the procedures in Chapter 173-226 WAC to issue general permits. However, Chapter 173-226 WAC was written for wastewater discharge general permits, and does not properly address biosolids in many instances.

Requirements under the 02/18/1998 rule. Defers to Chapter 173-226 WAC.

Why is the revision needed? Clarify the procedures Ecology will use to issue general permits.