

Denise Trabbic-Pointer

Please see the attached additional comments

Emily Kijowski
Biosolids permitting specialist
Via online comment form

July 12, 2021

RE: New Statewide General Permit for Biosolids Management

I am a retired career EHS professional that is extremely concerned about the historic, current, and future impact of the Washington State General Permit for Biosolids and its impact on people, ecosystems, and the environment. I retired in January 2019 after 42 years with DuPont and a spin-off company, Axalta Coating Systems, as their Global Environmental Competency Leader. I am a Chemical Engineer with a BS and MS in Hazardous Materials Management by education and a health and environmental manager by career. Since May 2019, I have been the Sierra Club – Michigan Chapter, Toxics & Remediation Specialist.

I have reviewed the Draft Statewide General Permit for Biosolids Management and the Ecology “Per- and Polyfluoroalkyl Substances [PFAS] Draft Chemical Action Plan” and have the following additional comments. **Note that this is my 2nd public comment submittal on this draft permit. The following are new comments.**

1. Review of the 2007, 2015 and draft version of the General Biosolids Permit [Permit] indicates that there is and never has been allowances in the Permit for the use of biosolids that contain discharges from industrial activities. However, this requirement is not clearly spelled out. Categorical discharges in particular, as defined in 40 CFR 403, should not be allowed in biosolids that are received, stored, treated, or applied to land under this Permit. The following are examples of how this lack of clarity can confuse those having to meet the Permit and can lead to unintended consequences.
 - The case of Emerald Kalama Chemical, Inc [Emerald]. and Fire Mountain Farms (FMF) is illustrative of what can and did happen when permits are not clear in what is and is not allowed. In this case, FMF received categorical industrial biosolids from Emerald for nearly 19 years, treated and blended it with other materials, and then stored and land applied it. That FMF was receiving industrial sludge from Emerald Kalama should have been made clear to Ecology by a 2009 Fact Sheet submitted by Emerald where they state: “The sludge is registered as a fertilizer with the Department of Agriculture. Emerald loads the sludge into the trucks and sends it to Fire Mountain Farms in Lewis County for land farming.”

As outlined in the Department of Ecology, State of Washington document “Fact Sheet: 2021 General Permit for Biosolids Management”, FMF is defined and permitted as a beneficial use facility (BUF). According to the Draft Permit, a beneficial use facility is defined as: “A receiving-only facility consisting of a site or sites where biosolids from other treatment works treating **domestic sewage** are applied to the land for beneficial use, which has been permitted as a treatment works treating domestic sewage in accordance with the provisions of WAC 173-308-3107, and that has been designated as a beneficial use facility through the permitting process.”

- The 2021 draft General Biosolids Permit Fact Sheet states that “This permit does not apply to sludge generated by the treatment of industrial wastewater.” The Fact Sheet then goes on to enumerate the status of 375 facility types and to list all subject facilities. I make note that one facility listed as subject to the General Biosolids Permit is the Tacoma Central WWTP. The Tacoma Central WWTP clearly receives industrial discharges as evidenced by their 2015 renewal application and the fact that they are on the list of facilities that are subject to the Permit is in conflict with the Fact Sheet statement that the Permit does not apply to sludge generated by the treatment of industrial wastewater. The same is true of the Spokane City Adv Wastewater Treatment Plant and I am sure there are others on the list.

Recommendation: Ecology must clearly state that biosolids derived from industrial discharges are not allowed in biosolids that are received, stored, treated or land applied by facilities that are subject to the draft General Biosolids Permit. State NPDES permits must also clearly state the same prohibition.

2. Just by nature, having general permits for some portion of the regulated community, NPDES for others and both an NPDES and general permit for yet another segment, complicates and confuses those who must comply. In review of the 2007, 2015 and draft General Biosolids Permit, there is no clear reference or definition in any version that describes the difference between the regulated segment(s) and how applicable discharge permits must be managed.
 - The above example regarding Emerald Kalama and Fire Mountain Farms is also a good example of this problem. FMF is now covered by the General Biosolids Permit. Emerald is covered by NPDES Permit WA0000281. It is unclear whether FMF was covered by any type of permit when they entered the agreement back in 1996. The question that we ask is, "were there missing elements of the General Biosolids Permit that would have made a difference or that would have prohibited Emerald or FMF from making and implementing their arrangement?" The answer that we came to is that “it is not clear” from reading both permits or by review of related Agreed Orders and/or Federal Registers and delisting documents.

Recommendation: We suggest that clarifying language and/or a flow chart should be added to the General Biosolids Permit that will clearly show what each regulated segment must do and not do in order to meet all conditions of the applicable permits to which they must comply. Better yet would be to combine the General Biosolids Permit requirements into the NPDES program so that a subject facility has regulatory conditions outlined in one permit document. An improved permitting framework would greatly benefit and assist the regulated community in meeting State biosolids management program requirements.

3. The Permit references a “biosolids management program” in numerous locations in the document but does not define what a biosolids management program is or what the specific requirements of the program are. In the Ecology document, Biosolids Management Guidelines for Washington State, it explains that the permit application “is a comprehensive description of the applicant’s biosolids management program [Program], and includes biosolids production and quality data, site monitoring data, maps, a listing of other environmental permits, names of contractors applying biosolids, and detailed land application plans.” The guidance document is 235 pages long and not well publicized, leading me to believe that it is not likely that many sites that are subject to the Permit have reviewed it and thoroughly understand what they must do in order to comply with all aspects of the Program. There is no provision in the Permit for sites to

have a Biosolids Management Plan [Plan] to meet the Ecology's Program. And the permit application format is not conducive to laying out the site's Plan or for tracking compliance. Without a Plan to work from, it is more likely for sites, once their permit application is approved, to not consider the Program until it was time to submit their next annual report. Without a Plan, many sites might miss related notifications that must be made when biosolids management practices change or new dischargers are added.

Recommendation: The Permit should include a requirement for subject facilities to have an approved Biosolids Management Plan to meet the requirements of the Ecology biosolid management program. It is another added provision that would help with the issue of facilities that are subject to the Permit from accepting prohibited discharges or from using prohibited biosolids.

4. The Permit requires that a General Land Application Plan (GLAP) and/or a Site-Specific Land Application Plan (SSLAP) for non-exceptional quality biosolids or septage that is applied to the land but are not required for Exceptional Quality (EQ) biosolids. The exceptions listed in WAC 173-308-310(8)(a)(ii) or (iii), are quite subjective and include statements like "may be required" or "if the department finds there would be a strong benefit to the public". It would seem that "the department" would not know if land application from a particular facility is or is not beneficial to the public if there is no plan for them to review. The lack of a requirement for facilities that land apply EQ biosolids to have a land application plan, risks the application of biosolids to land that might contain hazardous contaminants, both currently regulated and emerging (e.g., PFAS, pharmaceuticals and personal care products (PPCP)). EQ biosolids are most common to larger wastewater treatment plants and thereby are most likely to contain discharges from industry, commercial laundries, airports, military bases, and landfill leachate.

Recommendation: Add a requirement to the Permit that General and Site-Specific Land Application Plans must be prepared for all Exceptional Quality biosolids, without exception.

5. In the April 2021 Response to Public Comments: Fire Mountain Farms Biosolids Permitting Agreed Order, Ecology repeatedly quotes *Prosser RS and PK Sibley. 2015. Human health risk assessment of pharmaceuticals and personal care products [PPCPs] in plant tissue due to biosolids and manure amendments, and wastewater irrigation*, in their responses and excuses for not considering public concerns about potential contaminants in land applied biosolids. This study and article contains conflicting data and erroneous conclusions and should not be used as a supporting reference for continued land application of biosolids. Examples of misleading data and erroneous conclusions includes: "While the values for a number of the hazard quotients reported in the original paper have changed, the conclusion from the paper has not: the majority of hazard quotients for individual chemistry were < 0.1 and indicate de minimis hazard to human health. However, when additivity is assumed, a number of the hazard quotients exceeded 0.1 indicating the potential of the mixture to pose a risk to human health and the need for further assessment." And "Assuming additivity, the mixture of PPCPs could potentially present a hazard. Further work needs to be done to assess the risk of the mixture of PPCPs that may be present in edible tissue of plants grown under these three amendment practices." Health risk studies should not simply look at single contaminate hazard indices when it is known that there are numerous contaminants (in this case, PPCP) with similar, cumulative effects present in biosolids and where additive impacts must be considered.

Recommendation: Ecology should gain a better understanding of the articles and topics that they quote in response to valid public concerns about their health and should definitely stop quoting this particular study. Perhaps it would be wise to consult the Washington Health Department when using such articles as supporting evidence of continued land application of biosolids. Protection of public health and the environment is Ecology's responsibility.

Thank you for the opportunity to comment.

Denise Trabbic-Pointer, CHMM Emeritus
Sierra Club - Michigan Chapter
Volunteer: Toxics and Remediation Specialist
dtrabbicpointer@gmail.com