

ERTS Complaint 4 August 2022

Dear Environmental Risk Tracking System,

This is a complaint regarding discharge to groundwater and excessive air pollution by Klompe and Frieslandia Dairies located on Hornby and Stover Roads between Grandview WA and Sunnyside, WA. This complaint is based on the fact that Klompe/Frieslandia is composting manure in the pens where cows eat, sleep, and live out their short lives.

There is well documented soil testing from other Lower Yakima Valley (LYV) dairies that demonstrates significant leaching to groundwater from pens and corrals, and from compost areas.¹ When an operator overlays composting on top of drylot pens he/she significantly increases the amount of nitrogen and other pollutants on that land with a high potential for leaching to groundwater.

Proper composting requires provision for removal of compost runoff that directs the runoff to a waste storage pond. The attached aerial photos of compost in Klompe/Frieslandia drylot pens shows no provision for runoff. In fact, there is no apparent provision for runoff from any parts of the cow pens.

Proper composting results in the emissions of significant amounts of volatile organic compounds, fine particulate matter, ammonia, carbon dioxide and methane.² To the best of our knowledge, no one has quantified these emissions for LYV dairies. Because the composting takes place where cows live, and because composting generates these emissions, this practice is harmful to the cows that are simply slaughtered when they become sick. Because the composting takes place near to family homes it harms the health of the men, women, and children who live nearby.

The Friends of Toppenish Creek have asked the WSDA Dairy Nutrient Management Program to provide any Best Management Practices (BMPs) that justify composting manure in pens with cows. The DNMP ignored us, probably because there are no such BMPs. The dairy inspectors do not prevent Klompe/Frieslandia from engaging in this practice which many consider animal abuse.

To the best of our knowledge, there are no approved BMPs for dairies. However, in 2014 the Yakima Regional Clean Air Agency (YRCAA), in collaboration with dairy experts, listed BMPs that agency found useful for addressing air pollution.³ Two of those BMPs are:

***Remove and/or Spread (Harrow) Manure Frequently** (NH₃, PM) Ammonia emissions from open drylot pens are due to infrequent manure removal. There are two types of in-pen manure management: (i) spreading or harrowing, and (ii) complete manure removal. In general, manure in drylot pens should be completely cleaned out every one to three months. The reduction in the quantity of manure results in less ammonia volatilization and also minimizes PM (dust) production from animal hoof action on the loose manure pack. More frequent (monthly, weekly) removal of manure from areas where manure deposition is highest (i.e., sleeping areas, feed bunks) is desirable. Installation of concrete alleyways adjacent to feedbunks aids in daily collection of manure and further*

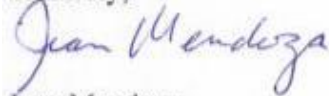
reduces ammonia volatilization potential. The daily harrowing of pens should be practiced to spread out the manure pack, but should only be done during times of the day when PM production will not be an issue, such as the early morning.

And for Composting Areas:

Properly Manage the Composting of Solid Manure (H₂S, Odor, PM, CH₄) *The effectiveness of the composting process is highly dependent on good management of pile characteristics including temperature, moisture, carbon to nitrogen ratio (C:N), and aeration. Low temperature, high moisture, and low aeration will lead to anaerobic conditions inside the manure pile and increase odor, H₂S, and CH₄ emissions. A shift from anaerobic to aerobic process can cause a nitrification/denitrification cycle that can increase N₂O losses. Low C:N (below 12:1), high temperature, and high aeration of the compost pile will increase NH₃ volatilization, which can be up to 90% total N loss under these conditions (12). Low moisture will increase PM emissions. A C:N above 12:1, and optimally around 30:1, will have reduced NH₃ emissions, while still supporting an active composting process.*

Based on the fact that there is no justification for composting manure in animal corrals and pens, and the fact that this practice concentrates water and air pollution in a small area, FOTC complains to the ERTS that Klompe Dairy and Frieslandia Dairy are discharging pollutants to the water and air in amounts that endanger human health and the environment.

Sincerely,



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¹ Attachments 1, 2, & 3

² Compost Emission Factor Report. San Joaquin Valley Air Pollution Control District. Available https://www.valleyair.org/busind/pto/emission_factors/Criteria/Criteria/Composting/Compost%20EF.pdf

³ Yakima Regional Clean Air Agency. 2018 YRCAA Resource Guide and Best Management Practices for Dairy Operations. Available at https://www.yakimacleanair.org/site/files/file_manager/page/shared/Resource%20Guide%20for%20BMP%20for%20Dairy%20Operation%20Aug18.pdf

