Purpose

In the midst of the Coronavirus Disease 2019 (COVID-19) outbreak or other such disease outbreaks, there may be cases where the supply chain is disrupted or delayed for a dairy operation. This document serves as a reminder of what can be done to prevent an environmental impact or a catastrophic loss in cases where bulk waste milk must be disposed. The following are considered cases where a dairy farmer may be faced with disposing of bulk waste milk:

1. a delay in milk pick-up;
2. a rejected bulk milk tank; and
3. a tanker truck that has returned to the producing farm due to lack of storage at the processing plant.

Proper disposal of the bulk waste milk can be done in a safe and environmentally sound manner. The manure or process wastewater storage facilities is the preferred place for disposal of bulk waste milk to ensure the dilution of the milk. This activity is allowed under the DEQ Virginia Pollution Abatement (VPA) Regulation and General Permit for Animal Feeding Operations (AFO) and Animal Waste Management. However, manure, bulk waste milk or process wastewater **cannot** be discharged into State Waters (surface water or groundwater) under any circumstances with or without a DEQ animal waste permit (e.g. VPA AFO permit).

The direct application of un-diluted waste milk to crop, hay or pasture fields is not preferred. Milk has a higher plant available nutrient content than typical liquid dairy manure; a very high Biological Oxygen Demand (BOD); and produces a pungent odor. The higher nutrient content can lead to the over-application of nutrients and crop uptake issues. If milk gets to surface waters (ponds, streams, etc.) due to a direct discharge or runoff, organisms will die because the microbes that break down the milk use large amounts of oxygen that is needed by aquatic organisms.

Once milk has left the farm, it is preferred that the milk is not returned to the farm. If at all possible, the processing plant should make arrangements to dispose of the waste milk in accordance with the plant's disposal plan. If a farmer is asked to accept milk produced at a farm other than his own or if his milk has been comingled with milk produced at a farm other than his, it is considered an "off-site waste", then the DEQ permitted dairy farmer must document some information (see the *Recordkeeping Items* section on next page).

Before the Emergency

To prevent environmental impacts and catastrophic losses, consider taking the steps outlined below now before the need for disposing of bulk waste milk becomes a necessity:

- Contact DEQ if you have questions, concerns or would like to know your options under your permit.
- Ensure there is adequate storage space in the manure or process wastewater storage facilities prior to disposing of bulk waste milk.
- For liquid manure storage, if the freeboard is less than 24 inches, make arrangements to land apply the manure to gain storage space in the facility.
  - Where possible, land apply the manure in accordance with your NMP.
  - Document any changes to your NMP and contact your NMP writer for advice and revisions.
  - If the land application timing will not be in accordance with your NMP and in the absence of a revision or advice from your NMP writer, land apply the manure on the highest and driest land. It is preferable that the field has an active crop or the field will have a crop planted for the next season.

During the Emergency

- Contact DEQ if you have questions, concerns or would like to know your options under your permit.
- Record freeboard measurements and land application events along with their dates for your records.
- If you accept bulk waste milk from another farm, the waste is considered "off-site waste", record the information listed in the *Recordkeeping Items* section below.
- Agitate the contents in the storage facility to lessen odors and fly breeding caused by the addition of the bulk waste milk.
- Do not add the bulk waste milk to a sand separator as it will clog the system and produce potent odors.
- When adding bulk waste milk to a multi-stage waste treatment system, it should added near the end of the system closest to the land application stage.

After the Emergency

If bulk waste milk is disposed of in your storage facility:

- Contact DEQ if you have questions, concerns or would like to know your options under your permit.
- A new waste sample must be obtained and analyzed to determine the nutrient content of the waste prior to land application.
- Communicate with your nutrient management plan writer about the situation, let them know you may need revisions to your NMP based on a new waste analysis or changes you made during the emergency.
- Consider extending the required setbacks to environmentally sensitive sites when applying manure that contains a high bulk waste milk content.

Recordkeeping Items

If you accept bulk waste milk from another farm or from the processing plant <u>and are covered by a DEQ animal waste permit</u>, the requirements outlined below must be followed.

When wastes are treated by a digester or other manure treatment technologies such as an anaerobic or aerobic treatment facility. The waste treatment process shall be approved by the department and shall be managed by a facility covered under the VPA AFO permit and in accordance with the following conditions:

a. All treated wastes generated by a digester or other manure treatment technologies must be managed through an approved nutrient management plan or transferred to another entity in accordance with animal waste transfer requirements in Part 1 B 15 and 16 of the VPA AFO permit.

b. When a facility covered under the VPA AFO permit generates a treated waste from animal waste and other feedstock, the permittee shall maintain records related to the production of the treated waste.

(1) If off-site wastes are added to generate the treated waste, the permittee shall record the following items:

(a) The amount of waste brought to the facility; and

(b) From whom and where the waste originated.

(2) For all treated wastes generated by the facility, the permittee shall record the following items:

(a) The amount of treated waste generated;

(b) The nutrient analysis of the treated waste; and

(c) The final use of the treated waste.

(3) Permittees shall maintain the records required by b (1) and (2) above on site for three years. All records shall be made available to department personnel upon request.