

10 Minute Supervisor Trainings



June 2020

LAGOON CLOSURES

We have all seen the changes in the past several years in agriculture in Kentucky. Much of the changing landscape of agriculture has involved the small dairy farms selling out and changing their direction of business. This has resulted in many unused lagoon ponds, which previously were animal waste storage for the dairy farms.

Since lagoons are permitted structures, the Division of Water requires that as long as they are in existence, they must maintain the permit on them. If they fail to renew the permit on the structure or it has any issues, such as overflowing, even when not in use, the landowner can be cited for the violation. DOC along with DOW have collaborated to develop a plan for landowners to close these lagoons without requiring what used to be a mandatory Certified Nutrient Management Plan. Although this new closure method is not eligible for NRCS funding, it is eligible for state cost share funding or can be paid for by the landowner.

Landowners are required to provide the following to Division of Water when using these procedures:

- Previous permit number issued by Division of Water
- Location map (Including the location of the lagoon and maps of the application area where the manure will be applied)
- Latitude and Longitude coordinates
- Physical address of the farm where the lagoon exists
- All landowner info (including mailing address, phone number, farm number, etc.)
- How the contents of the lagoon will be disposed of, including sludge (hose pumped, slurry wagon applied, solids spreader applied). This should also have field numbers from the corresponding maps for application areas.
- How lagoon is to be filled and covered (equipment to be used and material)
- Estimated start and completion date
- Provide an exit letter stating that the lagoon has been closed. This letter should be signed and dated for self-certification purposes within 30 days following closure.

Steps for closure:

- Step 1: Close all conveyances that are attached to the lagoon. These include milk house drainage pipes, ditches, ramps, or any other structures that directly input into the lagoon.
- Step 2: Perform an agitation of the lagoon to be certain that the consistency can be pumped. In cases where there isn't enough liquid to provide adequate pumping results, it may be necessary to add water. Maximum application rates should consider the intake capability of the particular soils. For most soils, a recommended maximum application rate is ½ inch per acre.
- Step 3: After pumping all liquids from the structure, excavating equipment should be used to remove the remaining sludge. This can be piled on site for drying until it is able to be land applied but should be stored using all DOW setbacks and for a short of a period of time as possible.
- Step 4: Once all sludge is removed, breach of the lagoon structure dam may be necessary to prevent filling of the site with water until it is closed.
- Step 5: The lagoon will be filled in and the site will be restored to its original ground contour.
- Step 6: Following seeding guidelines, 50 pounds of fescue per acre will be applied to the site. There should also be 3 tons of mulch material per acre applied. A fertilizer application of 1200 lbs of 10/10/10 and 3 tons of lime per acre is also required.

***** During any stage of the closure, all Ky Ag Water Quality Authority setbacks must be followed. See attachment #1.***

***** For More information please reference University of Kentucky "Closing a Liquid Manure Storage Structure" AEN-125.***