



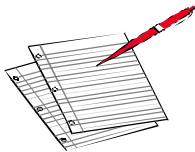
BIOSOLIDS BUSINESS

by Jorja DuFresne

Ahhhhhh - we're coming up on that time of the year again. Stop relaxing and get ready for the haul! Meanwhile, I have to get ready for the courses, phone calls, emails, and last minute site application proposals. As I've said in the past, this communication is critical when trying to get the job done right. I put a lot of emphasis on communication in the last issue of the Wastewatcher with the intent to expand on that to keeping records of biosolids management. From process control of wastewater and solids handling through land application events, detailed records must be kept.

The detailed records serve as one of the final sources of information for communicating and evaluating the compliance status of a facility - whether between staff and management or between the permittee and regulators or the public.

So, as we move into the major part of the land application season and annual reporting, let's take a look at some of the detailed records that should be available for an inspection. *[We can look at other records that are specific to different treatment processes in another article.]* These records should verify that what is stated on the annual report is correct and that the farmers got appropriate information. **Detailed records include and should be available to an inspector as described below.**



General Records of Land Application for Compliance Verification

Verify sites are approved and whether any special management conditions are required and met.

- Site approval letters
- Site maps may be looked at to see if soils are highly permeable or have application restrictions due to water table depths.

Verify that soil sampling is up to date.

- Records of soil analyses for sites used in land application.

Verify total amount applied and amount applied per acre in order to ascertain compliance with meeting requirements for application at agronomic rate and tracking cumulative metals.

- Daily hauling logs to specific sites/ dates and amounts
- Total acres actually covered per application [note: rule requires biosolids to be applied evenly]
- Truck calibration to include how much it holds at fill levels you use and the application rates [per acre] based on driving speeds
- Method of application [surface/inject/ surface and incorporate and timing if incorporated]

- If dewatered biosolids are applied, method and calculation used for going from wet to dry tons
- If long-term storage of dewatered biosolids takes place, records of where on the site it was stored each year
- Calculation of available nitrogen per dry ton, dry tons per acre, and nitrogen applied per acre from biosolids applications
- Calculation of metals per dry ton and pounds applied per acre and historic cumulative records for the sites [records to be kept indefinitely]
- Representative sample/s analysis

Verify analyses by looking at sampling protocol, holding times, analytical methods.

- Records of sampling event/s that includes the date, time, type of samples, sample ID, location of sampling, how samples are stored, who sampled, sample container type, and preservation method
- Date sample/s were sent to the lab
- Dates and methods of analyses

Verify that the farmer/s were given a “farmer information sheet”

- Copy of the one given to the farmer should be kept in files.

This is a good starter list and applies to everyone independent of their treatment processes or choice of methods used to meet standards. As I mentioned above, we can take a look at record keeping for specific processes in the next issue. If you have other ideas for articles, training, or anything else related to biosolids let me know by calling [651-296-9292] or sending me an email [jorja.dufresne@pca.state.mn.us].

PS. I hope to get out more now on inspections since my “grant” work is done!