Division of Environmental Health
SOLID WASTE PROGRAM

August 2020

FACT SHEET

Revision to 18 AAC 60.800-860 – Landfill Monitoring

Who is impacted?

- Impacted facilities are typically larger, more complex facilities, such as Class I and II municipal landfills, and non-municipal landfills, such as oil and gas monofills and inert waste monofills. The proposed regulation changes will only impact those facilities already governed by the current regulations. Many facilities across the state are already voluntarily complying with the proposed groundwater and surface water monitoring regulations.

Why should the State of Alaska adopt these new standards?

- The proposed changes to regulations are motivated by the Solid Waste Program's desire to stay current with technology and to improve the results and benefits the monitoring programs.
- Visual, air, and surface water monitoring requirements are not listed in federal standards. The current state standards are 20 years old and out-of-date with current standards. These out-of-date standards are proving to be inadequate for conducting monitoring. For instance, surface water monitoring standards incorrectly reference groundwater monitoring standards and analytical techniques. Also, as landfills age, they generate explosive gases which have the potential to migrate to surrounding areas which can include neighborhoods. Currently, explosive gas generation and migration is a concern at several landfills. However, current regulatory requirements are obsolete and do not provide an adequate mechanism to detect or track subsurface gas migration, as they do not specify minimum requirements for subsurface monitoring probes.

Why are the gas monitoring regulations being updated?

- Explosive gas is a potential health and safety hazard, particularly when it migrates from the landfill to neighboring buildings and residences. Improving monitoring is important to maintain safety at landfills and their surrounding areas.
- The proposed changes to gas monitoring are necessary to meet the intent of federal requirements and to ensure the accuracy of the data obtained. (Ex., measuring in the subsurface via probes is more useful for tracking subsurface gas migration than taking measurements at the surface).

Why are the surface water monitoring regulations being updated?

- Surface water monitoring is important for many facilities in Alaska to ensure that contaminates are not escaping the landfill and entering Alaska waters. The current surface water monitoring regulations (18 AAC 60.810) were written and implemented in 1998 when there were no state or federal standards for surface water monitoring. Since surface water monitoring was not addressed in the federal regulations the state chose to apply groundwater requirements to surface water. The choice has proved to be incorrect because we have learned through experience that applying groundwater requirements to surface water monitoring creates problems that aren't easily or readily resolved. In recent years, the Solid Waste Program has created and is applying requirements specific to surface water monitoring, but these are not referenced or stipulated in the regulations. The proposed regulations allow us to

codify the current practice and outline how surface water monitoring should be conducted using current technology and practices.

Why are the groundwater monitoring regulations being updated?

- The proposed changes for groundwater monitoring are primarily a reorganization of the current regulations to eliminate redundancy and improve the focus of each section which will result in easier and greater compliance.
- The department also proposes to adopt the Unified Guidance on Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities (Unified Guidance), which is a federal document created in 2009 by EPA, in support of the federal regulations. This will result in consistency with our federal partners and clearer guidance for our regulated community.

Why is Table F being eliminated?

- The department is proposing to eliminate Table F (see below) in 18 AAC 60.840 which lists additional constituents that the department will, in its discretion, require the owner or operator to test for. The department intends to replace it with new discretionary language that will allow the department to specify constituents, as necessary, based on site-specific conditions and type of waste disposed in the facility and would allow the department to add emerging constituents if needed.

TABLE F
OPTIONAL MONITORING CONSTITUENTS AND PARAMETERS

Acidity	Dioxin	Potassium
Alkalinity	Dissolved Oxygen	Purgeable Aromatics
Ammonia Nitrogen	Gasoline Range Petroleum	Purgeable Hydrocarbons
Biochemical Oxygen Demand	Hydrocarbons	Redox Potential at collection
Biocides	Iron	Sheen
Calcium	Magnesium	Sodium
Chemical Oxygen Demand	Manganese	Sulphate
Chlorides	Mercury	Temperature at collection
Conductivity at collection	Methylene Blue Active Substances	Total Range Petroleum Hydrocarbons
Copper	Nitrate Nitrogen	Total Kjeldahl Nitrogen
Cyanide	Polychlorinated Biphenyls (PCBs)	Total Dissolved Solids
Diesel Range Petroleum	Pesticides	Turbidity
Hydrocarbons	pH	Zinc