

NC DIVISION OF WASTE MANAGEMENT – SOLID WASTE SECTION

Leachate Release Sampling & Analysis Guidelines

(For MSW Landfills & Other Solid Waste Facilities)

In accordance with General Requirements for MSWLF Facilities in [15A NCAC 13B .1604\(b\)\(2\)\(M\)](#), a facility shall notify the [NC Solid Waste Section](#) (Section) within 24 hours of any release or discharge outside the liner, collection system or other containment compound. *NOTE: This guidance may also be applied to any permitted solid waste management facilities with suspected or known leachate releases.*

After the initial notification to the Section, the facility shall comply with the following:

1. **Sampling Plan.** Submit a Sampling Plan for **Section approval prior to sampling**. The proposed plan shall be submitted in electronic format sent via email and meet the following requirements:
 - Include a description of the release incident (source, dates, size of known impact, etc.).
 - Include a map/aerial photo depicting area of impact and proposed sampling locations.
 - Provide a description of the proposed sampling methodology.
 - Describe the proposed subsurface soil sampling and surface water sampling (if applicable) at specific locations, including background soil and upstream water locations. The sampling plan must fully evaluate the extent of the potential environmental impacts from the release(s) at the facility and include, at a minimum, the following sampling requirements:
 - i. subsurface soil samples shall be collected between one to two feet below ground surface,
 - ii. discrete soil samples shall be collected (composite samples will not be accepted), and
 - iii. all soil and surface water samples shall be analyzed by a NC certified laboratory for 40 CFR Part 258 Appendix I parameters (VOCs and Total Metals), 1,4-dioxane, total phosphorus, sulfate, nitrate, and pH. **See Note below concerning when SPLP analysis would be required.*
2. **Implementation.** After Section approval, **the plan shall be implemented within seven (7) days.**
3. **Reporting.** Within **10 business days** after receiving the analytical results from the laboratory, submit a report & documentation regarding the sampling event which shall include the following:
 - A summary of the leachate release, actions taken to address the release (including any soil removal), and the release assessment.
 - A map/aerial photo depicting the release area and sampling locations.
 - A table of site background sample(s) analytical results.
 - A table of the surface water analytical results compared to the surface water quality standards and protective values contained in the most current NCDEQ *Surface Water Quality Standards Table* - download available on the [NCDWR Surface Water Standards webpage](#).
 - A table of the subsurface soil analytical results compared to the most current [NCDEQ Preliminary Soil Remediation Goals \(PSRGs\)](#). Both the Residential Health Based *and* the Protection of Groundwater PSRGs must be met*.
 - The associated laboratory reports from the NC-certified laboratory, including the chain of custody and QA/QC results.
 - The sampling methodology, if different from the proposed plan.
 - Conclusions and recommendations.

**NOTE for Soils: If any tested parameter is found to exceed only the Protection of Groundwater PSRG, then that soil sample should be analyzed for the exceeded parameter in question by the Synthetic Precipitation Leaching Procedure (SPLP) test method (SW-846 Method 1312). The resulting SPLP value is then compared to the respective [Groundwater Standards \(15A NCAC 02L.0202\)](#) for verification of compliance.*