



## Ohio Administrative Code

### Rule 3745-599-60 Approved sampling and characterization procedures for the beneficial use of a beneficial use byproduct.

Effective: February 11, 2024

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[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, and test methods referenced in this rule, see rule 3745-599-03 of the Administrative Code titled "Beneficial use - incorporation by reference."]

(A) A characterization required by a permit issued pursuant to this chapter shall be conducted in accordance with the permit.

(B) A characterization required by this chapter to determine whether a beneficial use byproduct can be beneficially used shall be conducted in accordance with one or a combination of the following applicable methods or other methods deemed acceptable by the director:

(1) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)," including the following:

(a) Method 1311, "Toxicity Characteristic Leaching Procedure."

(b) Method 1312, "Synthetic Precipitation Leaching Procedure."

(c) Method 1313, "Liquid-Solid Partitioning as a Function of Extract pH Using a Parallel Batch Extraction Procedure."

(d) Method 1314, "Liquid-Solid Partitioning as a Function of Liquid-Solid Ratio for Constituents in Solid Materials Using an Up-Flow Percolation Column Procedure."

(e) Method 1315, "Mass Transfer Rates of Constituents in Monolithic or Compacted Granular Materials Using a Semi-Dynamic Tank Leaching Procedure."

(f) Method 1316, "Liquid-Solid Partitioning as a Function of Liquid-Solid Ratio Using a Parallel



Batch Extraction Procedure."

(g) Method 3050B, "Acid Digestion of Sediments, Sludges, and Soils."

(h) Method 3500C "Organic Extraction and Sample Preparation."

(i) Method 6010D, "Inductively Coupled Plasma-Optical Emission Spectrometry."

(j) Method 7000B or 7010, "Flame Atomic Absorption Spectrophotometry," or "Graphite Furnace Atomic Absorption Spectrophotometry."

(k) Method 8081B, "Organochlorine Pesticides by Gas Chromatography."

(l) Method 8082A, "Polychlorinated Biphenyls (PCBs) by Gas Chromatography Guidance."

(m) Method 8260D, "Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS)."

(n) Method 8270E, "Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)."

(o) Method 9095B, "Paint Filter Liquids Test."

(2) Methods described in the following publications:

(a) ASTM D698, "Standard Test Methods for Laboratory Compaction of Soil Standard Effort."

(b) ASTM D2487, "Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)."

(c) ASTM D4318, "Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils."



- (d) ASTM D5907, "Standard Test Methods for Filterable Matter (Total Dissolved Solids) and Nonfilterable Matter (Total Suspended Solids) in Water."
  - (e) ASTM D6913, "Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis."
  - (f) "Methods for Chemical Analysis of Water and Wastes (EPA 600/4-79/020)."
  - (g) "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, (EPA-821-R-02-012)."
  - (h) American Public Health Association, American Water Works Association, and Water Environment Federation "Standard Methods for the Examination of Water and Wastewater."
  - (i) United states environmental protection agency method 350.1, "Determination of Ammonia Nitrogen by Semi-Automated Colorimetry."
  - (j) United states environmental protection agency method 351.2, "Determination of Total Kjeldahl Nitrogen by Semi-Automated Colorimetry."
  - (k) United states environmental protection agency method 353.2, "Determination of Nitrate-Nitrite Nitrogen by Automated Colorimetry."
  - (l) United states environmental protection agency method 365.3, "Phosphorous, All Forms (Colorimetric, Ascorbic Acid, Two Reagent)."
  - (m) Ohio state university, "Standard Operating Procedure Mehlich 3," Version 13.
- (3) Other United States environmental protection agency methods or other methods that demonstrate to the satisfaction of the director that the results of the analysis adequately represent constituent concentrations in the beneficial use byproduct.