



Use of Generator Knowledge in Complying with OAC rule 3745-52-11 Hazardous Waste Evaluation

THIS POLICY DOES NOT HAVE THE FORCE OF LAW

Hazardous Waste Program

This document will assist generators in your hazardous waste evaluation by clarifying some types of information and sources of documentation you can consider and document when relying upon generator knowledge in determining if a waste is hazardous. This guidance is not intended to include your waste evaluation obligations under the Land Disposal Restrictions (LDR) contained in Ohio Administrative Code (OAC) chapter 3745-270, or the types and sources of information necessary to make a LDR determination.

What Are the Background Issues with this Guidance?

As a generator of a waste (as defined in OAC rule [3745-51-02](#)) you are required by OAC rule [3745-52-11](#) to evaluate your waste to determine if it is a hazardous waste by using the following sequence:

- Determine if the waste is excluded from regulation by OAC rule [3745-51-04](#).
- Determine if the waste is a listed hazardous waste pursuant to OAC rules [3745-51-30 to 3745-51-35](#).
- If neither excluded or listed, determine if the waste exhibits a hazardous characteristic as identified in OAC rules [3745-51-21 to 3745-51-24](#) by:
 - Testing the waste according to test methods set forth in OAC rules [3745-51-21 to 3745-51-24](#); or
 - Applying knowledge of the hazardous characteristic(s) of the waste in light of the materials or the processes used. This waste evaluation method is often referred to as “generator knowledge.”

OAC rule [3745-52-11](#) does not specify the types or sources of information you must consider, maintain and produce if you choose to use generator knowledge to determine if the waste is a hazardous waste. Furthermore, U.S. EPA has not, to date, developed formal guidance describing what information should be used by the generator to make a hazardous waste determination.

What are the Two Waste Evaluation Methods?

As stated above, you can use one of two waste evaluation methods, or combinations of the methods, to satisfy the requirements of OAC rule [3745-52-11](#). The waste evaluation methods are laboratory analysis of a representative waste sample and generator knowledge (i.e., evaluating the materials and/or processes).

Using the first method, you conduct representative sampling as defined in OAC rule [3745-50-10\(A\)](#) and Appendix I of OAC rule [3745-51-20](#), and laboratory analysis as described in Appendix II of OAC rule [3745-51-20](#), to meet the waste evaluation requirement. Properly performed valid analytical data provides the least disputable information regarding the concentration levels of hazardous constituents in the waste and other characteristics of the waste when the waste sampling and analysis are done appropriately.

Generator Knowledge

The waste evaluation methods of generator knowledge and sampling/laboratory analysis can also be used in combination. For example, you can use the generator knowledge approach to determine what hazardous characteristics could not be exhibited by the waste. Once you determine which hazardous waste characteristics the waste could not exhibit, the generator could sample and analyze the waste for the hazardous characteristic(s) that could be present.

What are the Types and Sources of Information I can Use as Generator Knowledge to Make a Hazardous Waste Determination?

If you use knowledge to make a hazardous waste determination, you must maintain the types and sources of information that you used to substantiate a waste evaluation that is based on generator knowledge. You may use some or all of the information listed below or may use additional types of information to make the waste evaluation required under OAC rule [3745-52-11](#). The items listed represent the more common and readily available types of information, including:

- 1) Facility specific process flow diagram or narrative description of the process generating the waste (should be used in most cases);
- 2) Chemical makeup of all ingredients or materials used in the process that generates the waste (should be used in most cases);
- 3) List of constituents that you know or have reason to believe are byproducts or side reactions to the process that produces the waste;
- 4) Material Safety Data sheets (MSDSs) and/or product labels or substances used in the process that generates the waste; [**Note:** Concerning MSDSs, manufacturers/suppliers are not always required to list all constituents a material may contain. This level of reporting may not be adequate to ascertain the constituent levels in the wastes to be characterized. Therefore, MSDSs should be viewed in a supporting fashion and not as the sole means of providing generator knowledge.]
- 5) Data obtained from approved methods of sampling and laboratory analysis of waste generated from the same process using the same ingredients/materials;
- 6) Data obtained from literature regarding waste produced from a similar process using the same ingredients and/or materials; and/or
- 7) Documentation of product specifications of input materials and output products

What Documents are You Required to Retain?

OAC rule [3745-52-40\(C\)](#) requires you to retain records and documentation of waste evaluation(s) for a period of three years from the date that the waste was last sent to an on-site or off-site treatment, storage, or disposal facility. Retention of such documentation will facilitate compliance with Ohio EPA requests for waste evaluation results. While you do not need to have the information compiled in one file, it should be readily accessible upon request.

Whether a waste evaluation is based on sampling/analysis or generator knowledge, you must perform an accurate waste evaluation. Ohio EPA's position is that generators' determinations that their waste is not hazardous or determinations made without adequate basis, are subject to enforcement action if the waste is later determined to be hazardous.

Generator Knowledge

What if my Inspector has Concerns that the Use of Generator Knowledge is Inaccurate or Inadequate?

If your inspector has concerns that the use of generator knowledge is inaccurate or inadequate, he or she will communicate these concerns to you. Subsequently, the inspector may ask to sample your waste, have you conduct laboratory analysis on a representative sample of the waste or provide more information regarding the waste generation process.

Contact

For more information, contact the Hazardous Waste Compliance and Inspection Support Unit of the *Division of Environmental Response and Revitalization* at 614-644-2924.

References

OAC rule *3745-50-10*

OAC rule *3745-52-11*

OAC rule *3745-52-40*

Federal Register, Vol 60, No. 245; *Dec. 21, 1995*

Federal Register, Vol 62, No. 224; *Nov. 20, 1997*

US EPA, *RCRA Orientation Manual*, Chapter III, May 1998

US EPA, *Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Waste*; OSWER Directive #9938.4-03, April 1994