

levels of the CoCs in your wastes are below the regulatory levels, then we are proposing that you keep the following records onsite for three years to support your § 261.32(d)(2) nonhazardous determination:

- The actual quantity of dyes and/or pigments nonwastewaters generated.
- The process knowledge information that was used.
- The calculations performed to determine mass and annual running total mass levels for each CoC in the waste during the year based on process knowledge information that was used to support a nonhazardous determination.

We discuss the consequences of failing to keep records below in section E.

5. Section 261.32(d)(3) Demonstrations for Waste Quantities Greater Than 1,000 MT/yr

If the annual volume of your potential K181 nonwastewaters is greater than 1,000 MT/yr and you wish to demonstrate that your wastes do not exceed any of the relevant mass-based loading thresholds, we are proposing that you must test your wastes. You may not use knowledge of the wastes to determine the levels of the CoCs in your wastes. For those wastes that you must test, we are proposing that you use the following procedures:

- Determine which K181 constituents are reasonably expected to be present in your waste.
- Develop a waste sampling and analysis plan (SAP) (if you do not already have one that is appropriate) to collect and analyze representative samples of your wastes for those constituents.
- Collect and analyze an appropriate number of representative samples of your wastes in accordance with your waste SAP.
- Record the actual quantity of wastes that is represented by your sampling and analysis results.
- Calculate CoC-specific mass loadings (multiply the CoC concentration by waste quantity).
- Determine whether the annual running total mass (year-to-date mass loadings) for CoCs, including mass totals from earlier in the year, are below the K181 listing mass levels.
- Keep your records onsite for three years.
- Conduct your determination each calendar year to verify that the wastes remain nonhazardous.

Each of these steps is described further below.

Identify Target Constituents: Using knowledge of your wastes, you would need to identify which of the K181

constituents are potentially present in your wastes (proposed § 261.32(d)(3)(i)). If you can use your knowledge to demonstrate that any of the § 261.32(c)(1) or (c)(2) constituents would not or could not be present in your waste, you would not be required to conduct any waste analysis for those constituents. Your “knowledge” might include previous waste analyses (conducted for a different purpose), information about raw materials used at your facility, production processes in use, and reaction or degradation products potentially formed in your process or waste handling.

Waste Sampling and Analysis Plan: You must develop a sampling and analysis plan to characterize the levels of the K181 constituents that may be present in your wastes. Your SAP must consider any expected temporal or spatial fluctuations in CoC concentrations. Your sample design must be described in the SAP. The sample design and the sensitivity of the analytical methods used must be sufficient to determine whether the mass levels of the CoCs in your wastes (based on the quantity of wastes you generate annually and concentrations of the CoCs in your wastes) are above or below the mass loading-based levels for these constituents.

Conduct Sampling and Analysis: Following your SAP, you then would collect the appropriate number of samples, and conduct the planned waste analysis. Note that we are not proposing a required number of samples that you would need to collect annually to obtain representative data for your wastes. When you determine the appropriate number of samples to be collected, you must consider facts such as the variability of the wastes you generate during the course of the year.

We are not proposing mandated use of grab or composite sampling to obtain samples that are representative of your wastes. However, it would be your responsibility to ensure that your sampling and analysis is unbiased, precise, and representative of your wastes and to provide documentation of this representativeness in your SAP.

Similarly, we are not mandating the use of specific analytical methods, so long as you can demonstrate that the selected methods have the appropriate sensitivity, bias, and precision to determine the presence or absence of the constituents of concern at or below K181 mass loading levels. Specifically, we are not proposing to require the use

of SW-846⁶⁰ methods to comply with these requirements. However, you would be required to document the: (1) Detailed standard operating procedures (SOPs) for the sampling and analysis protocols that you used; (2) sensitivity and bias of the measurement process; (3) precision of the analytical results for each batch of waste tested; and (4) analytical results.

We would consider the analytical results adequate to support your demonstration if you show, using spiked samples for the CoCs, that those constituents can be measured at concentrations corresponding to the regulatory levels in your wastes, within the analytical method performance limits (e.g., sensitivity, bias, and precision). You might establish this target concentration for your spiked sample analysis by dividing the K181 listing level by your projected annual waste quantity. To determine the performance limits for a method, we recommend following quality control (QC) guidance provided in Chapters One and Two of SW-846. Your method performance data should be retained onsite with your analytical results as described below.

Calculate Mass Loadings: We are proposing that you must record your analytical results (§ 261.32(d)(3)(iv)), record the quantity of your wastes associated with those results (§ 261.32(d)(3)(v)), and calculate the corresponding constituent-specific mass loadings (product of constituent concentration and waste quantity) (§ 261.32(d)(3)(vi)).

Following sampling and analysis, you must calculate the mass of each constituent of concern in your wastes and keep a running total of the mass of each CoC throughout the year. In addition, you should also calculate mass loading levels for the CoCs in your waste and keep a running total of the mass of each CoC prior to disposal of any quantity of your waste during the year. The mass of a CoC depends on both the quantity of waste and the concentration of the constituent in the waste. For example, 1,000 metric tons (1 million kilograms) of waste that contains a constituent at a concentration of 1 mg/kg will have 1 million milligrams (or 1 kilogram) of that constituent. During the year, the dyes and/or pigments nonwastewaters that are generated may contain different concentrations of a constituent. In this case, the mass of a constituent in a fixed quantity of waste will also go up or

⁶⁰EPA Publication SW-846, “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.”