

§ 761.348

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and sufficient length to measure the depth of the waste in the pile at any point.

(B) Take the measuring device, constructed according to paragraph (c)(3)(iii)(A) of this section, and at position *s*, push the end of the device marked with zero straight down into the pile until it reaches the bottom of the pile or ground level. The vertical distance “*v*” is the number of centimeters from the surface of the pile at point *s* on the string to the bottom of the pile or ground level. Read the distance *v* on the measuring device at the surface of the pile. From the distance *v*, determine *t*, in one of two ways:

(1) Randomly generate a fraction of one and multiply the fraction times *v*.

(2) Select a random number between zero and the total number of centimeters of the vertical distance *v*.

(iv) Dig a hole straight down into the pile for *t* centimeters (inches) from the surface of the pile at *s*.

(v) At depth *t*, directly under the *s* mark on the string, outline the top of the sample container and collect (shovel) all waste under the outline in the following order of preference in paragraphs (c)(3)(v)(A) through (c)(3)(v)(C) of this section. It is possible that some of the eight sampling locations will not provide 19 liters of sample.

(A) For a depth of 30 cm.

(B) Until the container is full.

(C) Until the ground level is reached.

(d) *Compositing the samples.* Composite the eight 19-liter samples and subsample in accordance with § 761.350. Send the subsample to a laboratory for further sampling as described in §§ 761.353 and 761.355 and for chemical extraction and analysis. If there is insufficient sample for a 19-liter sample from the composite sample composed of the eight iterations of sample site selection, according to the procedures in paragraphs (c)(3)(i) through (c)(3)(v) of this section, select additional sample sites, collect additional samples and composite the additional waste in the samples until a minimum of 19 liters is in the composite.

[63 FR 35469, June 29, 1998, as amended at 64 FR 33762, June 24, 1999]

§ 761.348 Contemporaneous sampling.

Contemporaneous sampling is possible when there is active generation of waste and it is possible to sample the waste stream as it is generated. Collect eight 19-liter samples as follows.

(a) Collect each sample by filling a 19-liter (5 gallon) container at a location where the PCB bulk product waste is released from the waste generator onto a pile or into a receptacle container before the waste reaches the pile or receptacle container.

(b) Determine a sample collection start time using a random number generator or a random number table to select a number between 1 and 60. Collect the first sample at the randomly selected time in minutes after start up of the waste output, or if the waste is currently being generated, after the random time is selected. For example, if the randomly selected time is 35, begin collection 35 minutes after the start up of waste generation. Similarly, if waste output is ongoing and the random start determination occurred at 8:35 a.m., collect the first sample at 9:10 a.m. (35 minutes after the random start determination).

(c) Collect seven more samples, one every 60 minutes after the initial sample is collected. If the waste output process stops, stop the 60-minute interval time clock. When the process restarts, restart the 60-minute interval time clock and complete the incomplete 60-minute interval.

(d) Composite the eight 19-liter samples and subsample in accordance with § 761.350.

§ 761.350 Subsampling from composite samples.

(a) *Preparing the composite.* Composite the samples (eight from a flattened pile; eight or more from a conical pile; eight from waste that is continuously generated) and select a 19-liter subsample for shipment to the chemical extraction and analysis laboratory for further subsampling. There are two options for the preparation of the composite:

(1) *Option one.* Place all of the contents of all 19-liter samples that you collected into a 209 liter (55 gallon) drum or similar sized, cylinder-shaped

container. Completely close the container, and roll it 10 or more complete revolutions to mix the contents.

(2) *Option two.* Add the 19-liter samples one at a time to a 209 liter (55 gallon) drum. Between the addition of each 19-liter sample, stir the composite using a broom handle or similar long, narrow, sturdy rod that reaches the bottom of the container. Stir the mixture for a minimum of 10 complete revolutions of the stirring instrument around the container at a distance approximately half way between the outside and center of the container.

(b) *Selecting a 19-liter subsample from the composite.* Once the composite is mixed, pour the mixture of waste out on a plastic sheet and either divide it into 19-liter size piles or make one large pile.

(1) From 19-liter sized piles, use a random number generator or random number table to select one of the piles.

(2) From one large pile, flatten the pile to a depth of 30 cm and divide it into 4 quarters of equal size. Use a random number generator or random number table to select one quarter of the pile. Further divide the selected quarter pile into 19-liter portions and use a random number generator or random number table to select one 19-liter portion. A square having a 25 cm side or a circle having a diameter of approximately 28.5 cm when projected downwards 30 cm equals approximately 19 liters.

(c) *Transferring the sample to the analytical laboratory.* Place the selected 19-liter subsample in a container, approved for shipment of the sample, to the chemical extraction and analysis laboratory, for the next step in sample selection in accordance with § 761.353.

§ 761.353 Second level of sample selection.

The second level of sample selection reduces the size of the 19-liter subsample that was collected according to either § 761.347 or § 761.348 and subsampled according to § 761.350. The purpose of the sample size reduction is to limit the amount of time required to manually cut up larger particles of the waste to pass through a 9.5 millimeter (mm) screen.

(a) *Selecting a portion of the subsample for particle size reduction.* At the chemical extraction and analysis laboratory, pour the 19-liter subsample onto a plastic sheet or into a pan and divide the subsample into quarters. Use a random number generator or random number table to select one of these quarters.

(b) *Reduction of the particle size by the use of a 9.5 mm screen.* Collect the contents of the selected quarter of waste resulting from conducting the procedures in paragraph (a) of this section and shake the waste in a 9.5 mm screen. Separate the waste material which passes through the screen from the waste material which does not pass through the screen. Manually cut or otherwise reduce the size of all parts of the waste portion which did not pass through the 9.5 mm screen, such that each part of the waste shall pass through the 9.5 mm screen by shaking.

(c) *Drying the reduced particle size waste.* Dry all of the waste portion resulting from conducting the procedures in paragraph (b) of this section, from 10 to 15 hours in a drying oven at 100 °C. Allow the dried waste to cool to room temperature.

(d) *Mixing the dried waste.* Place all of the waste resulting from conducting the procedures in paragraph (c) of this section in a 19-liter pail or similarly sized, cylinder-shaped container. Mix the dried material according to one of the two following options:

(1) *First mixing option.* Completely close the container and roll the container a minimum of 10 complete revolutions to mix the contents.

(2) *Second mixing option.* Use a sturdy stirring rod, such as a broom handle or other device that reaches the bottom of the container, to stir the waste for a minimum of 10 complete revolutions around the container at a distance approximately half way between the outside and the center of the container.

§ 761.355 Third level of sample selection.

The third level of sample selection further reduces the size of the subsample to 100 grams which is suitable for the chemical extraction and analysis procedure.