



AGGREGATE RECYCLING CORPORATION

SOLID WASTE CHARACTERIZATION SAMPLING PLAN

This document is to be utilized as a reference for collecting representative samples of material proposed for acceptance by Aggregate Recycling Corporation in accordance with the terms and conditions set forth in its Department of Environmental Protection licenses. Its intent is to assure the accuracy and integrity of analytical data submitted in accordance with the waste characterization requirements of its facility.

Soil Sampling

The physical properties of the soil, its grain size, cohesiveness, associated moisture, and such factors as depth to bedrock and water table will limit the depth from which samples can be taken and the method required to collect them. Sampling devices have different limitations associated with them. Please understand these prior to sampling.

Samples of soil shall be taken so that the soil can be accurately defined in terms of any contaminants. This can be accomplished through the guidance provided in 40 CFR 261, Appendix I, through a grid pattern established by the sampler, through line intercepts, through the point quarter method or similar recognized methods. Adherence to the protocols of USEPA SW-846 is required. These samples should avoid taking the uppermost layer of soil and must take into account the age of the soils to be sampled and the analytical parameters to be analyzed. For instance, if a soil stockpile has been exposed to atmospheric conditions for a period of time, the top foot or more of soil may not be representative of the rest of the soil stockpile.

Stockpile Sampling

Since soil piles can have varying levels of contaminants, it is very important to accurately define the materials in the pile. Stockpiles should generally have a number of subsamples taken from different areas of the stockpile which are then composited by the technique for compositing detailed below. It is suggested that 1 equal-sized subsample be composited for every 20 cubic yards in the stockpile. After scraping away the outer layer, a scoop of underlying soil should be taken and placed into the appropriate sample container. All stockpiles must be sampled at varying depths.

P.O. Box 363 • Eliot, ME 03903
Phone 207-439-5584 • N.E. 800-639-7303 • Fax 207-439-5586

For smaller stockpiles, subsamples should be taken for every 20 cubic yards of material. Samples should be taken on straight transects from 5 locations at approximate mid-depth of the stockpile. The center of the pile should be used as the initial sampling location. The stockpile should then be sampled halfway from the center to the edge on both sides. This process should be repeated at a right angle from this line. These subsamples represent the composite of the stockpile, and are to be composited as specified below.

For larger stockpiles, subsamples should be taken for every 20 cubic yards of material and composited to represent 100 cubic yards of material. The size of the stockpile should be estimated by the sampler. Subsequently, a grid pattern consisting of equal sized squares representing 100 cubic yards should be established. The center of the pile should be used as the initial sampling location. Samples should be taken from these grids on straight transects from 5 locations of the soil pile near the surface (1-2 feet deep), approximate mid-depth, and approximately 1 foot from the stockpile bottom. The stockpile should then be sampled halfway from the center to the edge on both sides. This process should be repeated at a right angle from this line. These subsamples represent the composite of the stockpile, and are to be composited as specified below.

Subsamples taken from the site for compositing should be as uniform in size as possible, placed into an appropriate container for mixing, and mixed thoroughly prior to placement into the sample container for laboratory analysis. The sample container and its accompanying chain-of-custody must state that the sample(s) is a composite. Sampling equipment shall be decontaminated between each sampling event.

Soil Boring Sampling

Soil boring samples shall be taken using a hand auger, a split-spoon sampler, a split-barrel sampler or similar device. Augers are very effective for soil sampling but allow the soil sample to mix during the procedure thereby destroying the soil cohesion, structure and stratigraphy. Bucket type augers can be used directly for soil sample collection or to advance a borehole to the desired depths so that a thin wall tube can be employed. Samples removed from the sampling device should be placed into a stainless steel, tempered glass or aluminum container and thoroughly mixed to obtain a homogeneous sample. Soil boring samples may also be sieved to promote sample homogeneity. Random portions of this sample shall be placed in sample container(s) and the container capped. The hole shall then be opened with an auger to the next sampling depth. The next sampling interval shall be collected in the same manner. This procedure shall be repeated until the maximum prescribed depth is reached.

The auger shall be cleaned between each boring location to prevent cross-contamination and the sampling equipment shall be decontaminated between each sampling event. Should samples collected contain non-soil debris (rocks, etc.), have too great a grain size for proper analysis, or should it be necessary to further promote sample homogeneity, a sieve may be employed in the field prior to laboratory extraction and analysis.