

# GSP 1

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## A. General Description

Use this procedure to sample Portland cement, fly ash, and slag.

Portland cement manufacturers and fly ash and granulated iron blast-furnace slag suppliers that furnish material to highway projects must comply with the Standard Operating Procedure for Quality Control of Portland Cement (SOP 5).

**NOTE: The [Office of Materials and Research](#) maintains a list of approved sources with the full name of each organization, the trade name of their product, and the location of their plants. For a list of Portland cement manufacturers, see [QPL 3](#). For a list of fly ash and slag suppliers, see [QPL 30](#).**

You may use Portland cement, fly ash, and slag provided you:

- a. Ensure the material is from an approved source.
- b. Examine the material and ensure that no damaged material is present.
- c. Do not use questionable material until the test results comply with the Specifications.

If you must take samples from tanker trucks and storage bins or railroad cars, take them from the top hatch.

- d. Take the sample from several feet below the surface with a post-hole digger, a scoop, a shovel, or a tube sampler.

**NOTE: Make sure the sampling tool is completely clean so that no foreign material is included in the sample. The sample size for Portland cement, fly ash and slag shall be no less than 10 pounds (4.5 kilograms).**

- e. Take samples from railroad cars from the outlet screw used to unload the car.
  - 1) Stop the screw.
  - 2) Remove the hatch.
  - 3) Use the scoop to get the sample.
- f. When taking samples from a ready-mix concrete plant, take representative samples from the individual portions and combine into one sample.
- g. Place samples directly in moisture-proof, air-tight containers.
- h. Seal the containers to prevent moisture absorption and aeration.
- i. Identify each sample on Form 170.
- j. Submit the sample directly to the [Office of Materials and Research](#).
- k. Record the test results of Portland cement on Form 175.
- l. The [Office of Materials and Research](#) maintains a file on chemical and physical analysis of all mill samples.