

ACCEPTANCE POLICY FOR GROUND GRANULATED BLAST FURNACE SLAG (GGBFS)

GENERAL:

These instructions cover the acceptance procedures for all ground granulated blast furnace slag (GGBFS) used in Portland cement concrete supplied for use in Nebraska State Highway construction and maintenance.

The State of Nebraska Standard Specifications, Supplemental Specifications, and Materials Sampling Guide for Highway Construction are a part of these instructions. The ground granulated blast furnace slag shall comply with the Special Provisions. This requirement includes all shipments by rail, truck, or barge supplied directly to contractors through small suppliers or ready mix plants.

CERTIFIED MILL ANALYSIS:

GGBFS producers are required to furnish the Materials and Research Division a copy of their certified mill analysis each time the ground granulated blast furnace slag produced may be shipped for use in a Nebraska Department of Roads (NDOR) project. The certified mill analysis report shall include:

- Name of the supplier
- Source
- Consignee and destination of the shipment
- Project number if available
- Date shipped
- Railroad car or truck identification number
- Weight of the shipment
- Certified test number representing the material being shipped
- Non-repeated order number or other identification number that will separately identify each shipment.

APPROVED PRODUCTS LIST:

The ground granulated blast furnace slag on the NDOR's Approved Products List can be used when received on the project and accompanied by a supplier's certification. The requirements for approval are:

1. Twenty consecutive passing samples. Each sample will represent plant production that exceeds 100 tons per day. The five pound sample will be collected at random locations within the days production. The GGBFS shall be sampled, tested in accordance with ASTM C-989 and tested at the NDOR central laboratory. The samples shall be obtained in a manner that will represent the entire production period.

APPROVED PRODUCTS LIST (CONT'D):

2. Approved sources must submit composite samples representing each month's production to the NDOR central laboratory. The ground granulated blast furnace slag shall be sampled and tested in accordance with ASTM C-989 (Standard Specification for GGBFS), Grade 120. Each sample shall consist of at least 5 pounds of ground granulated blast furnace slag.
3. If the monthly sample or any field sample is out of tolerance, the supplier shall be notified by the Pavement Cement Concrete Engineer. Shipments may not resume until the GGBFS is found to be in compliance with the specifications when tested by the NDOR central laboratory .
4. If a producer requires testing more often than once per month to maintain shipments, samples may be tested at a certified commercial laboratory, at the producer's expense, and the results sent to Materials and Research Division. The test results must be received by Materials and Research Division prior to shipment of the ground granulated blast furnace slag.

MILL SAMPLING PROCEDURE:

The sampling procedure requirement for the GGBFS is one 5-lb sample. The sample shall be taken on the first production day of each month for the grade produced. The sample will be a composite of that day's production. Each Sample will be shipped in a leak and moisture resistant container, and will be identified with the location and name of the production mill, ground granulated blast furnace slag grade produced, date produced, and storage bin number. The accompanying paperwork, including the mill analysis shall be for the sample being submitted to NDOR, will be placed in an enveloped to keep papers clean.

MILL SAMPLE SHIPPING:

The samples are to be shipped to the NDOR central laboratory at one of the addresses below. The producer will be responsible for the cost of shipping.

WHEN USING THE U.S POST SERVICE:

Portland Cement Concrete Laboratory
Nebraska Department of Roads
Materials and Research Division
P.O Box 94759
Lincoln, Nebraska 68509-4759

WHEN USING UPS:

Portland Cement Concrete Laboratory
Nebraska Department of Roads
Materials and Research Division
1400 Nebraska Highway 2
Lincoln, Nebraska 68509-4759

CERTIFICATES OF COMPLIANCE:

Certificates of compliance shall be issued by the producing plants. Copies of the certificates must accompany each load from a terminal. The forms must include the following:

- Name and location of the producing mill
- Consignee and destination of the shipment
- Date shipped from the producing mill (not the date shipped from the terminal)
- Railroad car or truck identification number
- Grade of ground granulated blast furnace slag
- Quantity of ground granulated blast furnace slag shipped Certified test number, date, and bin or silo number

Each form for a truck shipment must include a non-repeated order number or identification number. The following signed certification statement or similar wording must also be included on the form.

This is to certify that this shipment of GGBFS was taken from the bin indicated and that it meets the specifications of the Nebraska Department of Roads.

Signed _____

For _____

The plant or terminal will send two shipment identification and certification of compliance forms with each shipment. The concrete producer will retain one copy of the certificate of compliance for their records and one will be collected by a state inspector if necessary.

Shipments of GGBFS may be randomly sampled by NDOR personnel, as directed by the Materials and Research Division, and tested at the central laboratory in Lincoln.