



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Memorandum

March 05, 2010

CONSTRUCTION MEMORANDUM 10-04

TO: District Deputy Commissioners
Technical Services Directors
District Construction Directors
District Testing Engineers
District Area Engineers
Project Engineers/Supervisors
Office of Materials Management

FROM: Mark A. Miller, Director *Ma Miller*
Division of Construction Management

SUBJECT: Chemical Soil Modification, Section 215
Testing and Mix Design
Adjustment of Materials

We have recently been made aware of issues with Standard Specification Section 215 that have arisen with regard to chemical modifier selection, mix design testing and payment for adjustment of the materials chosen. The specifications currently call for the Contractor to run tests and show that the other allowed modifiers do not work before changing to cement as the modifier and that when the change is made to use cement the invoice price for hydrated lime is used for the adjustment. We do not feel that the wording of these specifications is in the best interest of INDOT both in terms of time and cost.

Therefore, until Section 215 is revised by the Specification Committee, the following guidelines will be used for the selection of modifiers and adjustment of costs for future contracts. **Contracts with letting dates occurring before the date of this memo will be handled on a case by case basis.**

It is expected and in INDOT's best interest that Contractors bid to use the most economical lime product for soil modification and INDOT would expect that to be "lime kiln dust" at 5.0% by dry unit weight (mass) of soils in most cases, but could be any lime product allowed in section 215.

If it is found during the testing and mix design that lime kiln dust or the originally bid lime material will not work for the soil(s) on the project, it is acceptable for the Contractor to use cement as the modifier without having to run mix design testing on any other lime modifiers or Class C fly ash. The test results

and the geotechnical consultant recommendations shall be submitted to the Engineer and to the Office of Geotechnical Engineering for approval.

Based on this, the invoice price/price quote for any material allowed by Section 215 will be considered as the starting point in calculations for the material adjustment cost as long as the invoices/quotes are produced.

The price adjustment allowed in Section 215.11 will then be calculated at a cost equal to the difference in the invoice/quoted price of the cement required and the invoice/quoted price of the material the Contractor originally bid that would have been required based on using the whole number percent value as stated in 215.03, as long as the materials meet the requirements of Section 215 and as long as the invoices/quotes for the materials are produced.

Consideration should be given to the cost of the trucking of the product, as this could make a difference in the cost of the material.

No markups will be allowed.

The change of material and cost will be agreed upon between the Contractor and INDOT before the changes are made and a change order is prepared for Chemical Modifier Adjustment.

EXAMPLE:

The Contractor bid lime kiln dust to use for the special subgrade treatment 1A. 5% will be used for the calculations. This is the value given for this material in section 215.03 without regard for the +/- 1.0%.

It is found through testing that the lime kiln dust bid will not work for the soil on the project. The Contractor shall bring this to the attention of the PE/S so that the results can be reviewed and concurrence given. The Contractor does not have to test any further materials and can go right to preparing a mix design using cement.

Calculations will need to be made for the total amount of both the lime kiln dust that would have been required at 5% and for the total amount of cement required at the % given in the mix design prepared by the approved geotechnical consultant to modify the soil.

Both amounts of material will be multiplied by the submitted prices for the materials, and the total dollar amount for the lime kiln dust will be subtracted from the total cost for the cement.

The trucking costs will need to be reviewed to see if this needs to be taken into account.

The total cost increase will be paid for by change order under item 215-08666 "Chemical Modifier Adjustment" with a unit of "DOL".

MAM:GGP