

APPENDIX A
POLICY
STANDARD
OPERATING
PROCEDURE
PH-C-305

TESTING, APPROVAL
AND USE OF
MATERIALS

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STANDARD OPERATING PROCEDURE PH-C-305
September 21, 1992

Supersedes Standard Operating Procedure PH-C-305
Dated April 21, 1992

TO: ENGINEER OF CONSTRUCTION, ENGINEER OF TESTS, ADMINISTRATOR OF CONTRACT SALES, CHIEF FINANCIAL OFFICER, DISTRICT DEPUTY DIRECTORS, DISTRICT CONSTRUCTION ENGINEERS, DISTRICT TEST ENGINEERS

SUBJECT: TESTING, APPROVAL AND USE OF MATERIALS

A. PURPOSE

The purpose of this standard operating procedure is to establish a consistent method in the determination of value and disposition, of materials which fail to meet specification requirements but are inadvertently incorporated into highway construction projects administered by the Ohio Department of Transportation.

B. GENERAL POLICY

All materials incorporated into a construction project are required to meet all requirements of the applicable material specification prior to being incorporated into the work. The basis for approval shall be either sampling as listed in the applicable Construction and Materials Specification or, where field sampling is not feasible, the method of approval shall be as determined by the Engineer of Tests.

C. OPTIONS AVAILABLE WHEN MATERIAL IS FOUND TO BE DEFICIENT OR IN REASONABLE CONFORMITY AFTER INCORPORATION INTO THE PROJECT

1. If material that has been used, is later found to be deficient with respect to specification requirements and will not provide a satisfactory product, the Director may require it to be removed and replaced with approved material at the Contractor's expense in accordance with the third paragraph of Section 105.03 of the Construction and Material Specifications.
2. However, if the Director finds that the material in question is within reasonably close conformity with the plans and specifications and provides a satisfactory product, he may allow the material to remain in place

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with a documented appropriate adjustment in the contract price for that material in accordance with the second paragraph of Section 105.03 of the Construction and Material Specifications.

D. REPORT ON DISPOSITION, VALUE AND APPEAL

1. The Bureau of Testing shall prepare a test report for all materials. The test reports reflecting materials which fail to meet the applicable requirements of the plans, specifications or proposal shall be submitted to the District Deputy Director or his designee (District Construction Engineer) for the purposes of recommending whether the material shall be removed and replaced or whether it shall remain in place with an appropriate adjustment in the contract price.

If the recommendation is made that the material shall be removed and replaced, such recommendation shall be forwarded to the Director who will arrange for a site inspection by the Deputy Director, Division of Construction, or his designee. The final disposition of the material shall be as determined by the Director after the subject site inspection.

If the recommendation is made for the material to remain in place, the District Deputy Director or his designee shall determine the price adjustment in accordance with the following guidelines:

- a. For material deficiencies of common variety, use the appropriate attached appendix, or minimum non-conformance fee, whichever is greater.
- b. For material deficiencies which are less common with no applicable appendix, establish a fair market value (appropriate deduction) for the materials based on facts of usage in the project, or apply minimum non-conformance fee, whichever is greater.
- c. Minimum non-conformance fee of one hundred dollars (\$100.00) shall be applied to all deficient

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materials test reports, unless a higher appropriate deduction is established.

2. A copy of the test report along with the price adjustment shall be sent by the District Deputy Director or his designee, to the Contractor. Along with the test report and price adjustment, written notice must be given that the Contractor may appeal the price adjustment to the Central Office Review Committee within ten (10) calendar days of receipt of the test report and price adjustment. Request to file an appeal shall be forwarded to the District Deputy Director. Failure to file an appeal within the allotted time shall result in a waiver of the Contractor's right to appeal.

The testing, report writing and price adjustment shall all be done in an expeditious manner. Waiting until the project is completed is not acceptable.

E. MATERIAL COST AND PAYMENT

The Contractor shall furnish documentation of the unit cost of failed material within 14 days of a written request by the District or the Bid Price shall be used.

No payment for failed material shall be made until it is determined that it may remain in place and the appropriate pay adjustment is known.

F. CHANGE ORDER AND REVIEW COMMITTEE

After the report has been completed and copies distributed, and after the Contractor's appeal time has elapsed and no appeal has been submitted, the District shall process a change order reflecting use of material which has failed to meet the Department's plans and specifications but which has nonetheless been found to be within reasonable close conformity to the plans and specifications. The District shall include the appropriate adjustment in the contract price for that material.

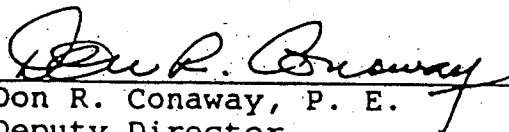
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In the event the District is unable to arrive at an appropriate adjustment to the contract price for the non-conforming material, or the Contractor appeals the price adjustment, the District report shall be immediately referred to the Central Office Review Committee with all data and analysis compiled and performed by the District.

The Committee shall be comprised of the Deputy Director of Construction (Chairperson), the Engineer of Construction and the Engineer of Testing. The Deputy Director may designate an alternate to chair the Committee in his absence. In their review and resolution the Committee may, at its discretion, rely on internal or external expertise, and shall meet on an as needed basis as scheduled by the Chairperson.

The Central Office Review Committee decisions will be returned to the respective District for final processing.



Don R. Conaway, P. E.
Deputy Director
Division of Construction

REVISD BY: DIVISION OF CONSTRUCTION

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APPENDIX A

QUALITY REQUIREMENT FAILURES:

REDUCED STRENGTH: Material Price x (1 - actual strength/
required strength)

REDUCED COATING THICKNESS: Material Price x (1 - actual
thickness/required thickness)

The unit bid price must be adjusted for all materials,
only which do not meet the chemical composition or other
quality requirements of the contract.

304, 310, and SELECT DRAINAGE BACKFILL:

When P200 material of in place samples, after compaction,
exceeds the specification limits, the appropriate adjustment
is to deduct the cost of the materials only and is not
restricted to backfill materials alone.

When materials do not meet gradation requirements other
than the 200 sieve and the material is permitted to remain
in place, the price adjustment shall be equal to or greater
than the minimum non-conformance fee.

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APPENDIX B

If asphalt materials are outside the specification limit for high bitumen (as tested by state inspectors), or outside specification limits for high/low F/A ratio (as tested by contractors' quality control), then the minimum non-conformance fee shall be assessed if the contractor makes adjustments immediately to bring the materials into the specifications.

If the asphalt materials continue outside the specification limits then the following appropriate calculations shall be used.

Calculation of Deduction
For
High Bitumen Content
(301, 404, 403, 402, 412)

Review performance to determine if material can remain in place or remove and replace. If left in place then pay adjustments are calculated as 5% of the non-conforming material price.

Calculation of Deduction
For
High/Low Air Voids
(446, 448)

If contractor is in non-conformance for high/low air voids, then pay adjustments are calculated as 5% of the non-conforming material price.

Calculation of Deduction
For
High/Low F/A Ratio
(446, 448)

If contractor is in non-conformance for F/A ratio, then pay adjustments are calculated as 5% of the non-conforming material price.

APPENDIX C

Calculation of Deduction
For
Excess Water (Moisture)
In Liquid Materials

Project Information

Project No. _____ Reference No. _____
Item No. _____ Material Price \$ _____ (B)
Maximum Water _____ % Actual Water _____ %
(D) (E)

Calculate Excess Water (Moisture)

$$= \frac{\quad}{(E)} \% - \frac{\quad}{(D)} \% = \frac{\quad}{(F)} \%$$

Total Deduction Based On Not Paying For Excess Water (Moisture)

$$= \frac{\quad}{(F)} \% \times \$ \frac{\quad}{(B)} \times 0.01$$
$$= \$ \underline{\quad}$$

Calculated By _____ Date _____

APPENDIX D

Calculation of Deduction
for
Low Bitumen Content
(301, 404, 403, 402, 412)

Project Information

gjn Project No. _____ Reference No. _____

Item No. _____ Quantity _____ Tons
(A)

Asphalt Materials Price \$ _____ /C.Y. _____ C.Y.
(B) (C)

Month/Year Placed _____ Placing Index \$ _____ /Ton
(ip)

Required Bitumen _____ % Actual Bitumen _____ %
(D) (E)

Calculate Deficient Bitumen

$$= \frac{\text{_____}}{(D)} \% - \frac{\text{_____}}{(E)} \% = \frac{\text{_____}}{(F)} \%$$

Deduction for Cost of Bitumen

$$\frac{\text{_____}}{(A)} \text{ tons} \times \left(\frac{\text{_____}}{(F)} \% - 0.5 \% \right) \times \frac{\text{_____}}{(ip)} \text{ /Ton}$$

$$= \frac{\text{_____}}{(C)} \text{ C.Y.} \times 100$$

$$= \$ \frac{\text{_____}}{(X)} \text{ /C.Y.}$$

Deduction for Loss of Service Life

$$= \left(\frac{\text{_____}}{(F)} \% - 0.5 \% \right) \times \$ \frac{\text{_____}}{(B)} \text{ /C.Y.} \times 0.233$$

$$= \$ \frac{\text{_____}}{(Y)} \text{ /C.Y.}$$

Total Deduction

$$= \$ \frac{\text{_____}}{(X)} \text{ /C.Y.} + \$ \frac{\text{_____}}{(Y)} \text{ /C.Y.}$$

$$= \$ \frac{\text{_____}}{\text{_____}} \text{ /C.Y.}$$

Calculated By _____ Date _____

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APPENDIX E

Calculation of Deduction For Asphalt Concrete
With Bitumen Content Or Gradation
Outside Range Limitation
(301, 404, 403, 402, 412)

Project Information

Project No. _____ Reference No. _____

Item No. _____ Asphalt Material Price \$ _____ / (B)

Quantity _____ C.Y. *Fraction Out on Range _____ (C) (H)

Maximum Percent _____ % Minimum Percent _____ % (D) (E)

Calculate Range

$$= \frac{\quad}{(D)} \% - \frac{\quad}{(E)} \% = \frac{\quad}{(F)} \%$$

Total Deduction Based on Loss of Service Life

$$= \frac{\quad}{(B)} / \text{C.Y.} \times 0.05$$

$$= \$ \frac{\quad}{\quad} / \text{C.Y.}$$

Quantity of Asphalt Concrete to Apply Deduction

$$= \frac{\quad}{(C)} \text{C.Y.} \times \frac{\quad}{(H)}$$

$$= \frac{\quad}{\quad} \text{C.Y.}$$

(Any remaining quantity shall have no deduction)

Calculated By _____

Date _____

* Based on the number of tests outside the range limitation divided by the total tests performed.