

Approved:

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Responsible Office: Highway Management

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Director

ACCEPTANCE OF NONSPECIFICATION MATERIALS

POLICY STATEMENT

The purpose of this policy is to establish a consistent method in the determination of value and disposition of a material that fails to meet specification requirements, but is inadvertently incorporated into highway construction projects administered by the Department or highway maintenance work performed by the Department.

AUTHORITY

“Construction and Material Specifications.” Section 105.03

REFERENCES

The following attached document:

Appendix A Calculations for Common Material Deficiencies

SCOPE

This policy is for use by a District in determining the value and disposition of material that is not in reasonably close conformity with the plans and specifications after incorporation into a construction project or maintenance work.

BACKGROUND

This policy supersedes Standard Operating Procedure PH-C-305 (“Testing, Approval And Use of Materials”) dated September 21, 1992, a memorandum from the Division of Construction entitled “Process Control and SOP PH-C-305 dated November 9, 1992, and Standard Operating Procedure OPS-105 (“Testing, Approval And Use of Materials”) dated July 1, 1993.

DEFINITIONS

<u>C&MS:</u>	“Construction and Material Specifications”
<u>Contractor:</u>	Defined in C&MS Section 101.14.
<u>DCE:</u>	District Construction Engineer
<u>DHMA:</u>	District Highway Management Administrator
<u>Reasonably Close Conformity:</u>	Defined in C&MS Section 101.351.
<u>Vendor:</u>	Material producer or supplier who provides products used by the Department to perform highway maintenance work.

PROCEDURE STATEMENT

- I. All materials incorporated into a construction project or maintenance work are required to meet all requirements of the applicable material specification before being incorporated into the work. The basis for approval shall be either:
 - A. Sampling as listed in the applicable specification; or
 - B. Where field sampling is not feasible, the method of approval shall be as determined by the Administrator, Office of Materials Management.
- II. Options available when material is not in reasonably close conformity after incorporation into a construction project or maintenance work:
 - A. If material that has been used is later found not in reasonably close conformity with the plans and specifications and will not provide a satisfactory product, the District shall require it to be removed and replaced with approved material at the Contractor's or Vendor's expense in accordance with the third paragraph of C&MS Section 105.03.
 - B. If the District finds that the material in question is not in reasonably close conformity with the plans and specifications, but provides a satisfactory product, it may be allowed to remain in place with a documented appropriate adjustment in the contract price for that material in accordance with the second paragraph of C&MS Section 105.03.

III. Report on Disposition, Value, and Appeal of Nonspecification Materials Used on a Construction Project:

A. The District shall prepare a report for all materials that fail to meet the applicable requirements of the plans, specifications, or proposal. The District shall work with the Office of Materials Management in determining extra testing needs or verifying report contents when necessary or desired. The reports reflecting materials that fail to meet the applicable requirements of the plans, specifications, or proposal shall be submitted to the District Construction Engineer (DCE) for the purposes of determining whether the material shall be removed and replaced or whether it shall remain in place with an appropriate adjustment in the contract price.

1. The DCE may consult with Central Office in determining if the material should be removed and replaced.
2. If it is determined that the material can remain in place, the DCE shall determine the price adjustment in accordance with the following guidelines:
 - a. For material deficiencies of common variety, use the appropriate calculation from Appendix A or the minimum non-conformance fee stated in Section III.A.2.c of this policy, whichever is greater.
 - b. For material deficiencies that are less common and not covered in Appendix A, establish a fair market value (appropriate deduction) for the materials based on facts of usage in the construction project, or apply the minimum non-conformance fee stated in Section III.A.2.c of this policy, whichever is greater.
 - c. A minimum non-conformance fee of \$300.00 shall be applied to all deficient materials test reports, unless a higher appropriate deduction is established. If the total bid price for the quantity is less than \$300.00, then the minimum non-conformance fee shall be the total bid price.
 - d. If the DCE is unable to arrive at an appropriate adjustment to the contract price for the nonspecification material, the District report shall be forwarded to the Central Office Review Committee in accordance with Section V of this policy.
3. The Contractor shall furnish documentation of the material cost of the failed material within 14 days of a written request by the District or the bid price shall be used.

B. A copy of the test report along with the price adjustment shall be sent by the DCE to the

Contractor.

- C. Written notice must be given to the Contractor, who may appeal the price adjustment within 10 calendar days of receipt of the test report and price adjustment.
 - 1. If the Contractor appeals the price adjustment, the appeal shall be sent by the Contractor to the DCE.
 - 2. The DCE will forward the appeal to the Central Office Review Committee in accordance with Section V of this policy.
 - 3. Failure to file an appeal within the allotted time shall result in a waiver of the Contractor's right to appeal.

- D. 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 that has failed to meet the Department's plans and specifications, but that reasonably acceptable work has been produced. The District shall include the appropriate adjustment in the contract price for that material.

IV. Report on Disposition, Value, and Appeal of Nonspecification Materials Used for Maintenance Work:

- A. The District shall prepare a report for all materials that fail to meet the applicable requirements of the plans, specifications, or proposal. The District shall work with the Office of Materials Management in determining extra testing needs or verifying report contents when necessary or desired. The reports reflecting materials that fail to meet the applicable requirements of the plans, specifications, or proposal shall be submitted to the District Highway Management Administrator (DHMA) for the purposes of determining whether the material shall be removed and replaced or whether it shall remain in place with an appropriate adjustment in the material price.
 - 1. The DHMA may consult with Central Office in determining if the material should be removed and replaced.
 - 2. If it is determined that the material can remain in place, the DHMA shall determine the price adjustment in accordance with the following guidelines:
 - a. For material deficiencies of common variety, use the appropriate calculation from Appendix A.

- b. For material deficiencies that are less common and not covered in Appendix A, establish a fair market value (appropriate deduction) for the materials based on facts of usage in the maintenance work.
 - c. A minimum non-conformance fee of \$50.00 shall be applied to all deficient materials test reports, unless a higher appropriate deduction is established. If the total bid price for the quantity is less than \$50.00, then the minimum non-conformance fee shall be the total bid price.
 - c. If the DHMA is unable to arrive at an appropriate adjustment to the material price for the nonspecification material, the District report shall be forwarded to the Central Office Review Committee in accordance with Section V of this policy.
 - B. A copy of the test report, price adjustment, and documentation on the use of the material shall be sent by the DHMA to the Vendor.
 - C. Written notice must be given to the Vendor, who may appeal the price adjustment within 10 calendar days of receipt of the test report and price adjustment.
 - 1. If the Vendor appeals the price adjustment, the appeal shall be sent by the Vendor to the DHMA.
 - 2. The DHMA will forward the appeal to the Central Office Review Committee in accordance with Section V of this policy.
 - 3. Failure to file an appeal within the allotted time shall result in a waiver of the Vendor's right to appeal.
 - D. After the Vendor's appeal time has elapsed and no appeal has been submitted, the District shall process the payment for the material reflecting the use of material that has failed to meet the Department's plans and specifications, but that reasonably acceptable work has been produced. The District shall include the appropriate adjustment in the material price for that material.
- V. Central Office Review Committee
 - A. If the Contractor or Vendor appeals the price adjustment or the District is unable to arrive at an appropriate price adjustment for the nonspecification material, the District shall immediately forward a report to the Secretary of the Central Office Review Committee.

1. The Secretary of the Central Office Review Committee is appointed by the Chairperson of the Committee.
 2. The District report shall contain all data and analysis compiled and performed by the District and any report submitted by the Contractor or Vendor.
- B. The Central Office Review Committee shall consist of the:
1. Deputy Director, Division of Engineering Policy, Chairperson.
 2. Administrator, Office of Highway Management
 3. Administrator, Office of Materials Management
- C. In their review and resolution the Committee may, at its discretion, rely on internal or external expertise, and will meet on an as needed basis as set by the Chairperson.
- D. The Central Office Review Committee decisions will be returned to the respective District for final processing.

TRAINING

The Secretary of the Central Office Review Committee will provide consultation to the Districts.

FISCAL ANALYSIS

The cost to the Department incurred by this policy is recovered from the Contractor or Vendor by the minimum non-conformance fees stated in Sections III.A.2.c and IV.A.2.c of this policy.

CALCULATIONS FOR COMMON MATERIAL DEFICIENCIES

I. Strength Failures

If a material has deficient strength, then the following deduction shall apply:

$$\text{Deduction (percent)} = ((1 - (\text{actual strength} / \text{required strength})) \times 100)$$

II. Coating Thickness Failures

If a material has deficient coating thickness, then the following deduction shall apply:

$$\text{Deduction (percent)} = ((1 - (\text{actual thickness} / \text{required thickness})) \times 100)$$

III. Gradation (304)

When material is inadvertently incorporated into the work the following scale deduction shall be used for each failed sample and on each sieve:

Percent Out of Gradation	Percent Deduction of Material Cost (all sieves except No. 200)	Percent Deduction of Material Cost (No. 200 sieve)
0.1 - 1.0	(1)	(1)
1.1 - 2.0	5	10
2.1 - 3.0	10	20
3.1 - 4.0	15	30
4.1 - 5.0	25	50
5.1 or greater	(2)	(2)

- Notes: (1) Minimum non-conformance fee shall apply
(2) Material shall be removed and replaced at no additional cost to the Department.

The deduction is not accumulative, when the aggregate fails to meet the specified gradation

on more than one sieve , the largest deduction shall apply. This deduction shall apply to all material represented by the sample.

IV. Gradation (306, 307, Asphalt Treated Free Draining Base)

When random samples fail to meet specification gradation requirements at discharge from the mixer or pugmill or after the spreading operation, the following scale deduction shall be used for each failed sample and on each sieve:

Percent Out of Gradation	Percent Deduction of Material Cost (all sieves except No. 200)	Percent Deduction of Material Cost (No. 200 sieve)
0.1 - 1.0	(1)	(1)
1.1 - 2.0	10	50
2.1 - 3.0	20	50
3.1 - 4.0	30	50
4.1 - 5.0	50	50
5.1 or greater	(2)	(2)

- Notes: (1) Minimum non-conformance fee shall apply
 (2) Material shall be removed and replaced at no additional cost to the Department.

The deduction is not accumulative, when the aggregate fails to meet the specified gradation on more than one sieve , the largest deduction shall apply. If a pugmill and spreader sample represents the same lot or tonnage, the largest deduction shall apply. This deduction shall apply to all material represented by the sample.

V. Excess Water (Moisture) in Liquid Materials

If a liquid material has excess water (moisture), then the following formula applies:

$$\text{Price Adjustment} = (W_A - W_M) \times P \times 0.01$$

- Where: W_A = actual water (moisture) content (%)
 W_M = maximum allowed water (moisture) content (%)
 P = material price (\$)

VI. Air Voids, F/A Ratio, and F-T Value (441.10)

If asphalt concrete or bituminous aggregate base is outside the specification limit for high or low air voids, high or low F/A Ratio, or high F-T Value and the Contractor or Vendor makes immediate adjustments to bring the materials into the specification limits, then no further action is required, since the Contractor or Vendor is now controlling the mix within reasonably close conformity of the specifications.

If the material continues to be produced outside the specification limits or inconsistent control of the material following the above allowance persists, then the District should review the performance of the material to determine if the material can remain in place. If the material is allowed to remain in place, then the pay adjustment shall be 10 percent of the non-conforming material price.

VII. Low Bitumen Content (401.02, Supplement 1056)

If a sample of asphalt concrete or bituminous aggregate base has a bitumen content below the specification limits, then the following formula applies:

$$\begin{aligned} A (\$/CY) &= ((B_R - B_A - L) \times Q_T \times PI) / (Q_V \times 100) \\ B (\$/CY) &= (B_R - B_A - L) \times P \times 0.233 \\ \text{Price Adjustment } (\$) &= (A + B) \times Q_V \end{aligned}$$

Where: B_R = required bitumen content (%)
 B_A = actual bitumen content (%)
 L = allowable limits from design (%) = usually 0.5 %
 Q_T = effected quantity in tons
 Q_V = effected quantity in cubic yards
 PI = placing index for month material placed (\$/ton)
 P = bid price or material price (\$/CY)

VIII. High Bitumen Content (401.02, Supplement 1056)

If asphalt concrete or bituminous aggregate base is outside the specification limit for high bitumen and the Contractor or Vendor makes immediate adjustments to bring the materials into the specification limits, then no further action is required, since the Contractor or Vendor is now controlling the mix within reasonably close conformity of the specifications.

If the material continues to be produced outside the specification limits or inconsistent control of the material following the above allowance persists, then the District should review the performance of the material to determine if the material can remain in place. If the material is allowed to remain in place, then the pay adjustment shall be 5 percent of the non-conforming material price.

IX. Bitumen Content or 4.75 mm (No. 4) Sieve Outside Range Limitation (401.02, Supplement 1056)

If a sample of asphalt concrete or bituminous aggregate base is outside the range limitation specified in 401.02 for bitumen content or the 4.75 mm (No. 4) sieve, then the following formula applies:

$$\begin{aligned} \text{Price Adjustment} &= P \times 0.05 \\ \text{Quantity to Apply Price Adjustment} * &= Q_v \times F \end{aligned}$$

Where: F = fraction out on range based on the number of tests outside the range limitation divided by the total tests performed
P = bid price or material price
Q_v = effected quantity in cubic meters (cubic yards)

* Any remaining quantity shall have no deduction.

X. PG Binder

If a check sample of PG binder from a hot mix facility fails to meet the grade requirements and is proven to fail by at least two sample failures and a refinery sample taken at the same time is proven to pass the following formula applies:

$$\text{Price Adjustment} = P \times A \times Q$$

Where: Q = quantity of PG binder affected
P = material price, bid price
A = total of applicable adjustment factors from chart

Adjustment factor for PG binder sample failure

m-value failure	0.290 - 0.299	A = 0.05
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	0.280 - 0.289	A = 0.10
	0.270 - 0.279	A = 0.20
	0.269 or less	A = 0.30
Original DSR (G*/sin delta)	less than 1.00kPa	A = 0.30
Any other PG properties		A = 0.05

XI. Total Chlorides (712.03 Sodium Chloride)

Percent Below Specification	Deduction
0 to 1.0	Minimum non-conformance fee
1.1 to 3.0	5 percent
3.1 or more	10 percent

XII. Moisture Content (712.03 Sodium Chloride)

Percent	Deduction
2.0 to 2.4	Minimum non-conformance fee
2.5 or more	Deduction is actual moisture percentage minus 2 percent

XIII. Gradation (712.03 Sodium Chloride)

If a sample has any material retained on the 12.5 mm (0.5 inch) sieve, the material represented by the sample shall have a 10 percent deduction.

If a sample fails on any other sieve, the minimum non-conformance fee shall be deducted.