Materials Procedures Committee Regular Meeting

Meeting Time/Date: February 21st, 10:00 AM

Meeting Location: MCS&T (Conference Rm.) - 190 Dry Branch Drive, Charleston, WV 25306

Online Meeting: Google Meet Video Conference

Online Link - (https://meet.google.com/apa-rvti-ndx?authuser=0)

Files Available on ProjectWise for DOT users – See Invite or Follow P/W path:

WVDOH ORGS\MCS&T (0077) - FM\Materials Procedure Committee\MP Committee Meeting Files\2024\2024 02 21 MP Meeting

Files Available on Webpage:

https://transportation.wv.gov/highways/mcst/Pages/MP-Committee-Page.aspx

Materials Procedures – Approved at Last Meeting

1. 100.00.00 - Preparing Materials Procedures
2. 100.00.03 - Method of Evaluation of Non-Standard or Non-Conforming Materials in Construction Via Dmir
3. 717.04.21 - Guide for Quality Control of Compaction
4. 307.00.50 - Attachment - Guide for Quality Control and Acceptance Plans for Base Course

Materials Procedures - Old Business

*Note – Going Forward MCS&T will be using either SI units or Combined English and SI Units. Guidelines are established in the pending updates to MP 100.00.00.

Number	Champion	Title	Description
None on this Agenda			

Materials Procedures – Editorial Edits

None on this Agenda	

Materials Procedures - New Business with Significant or Process Updates

1&-106.00.21	Mullins	ACCEPTANCE PROCEDURE FOR MASH COMPLIANT ROADSIDE DEPARTURE HARDWARE	Update of voting members.
2&-307.00.50	Brayack	GUIDE FOR QUALITY CONTROL AND ACCEPTANCE PLANS FOR SUBGRADE, BASE COURSE, AND AGGREGATE ITEMS	Update to E-Ticket requirements, specifying what items are pre-populated on the ticket and which are entered at the project.

3&-401.03.50	Brayack	GUIDE FOR QUALITY CONTROL PLANS FOR ASPHALT	Update to E-Ticket requirements, specifying what items are pre-populated on the ticket and which are entered at the project.
4&-601.03.50	Brayack	GUIDE FOR QUALITY CONTROL AND ACCEPTANCE REQUIREMENTS FOR PORTLAND CEMENT CONCRETE	Update to E-Ticket requirements, specifying what items are pre-populated on the ticket and which are entered at the project.

Note 1: * Denotes this MP is up for Vote

Note 2: & Denotes this MP is not up for Vote

Comments

Comments due February 20th, so the Champion may review and address them. Submit comments to Adam Nester (Adam.W.Nester@wv.gov)

Next Meeting

New or Updated MPs due to the MP Chair 3-weeks before the next meeting: February 28th

Meeting Time/Date: 10:00 AM, March 20, 2024

Meeting Location: MCS&T Conference Room

Online Meeting: Google Meet Video Conference (Link TBD)

Additional MP Committee Meeting Information

For details of previous meetings, please visit the MCST MP Committee Webpage

https://transportation.wv.gov/highways/mcst/Pages/MP-Committee-Page.aspx

Tentative MP Committee Dates for 2024:

April 17, May 15, June 19

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

ACCEPTANCE PROCEDURE FOR MASH COMPLIANT ROADSIDE DEPARTURE HARDWARE

1. PURPOSE

1.1 To set forth a procedure for acceptance of Roadside Departure Hardware to ensure compliance with Joint Implementation Agreement for the Manual for Assessing Safety Hardware (MASH) between FHWA and AASHTO by memorandum, dated January 7, 2016.

2. REFERENCED DOCUMENTS

2.1 Manual for Assessing Safety Hardware (MASH)

2.2 WVDOH Specifications Roads and Bridges

2.3 MP 106.00.02 – "Procedure for Evaluation of New Products for Use in Highway Construction"

2.4 MP 106.00.03 – "Guidelines for Establishing and Maintaining Approved Product Lists of Materials, Systems and Sources."

3. SCOPE

3.1 This procedure is applicable to any roadside highway safety hardware that is to be reviewed by the Roadway Departure Task Force that will be placed on the Division's Approved Product List (APL).[1]

4. EVALUATION OF SUBMITTED PRODUCTS

4.1 Product shall be submitted to MCS&T in accordance with MP 106.00.02.

4.2 The product will then be reviewed via the Roadway Departure Task Force representatives. Those representatives shall consist of voting and non-voting members who provide expertise to review and recommend action on highway safety hardware. The voting members (or their representative) are:

a. Director of Traffic Engineering Division
b. Director of Technical Support Division
c. Director of Materials Control, Soils & Testing Division
~~d. Director of Operations Division~~

[1] https://transportation.wv.gov/highways/mcst/Pages/APL_By_Number.aspx

~~e.~~d. Director of Engineering Division
~~f.~~e. Traffic Mobility and Safety Engineer

~~The nonvoting members are: Director of Contract Administration Division~~

4.3 A meeting to discuss the submission shall be scheduled within 30 calendar days of the receipt of the submission.

4.4 The submission shall be evaluated based on the following criteria, in descending order of preference:

4.4.1 Letter of Eligibility (LOE) from FHWA

4.4.2 Full suite of passing MASH testing at an accredited facility, but no LOE

4.4.3 Previous issue of NCHRP 350 Letter of Eligibility and an acceptable In-Service Performance Evaluation. If suitable MASH compliant devices are available, NCHRP-350 devices will not be considered.

4.4.4 A professional opinion letter of due diligence has been issued by an accredited testing facility determination of the hardware being MASH eligible.

4.4.5 Minor modifications of hardware previously determined to be eligible by the DOH process that in the opinion of the Roadway departure Group determine are not significant modification to performance.

4.5 Products used by other DOT's will be considered after reviewing the data from the state standards coordinator as to the state's reasoning for usage after implementation dates.

5. ACCEPTANCE OF MASH MATERIAL

5.1 The voting members will determine if the product meets MASH criteria.

5.2 The voting members shall also evaluate the product to ensure that it meets other agency requirements and considerations such as maintenance requirements, other DOH Specifications and MUTCD requirements.

5.2.1 If applicable the product shall meet NTPEP requirements.

5.3 If approved, the submitted material will be added to the APL as per MP 106.00.02.

Ronald L. Stanevich, P.E.
Director
Materials Control, Soils & Testing Division

MP 106.00.21 Steward – Traffic Certification Section
RLS:M

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

GUIDE FOR QUALITY CONTROL AND ACCEPTANCE PLANS FOR SUBGRADE, BASE COURSE, AND AGGREGATE ITEMS

1. PURPOSE

1.1 The purpose of this Materials Procedure (MP) is to establish minimum requirements for the Contractor's Quality Control (QC) Program and Acceptance Plan. It is intended that these requirements be used as a procedural guide in detailing the inspection, sampling, and testing deemed necessary to maintain compliance with the material and Specification requirements.

1.2 To establish procedural guidelines for approval and documentation of the Master QC Plan.

2. SCOPE

2.1 This procedure is applicable to Aggregate items placed in the field. It outlines the quality control procedures for items used and includes procedures for approving and using a Master and/or Project Specific Quality Control (QC) Plan. This procedure also aids in documentation and retention of the QC Plan in ProjectWise.

3. REFERENCED DOCUMENTS

3.1 MP 109.00.21 - Basis for Charges for Non-Submittal of Sampling & Testing Documentation by the Established Deadline

3.2 MP 300.00.51 - Procedural Guidelines for Maintaining Control charts for Aggregate Gradations

3.3 MP 700.00.54 - Procedure for Evaluating Quality Control Sample Test Results with Verification Sample Test Results

3.4 MP 700.00.06 - Aggregate Sampling Procedures

3.5 ML-25, Procedure for Monitoring the Activities Related to Sieve Analysis of Fine and Coarse Aggregate

3.6 WV Division of Highways Construction Manual, Current Edition

3.7 WV Division of Highways Standard Specifications, Current Edition & Supplementary

4. GENERAL REQUIREMENTS

4.1 The Contractor shall provide and maintain a QC system that will provide reasonable assurance that all materials and products submitted to the District for acceptance will conform to the contract requirements whether natural, manufactured or processed by the

Contractor or procured from suppliers, subcontractors, or vendors. The Contractor shall perform or have performed the inspections and tests required to substantiate product conformance to contract document requirements and shall also perform or have performed all inspections and tests otherwise required by the contract. The Contractor's QC inspections and tests shall be documented and shall be available for review by the Engineer/District throughout the life of the contract. The Contractor shall maintain standard equipment and qualified personnel as required by the Specifications to assure conformance to contract requirements. Procedures will be subject to the review of the District before the work is started.

5. QUALITY CONTROL PLAN

5.1 The Contractor shall prepare a QC Plan detailing the type and frequency of inspection, sampling, and testing deemed necessary to measure and control the various properties of materials and construction governed by the Specifications. As a minimum, the sampling and testing plan shall detail sampling location, sampling techniques, and test frequency to be utilized. Attachment #1 shows guidelines for the QC Plan. QC sampling and testing performed by the Contractor may be utilized by the District for acceptance.

5.1.1 A QC Plan must be developed by the Contractor and submitted to the Engineer/District prior to the start of construction on every project. Acceptance of the QC Plan by the Engineer/District will be contingent upon its concurrence with these guidelines.

5.2 As work progresses, an addendum(s) may be required to the QC Plan to keep the QC program current. Personnel may be required to show proof of certification for testing.

5.3 QC Plan Guidelines: The QC plan shall include but not be limited to the following information:

5.3.1 Name of company official responsible for QC program. Contact phone number(s) and email(s) shall be included in the cover letter.

5.3.2 List certified personnel as specified in Section 106 of the Specifications, whether from the submitting company, consultant testing firm, or both.

5.3.3 List of the Aggregate items to be controlled by QC Plan.

5.3.4 Sampling and Testing Plan: As a minimum, the sampling and testing plan should detail sampling locations, test methods, and test frequencies to be used. To facilitate the District’s monitoring activities, which are described in Section 7.1, all completed gradation samples must be retained by the Contractor until further disposition is designated by the District Materials Supervisor. The QC Plan should state where and how these samples will be maintained. Applicable sections of Materials Letter ML-25 should be used for guidance.

5.3.5 Testing Facility: The plan shall state the specific location where the samples(s) will be tested and retained.

5.3.6 Documentation Plan: The Contractor’s plan to document and distribute test results shall be described.

5.3.7 Forms and Distribution: Approved processing forms available on the MCS&T Webpage[1] shall be used to record the test data. Gradation tests will be recorded on Form T300. The laboratory reference number will always start with a "C" for all QC samples taken and tested by the Contractor. One copy of each completed form should be retained by the Contractor until the work is completed and accepted. The original signed copy of the test data is to be delivered to the District Materials Supervisor. To be an effective QC function, tests must be completed and results distributed in a regular and timely manner. The plan, therefore, must state what action will be taken in the event that testing and reporting are not completed in a reasonable period of time - preferably within 72 hours after the sample is taken (at the discretion of the District.)

5.3.8 Control Charts: The Specifications require the plotting of gradation test results on control charts using the moving average concept as described in MP 300.00.51. The QC Plan should state where and how the charts shall be maintained and made available to District personnel. These charts are part of the District's acceptance procedures and must be available to the District when the project is completed or at the request of the District personnel. At the Contractor's request, the requirement of Control Charts may be waived on a per project basis. The Contractor will submit a written request to the District asking that the Control Charts be waived. The District will make a determination based on the size of the project and the number of gradation tests required.

5.3.9 Disposition of Non-Specification Material: The Contractor shall provide a detailed plan of action for the immediate notification of all parties involved in the event that nonconforming situations are detected.

5.3.10 Delivery Tickets

Each truckload of aggregate delivered at the project shall be accompanied by delivery ticket with all the following information:

1. Ticket number
2. Producer/Supplier Code
3. Producer/Supplier Name
4. Producer/Supplier Location
5. Contract Identification Number (CID #)
6. Federal Project Number (If applicable)
7. State Project Number
8. Date/Time
9. Material Code/Name
~~10. Material Name~~
11. License Number of Haul Unit or Truck Number
12. Load Number
13. Daily Tonnage
14. Tonnage to Date
15. Gross Truck Weight
16. Tare Truck Weight
17. Net Weight
18. Weighperson's Name certifying that all information on the ticket is correct.

[1] https://transportation.wv.gov/highways/mcst/Pages/tbox.aspx

The following information shall be documented on the ticket by the project:

1. Item Number
2. Line Number

5.3.10.1 Documentation shall be provided to the project as per the requirements of Section 109.20 of the Specification.

5.3.11 Types of QC Plans

5.3.11.1 QC Plans which are intended for use on more than one project shall be defined as Master QC Plans. Section 6.1 outlines the procedures for Master QC Plan submittal and approval.

5.3.11.2 QC Plans which are intended for use on a single project shall be defined as Project Specific QC Plans. Project Specific QC Plans shall contain a cover letter which includes the following: project description, CID#, and Federal and/or State Project Number.

5.3.11.3 A contractor may submit a project specific cover letter referencing the Master QC plan instead of a Project Specific QC Plan.

5.3.11.4 Once any QC Plan is approved for a project, the key-date shall be entered in Site Manager by the appropriate District Materials personnel. The first date entered shall be the date the Project QC Plan letter is received. The second date shall be when the District approves the QC Plan for use on the project.

6. MASTER QUALITY CONTROL PLAN

6.1 The intent of a Master QC Plan is to facilitate the approval process in a more uniform manner. The Contractor may submit a Master QC when their workload in a given District is routinely repetitive for the year. Testing includes both performing the test and submitting the results as per MP 109.00.21.

6.1.1 The Contractor may submit a new Master Aggregate Items QC Plan each year to each District in which they have or expect to have work (see Attachment #2 for an example.) If the Contractor does not have work or does not have a history of work in a given District for the year, then a Master Field QC Plan shall not be submitted to that District.

6.1.2 The District will review the submitted Master QC Plan to see if it meets the requirements for the Aggregate Items in the QC Plan as per Section 5.3. If accepted, the District shall assign a laboratory reference number to the Master QC Plan for future referencing. The District will acknowledge approval of each Master QC Plan to the Contractor by letter (see Attachment #3 for an example), which will include the laboratory reference number and a copy of the approved Master QC Plan. This will then be scanned and placed in ProjectWise under the appropriate District's Org for that Contractor and/or Producer/Supplier.

6.1.3 Once a project has been awarded, if a Contractor elects to use the approved Master Aggregate Items QC Plan on that project, the Contractor shall submit a letter requesting to use the Master QC Plan for that project. This letter must be on the Contractor's letterhead,

be addressed to the District Engineer/Manager or their designee, and contain the following information: project number, CID#, project description, type of QC Plan, and the laboratory reference number for the Master QC Plan. (See Attachment #4 for an example.)

6.1.4 The District shall review the referenced Master QC Plan to ensure it covers all items in the project. If the referenced Master QC Plan is found to be insufficient for some items on the project, the District shall request the Contractor to submit additional information for QC of those items as an addendum on a project specific basis. When the District is satisfied with the QC Plan for this project, a letter shall be sent to the Contractor acknowledging approval (see Attachment #5 for an example), with the following attached: the Contractor's project QC Plan request letter and the Master QCP approval letter. This shall then be placed in the project's incoming-mail mailbox in ProjectWise.

6.1.5 A Master QC Plan that has been approved for project use shall be good for the duration of that project, even if that project continues into future calendar years.

6.1.6 For the use of District Personnel, the District approval letter for this project must state the ProjectWise link to the referenced Master QC Plan for that Contractor. For example, WVDOT ORGS > District Organization #> Materials > Year>Master QC Plans, etc.

6.1.7 The Master Aggregate items QC Plan shall be valid for the duration of one calendar year beginning on January 1st and ending on December 31st.

7. ACCEPTANCE PLAN

7.1 Per 307.2 of the Specifications, the acceptance (verification) sampling and testing is the responsibility of the District and QC tests are the responsibility of the Contractor. Acceptance activities (sampled and tested at the frequency given in Section 7.1.2) may be accomplished by conducting verification sampling and testing completely independent of the Contractor and, in some cases, by witnessing tests performed by the Contractor, or by a combination of the two. The following guidelines provide a system, which should result in sufficient confidence in the Contractor's documentation of their QC operations to permit acceptance of the material in accordance with the procedure set forth in the Specifications.

7.1.1 The District shall review all information supplied by the Contractor on the QC Plan. Note, in particular, the qualifications of the sampler, tester, the location, and other qualifying statements about the testing facility. In the event that little qualifying information is supplied or has been demonstrated by the testing facility: Prior to work, the District (or their representative) shall review the availability, type, and suitability of the testing equipment and verify all calibrations. This information should be documented and kept available at the District Materials Section.

7.1.2 The District shall sample and test, completely independent of the Contractor, at a frequency equal to or greater than ten (10) percent of the frequency for testing given in the approved QC Plan. Witnessing the Contractor's sampling and testing activities may also be a part of the acceptance procedure, but only to the extent that such tests are considered "in addition to" the ten (10) percent independent tests.

7.1.3 Plot the results of gradation tests performed by the District on the Contractor's QC charts with a red circle, but do not include these values in the moving average. When the Contractor's tests are witnessed, circle the Contractor's test result on the control chart with red. These values are used in the moving average calculations. The laboratory number will always start with an "M" for all acceptance (verification) samples taken and tested in this manner by the District, and will always start with a "0" for all of the Contractor's tests, which are witnessed by the District.

7.1.4 Evaluate the results of acceptance (verification) tests, whether performed or witnessed by the District, in accordance with MP 700.00.54.

7.2 If the evaluation indicates similarity with the QC test(s), the control chart will be considered acceptable to that point.

7.2.1 If dissimilarity is determined, an immediate investigation shall be conducted in an effort to determine the cause. Until the situation is resolved, any samples held in accordance with ML-25 will be retained and may be used in whatever manner deemed appropriate during the investigation.

7.3 Implement ML-25 for aggregate gradations.

8. ABSENT TESTING OF MATERIAL

8.1 If the Contractor fails to perform testing of the material in accordance with the Contractor's Division Approved Quality Control Plan, payment for the portion of the item represented by the absent test shall be withheld, pending the Engineer's decision whether or not to allow the material to remain in place. Testing includes both performing the test and submitting the results as per MP 109.00.21.

8.1.1 If the Engineer allows the material to remain in place, the Division shall not pay for the material represented by the absent test. However, the Division shall pay for the cost of the placement of the material, including labor and equipment. The invoice or material supplier cost (if applicable), determined at the time of shipment, shall be used to calculate the cost of material when evaluating the total cost of labor and equipment.

Ronald L. Stanevich, P.E.
Director
Materials Control, Soils and Testing Division

MP 307.00.50 Steward – Aggregate and Soils Section
RLS: M
ATTACHMENTS

For Committee, no change to Attachments

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

GUIDE FOR QUALITY CONTROL PLANS FOR ASPHALT

1. PURPOSE

1.1 This procedure presents uniform Quality Control (QC) guidelines for Contractor (and/or Producer(s)) to develop their QC Plan. All items listed are believed necessary to assure adequate product QC.

1.2 This procedure also creates a more uniform process for District Materials to review and approve Quality Control Plans for use on projects.

2. SCOPE

2.1 This Material Procedure (MP) is applicable to, but not limited to the following Asphalt Items:

2.1.1 Base

2.1.2 Wearing

2.1.3 Patching and Leveling Courses

2.1.4 All P.W.L. Items

2.1.5 Skid

3. REFERENCED DOCUMENTS

3.1 MP 109.00.21 - Basis for Charges for Non-Submittal of Sampling & Testing Documentation by the Established Deadline.

4. GENERAL REQUIREMENTS

4.1 As stated in 401.6.1 of the Specifications, a QC Plan must be developed by the Contractor and/or Producer and submitted to the Engineer prior to construction. Acceptance of the Quality Control Plan by the Engineer will be contingent upon its concurrence with these guidelines. For this reason, the plan should clearly describe the methods by which the Quality Control Program will be conducted. For example, the items to be controlled, tests to be performed, testing frequencies, sampling locations and techniques all should be included and each item should be listed separately. Also, a detailed plan of action regarding disposition of non-specification material should be included. Such a plan should provide for immediate notification of all parties involved in the event non-conforming situations are detected. Attachment #1 may be used as an example Quality Control Plan for plant operations using all items that are applicable to the specific type of plant items produced. Attachment #2 may be used as an example Quality Control Plan for field operations using all items that are applicable to field work.

4.2 Inspection and testing records shall be maintained, kept current, and made available for review by the Engineer throughout the life of the contract. All other documentation, such as date of inspections, tests performed, temperature measurements, and any accuracy, calibration, or re-calibration checks performed on production or testing equipment should be recorded.

4.3 The Contractor shall maintain standard calibrated equipment and certified personnel in accordance with contract and Specification requirements for the item(s) being produced.

4.4 The Division reserves the right to review all pertinent documents concerning equipment calibration used for testing and proof of certified personnel performing tests.

5. MASTER QUALITY CONTROL PLAN

5.1 The intent of a Master QC Plan is to facilitate the approval process in a more uniform manner. The Contractor may submit a Master QC when their workload in a given District is routinely repetitive for the year.

5.1.1 The Contractor may submit a new Master Asphalt Items QC Plan each year to each District in which they have or expect to have work. If the Contractor does not have work or does not have a history of work in a given District for the year, then a Master QC Plan shall not be submitted to that District.

5.1.2 The District will review the submitted Master QC Plans to see if they meet the requirements for the Asphalt Items in the QC Plan. If accepted, the District shall assign a laboratory reference number to the Master QC Plans for future referencing. The District will acknowledge approval of each Master QC Plan to the Contractor by letter (see Attachment #3 for an example), which will include the laboratory reference number and a copy of the approved Master QC Plan. This will then be scanned and placed in ProjectWise under the appropriate District's Org for that Contractor and/or Producer/Supplier.

5.1.3 Once a project has been awarded, if a Contractor elects to use the approved Master Asphalt Items QC Plan on that project, the Contractor shall submit a letter requesting to use the Master QC Plan for that project. This letter must be on the Contractor's letterhead, be addressed to the District Engineer/Manager or their designee, and contain the following information: project number, CID#, project description, type of QC Plan, and the laboratory reference number for the Master QC Plan. (See Attachment #4a and 4b for Plant and Field operations respectively for examples.)

5.1.4 The District shall review the referenced Master QC Plan to ensure it covers all items in the project. If the referenced Master QC Plan is found to be insufficient for some items on the project, the District shall request the Contractor to submit additional information for QC of those items as an addendum on a project specific basis. When the District is satisfied with the QC Plan for this project, a letter shall be sent to the Contractor acknowledging approval (see Attachment #5 for an example), with the following attached: the Contractor's project QC Plan request letter and the Master QCP approval letter. This shall then be placed in the project's incoming-mail mailbox in ProjectWise.

5.1.5 A Master QC Plan that has been approved for project use shall be good for the duration of that project, even if that project continues into future calendar years.

5.1.6 For the use of District Personnel, the District approval letter for this project must state the ProjectWise link to the referenced Master QC Plan for that Contractor. For

example, WVDOT ORGS > District Organization #> Materials > Year>Master QC Plans, etc.

5.1.7 The Master Asphalt Items QC Plan shall be valid for the duration of one calendar year beginning on January 1st and ending on December 31st.

5.2 Delivery Tickets

5.2.1 Each truckload of asphalt delivered to the project shall be accompanied by one delivery ticket with the following items listed on the ticket:

1. Ticket Number
2. Producer/Supplier Code
3. Producer/Supplier Name
4. Producer/Supplier Location
5. Contract Identification Number (CID #)
6. Federal Project Number (If applicable)
7. State Project Number
8. Date/Time Batched
9. ~~Time Batched~~
10. ~~Item Number~~
11. Material Code/Name
12. License Number of Haul Unit or Truck Number
13. Approved Job Mix Formula (JMF) Number
14. Gross Weight (TN)
15. Tare Weight (TN
16. Net Weight (TN)
17. Daily Cumulative Weight Cumulative Weight (TN)
18. Maximum Density*
19. Lab Number for Testing**.
20. Weighperson's Name certifying that all information on the ticket is correct.

*In addition, once the design has been verified, the newly established Maximum Density shall be reported on each ticket thereafter.
** This may be added by the project or District.

The following information shall be documented on the ticket by the project:

1. Item Number
2. Line Number
3. Truck Temperature at Jobsite (^{o}F/^{o}C)

5.2.1.1 Documentation shall be provided to the project as per the requirements of Section 109.20 of the Specifications.

6. ASPHALT FOR MAINTENANCE

6.1 The provisions of this MP will also apply to asphalt plant run purchase orders that are picked up at the plant by the Division's Maintenance forces. Yearly Master Plant and Field QCP's apply to Laydown Asphalt Purchase Orders awarded to vendors. Exceptions to this are as specified in the Purchase Order Maintenance Contract.

7. ACCEPTANCE PLAN

7.1 The Asphalt Material shall be accepted in accordance with the material's specific MP and the Standard Specifications.

7.2 Key Dates

7.2.1 Once the Quality Control Plan is approved for the project the key date shall be entered into the current AASHTOWare software by the appropriate District Materials personnel. The first date entered shall be the date the Project Quality Control Plan letter is received. The second date shall be when the district approves the quality control plan for use on the project.

8. ABSENT TESTING OF MATERIAL

8.1 If the Contractor fails to perform testing of the material in accordance with the Contractor's Division Approved Quality Control Plan, payment for the portion of the item represented by the absent test shall be withheld, pending the Engineer's decision whether or not to allow the material to remain in place. Testing includes both performing the test and submitting the results as per MP 109.00.21.

8.1.1 If the Engineer allows the material to remain in place, the Division shall not pay for the material represented by the absent test. However, the Division shall pay for the cost of the placement of the material, including labor and equipment. The invoice or material supplier cost (if applicable), determined at the time of shipment, shall be used to calculate the cost of material when evaluating the total cost of labor and equipment.

Ronald L. Stanevich, P.E.
Director
Materials Control, Soils and Testing Division

MP 401.03.50 Steward – Asphalt Section
RLS: J
ATTACHMENTS

For Committee, no change to Attachments

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

GUIDE FOR QUALITY CONTROL AND ACCEPTANCE REQUIREMENTS FOR PORTLAND CEMENT CONCRETE

1. PURPOSE

1.1 To establish minimum requirements for Contractor's Quality Control (QC) system and the Division's Acceptance Plan. It is intended that these minimum requirements be followed in detailing the inspection, sampling, and testing deemed necessary to maintain compliance with all Specification requirements.

2. SCOPE

2.1 This Materials Procedure (MP) is applicable to all Portland Cement Concrete (PCC) items, and it outlines the quality control procedures for both plant and field operations and includes procedures for approving and using Master and/or Project Specific QC Plans. This procedure also aids in documentation and retention of QC Plans in ProjectWise.

3. REFERENCED DOCUMENTS

3.1 AASHTO M 201 - Standard Specification for Mixing Rooms, Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the Testing of Hydraulic Cements and Concretes.

3.2 AASHTO T 22 - Standard Method of Test for Compressive Strength of Cylindrical Concrete Specimens.

3.3 AASHTO T 231 - Standard Method of Test for Capping Cylindrical Concrete Specimens.

3.4 ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.

3.5 ASTM C1231 - Standard Practice for Use of Unbonded Caps in Determination of Compressive Strength of Hardened Cylindrical Concrete Specimens.

3.6 ASTM C39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

3.7 ASTM C511 - Standard Specification for Mixing Rooms, Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the Testing of Hydraulic Cements and Concretes.

3.8 ASTM C617 - Standard Practice for Capping Cylindrical Concrete Specimens.

3.9 MP 109.00.21 - Basis for Charges for Non-Submittal of Sampling & Testing Documentation by the Established Deadline.

3.10 MP 300.00.51 - Procedural Guidelines for Maintaining Control Charts for Aggregate Gradation.

3.11 MP 601.03.52 – Procedural Guidelines for Maintaining Control Charts for Portland Cement Concrete.

3.12 MP 601.04.20 - Curing Concrete Test Specimens in The Field.

3.13 MP 601.05.50 - Quality Assurance Procedures for Portland Cement Concrete.

3.14 MP 700.00.54 - Procedure for Evaluating Quality Control Sample Test Results with Verification Sample Test Results.

4. GENERAL REQUIREMENTS

4.1 The Contractor shall provide and maintain a quality control system that will provide reasonable assurance that all materials and products submitted to the Division for acceptance will conform to the contract requirements whether manufactured or processed by the Contractor or procured from suppliers, subcontractors, or vendors. The Contractor shall perform or have performed the inspections and tests required to substantiate product conformance to contract document requirements and shall also perform or have performed all inspections and tests otherwise required by the contract. The Contractor's quality control inspections and tests shall be documented and shall be available for review by the Engineer throughout the life of the contract. The Contractor shall maintain standard equipment and qualified personnel as required by the Specifications to assure conformance to contract requirements. Procedures will be subject to the review of the Division before the work is started.

5. QUALITY CONTROL PLAN

5.1 The Contractor shall prepare a QC Plan detailing the type and frequency of inspection, sampling, and testing deemed necessary to measure and control the various properties of materials and construction governed by the Specifications. As a minimum, the sampling and testing plan should detail sampling location, sampling techniques, and test frequency to be utilized. Quality control sampling and testing performed by the Contractor may be utilized by the Division for acceptance.

5.1.1 A QC Plan must be developed by the Contractor and submitted to the Engineer prior to the start of construction on every project. Acceptance of the QC Plan by the Engineer will be contingent upon its concurrence with these guidelines.

5.1.2 As work progresses, an addendum(s) may be required to a QC Plan to keep the QC program current. Personnel may be required to show proof of certification for testing.

5.2 Quality Control Plan Guidelines

5.2.1 The Plan shall identify the personnel responsible for the Contractor's quality control. This should include the company official who will act as the liaison with Division personnel, as well as the Certified Portland Cement Concrete Technician who will direct the inspection program at the plant or in the field depending on if it is a plant or field QC Plan. Their phone number and email address must also be included as a means for contact by the Division personnel.

5.2.2 All classes of concrete and corresponding mix design numbers, which may be used, shall be listed on the Plant QC Plan. All classes of concrete, which may be used, shall be listed on the Field QC Plan.

5.2.3 Process control sampling, testing, and inspection should be an integral part of the contractor's quality control system. In addition to the above requirements, the Contractor's QC Plan should document the process control requirements shown in Table 1 of Attachment 1. The process control activities shown in Table 1 are considered to be normal activities necessary to control the production and placement of a given product or material at an acceptable quality level. To facilitate the Division's activities, the Contractor, as per ML-25, shall retain all completed gradation samples until further disposition is designated by the Division.

5.2.4 All sampling and testing shall be in accordance with the methods and procedures required by the Specifications. Measuring and testing equipment shall be standard and properly calibrated as per the specified test procedures. If alternative sampling methods, procedures, and inspection equipment are to be used, they shall be detailed in the QC Plan. Any QC testing that is not performed in accordance with the methods and procedures required by the Specifications shall be considered an invalid test, and the applicable penalty for the cost associated with that test, in accordance with MP 109.00.~~20~~21, will be assessed to the contractor, along with the applicable price adjustment in Section 105.3. The test specimen(s) represented by an invalid test shall be considered as not meeting Specifications and documented accordingly. The Division may, however, use the results of an invalid test to determine if material may be accepted and allowed to remain in place and if payment may be made for the material represented by the invalid test.

5.2.4.1 Any individual who samples or tests plastic concrete for quality control purposes shall be certified as a WVDOH PCC Inspector.

5.2.4.2 Any Laboratory which tests the hardened concrete cylinders for the Contractor, for quality control purposes, shall be listed in the Contractor's QC Plan for field operations. This Laboratory shall provide evidence that it meets the applicable requirements in ASTM C1077, pertaining to testing hardened concrete cylinders, for a concrete testing laboratory, including curing facilities, testing equipment, technician proficiency, participation in the Cement and Concrete Reference Laboratory (CCRL) Concrete Proficiency Sample Program (PSP), Quality Management System documentation, and recordkeeping. The only test required for these laboratories, in the CCRL Concrete PSP, is ASTM C39 (AASHTO T 22), but it is recommended that the laboratory perform

all the field test portions of these Proficiency Samples and maintain the results of these tests, in order to evaluate any root cause issues pertaining to compressive strength. Each Laboratory shall be inspected and evaluated initially, and at least once every regular inspection tour cycle (approximately 30 months) by the CCRL. The ASTM standards pertaining to testing concrete cylinders, with which the subject laboratory must comply, include ASTM C39 (AASHTO T 22), ASTM C617 (AASHTO T 231) or ASTM C1231, and ASTM C511 (AASHTO M201). The Personnel Qualification requirements in Section 6 of ASTM C1077 regarding PE direction, Laboratory Supervisors, and concrete laboratory personnel testing certifications also apply, except that a Laboratory Supervisor with at least five years' experience in construction materials testing shall be a permissible substitution for the licensed professional engineer. Subsequent documentation shall be provided to the Division showing that the subject Laboratory and personnel meet the applicable requirements of ASTM C1077, pertaining to testing concrete cylinders, for a concrete laboratory.

5.2.4.3 Any Laboratory which desires to test Contractor hardened concrete QC specimens on WVDOH projects shall submit the evidence/documentation, required in Section 5.2.4.2, confirming compliance with ASTM C1077, with regards to testing concrete cylinders, to MCS&T Division at the following e-mail address: DOHMCSnTconcretelab@wv.gov. MCS&T Division will review this submittal. In this submittal, the subject Laboratory shall also explain how all deficiencies noted in the CCRL Laboratory Inspection Report have been addressed. All deficiencies noted in the CCRL Laboratory Inspection Report shall be resolved to the satisfaction of the Division within 90 days from the date of the CCRL Laboratory Inspection Report. Once MCS&T Division determines that the subject Laboratory is in compliance with the applicable requirements of ASTM C1077, and all deficiencies have been adequately resolved, that Laboratory will be placed on the Division's Approved List of Concrete Cylinder Testing Labs. All laboratories which test contractor hardened concrete QC specimens on WVDOH projects must be listed on the Division's Approved List of Concrete Cylinder Testing Labs. A listing of these laboratories is available on the WVDOH MCS&T Webpage[1]. All Division Approved Laboratories shall provide the Division with the CCRL Lab Number for their laboratory and agree to allow DOH, CCRL, and AASHTO re:source to freely share information about assessment reports, proficiency samples, corrective actions, quality management system, and personnel competency and certification records.

[1] https://transportation.wv.gov/highways/mcst/Pages/APL_By_Number.aspx

5.2.5 When calculating the compressive strength of concrete cylinders in accordance with AASHTO T22, the following procedure shall be used:

$$CS = \frac{ML}{0.25 \times \pi \times D^2}$$

Where:

CS = Compressive Strength of the specimen
ML = Maximum load carried by the specimen during the test
π = Mathematical constant PI
D = Diameter of the cylinder being tested (in accordance with AASHTO T 22)

Note: The calculation for CS shall be performed in one continuous step (without any rounding), either by the testing machine, or by calculating device, and only the final value (CS) is permitted to be rounded (to the accuracy specified in AASHTO T 22). The value for π shall be the manufacturer's pre-programmed value in a calculating device or the testing machine.

5.2.6 Miscellaneous Concrete:

The contractor is not required to perform the process control testing required by Part C of Table 1 of the Attachment on miscellaneous concrete (as defined in 5.2.6.1), provided that the concrete in question is being supplied by an A1 or A2 plant (as defined in MP 601.05.50, formerly numbered as IM-18), and provided that the requirements of section 5.2.6.2 are met for each project on which the reduced testing of miscellaneous concrete is applied.

5.2.6.1 Miscellaneous concrete shall be defined as relatively small quantities, not exceeding 25 yd^3 per day, incorporated into items that will not adversely affect the traffic carrying capacity of a completed facility. Such items would not include any concrete intended for major structures, permanent mainline or ramp pavements, or any other structurally critical items part of, or adjacent to the roadway.

The following items are suggested as a guideline in establishing items that may be categorized as miscellaneous concrete:

1 Sidewalks
2. Curb and Gutter
3. Temporary pavements and pipe crossings
4. Building floors
5. Slope paving and headers
6. Paved ditch or gutter
7. Small (less than 36" diameter) culvert headwalls

5.2.6.2 One sample per two days of production (for the same project) shall be tested (beginning on the first day of production) for compressive strength, air content, and consistency. On a minimum of ten percent of the samples outlined above, the Division will observe the batching operation at the plant (that is producing the concrete to be sampled) and check the operational control.

5.2.6.3 When placing miscellaneous concrete and no testing is required, an Approved Source Sample will be generated in SiteManager. The C###### representing the test from the previous day of production shall be entered in the intended use field. Miscellaneous Concrete will be entered in remarks. Miscellaneous Concrete will be written on all batch tickets for which testing is not required, per the miscellaneous concrete provisions of this MP, prior to scanning and placing in ProjectWise.

5.2.7 Documentation:

The Contractor shall maintain adequate records of all inspections and tests. The records shall indicate the nature and number of observations made, the number and type of deficiencies found, the quantities approved and rejected, and the nature of corrective action taken as appropriate. The Contractor's documentation procedures will be subject to the review and approval of the Division prior to the start of the work and to compliance checks during the progress of the work.

5.2.8 Charts and Forms:

All conforming and non-conforming inspections and test results shall be kept complete and shall be available at all times to the Division during the performance work. Forms shall be on a computer-acceptable medium where required. Batch ticket data shall be documented in accordance with the applicable section of MP 601.03.50, with a copy to be submitted to the District Materials Section within 72 hours of the concrete placement. Gradation data shall be documented on WVDOH form T300 using the material codes listed in the online computer systems user guide. The original gradation data shall be submitted to the District Materials Section within 72 hours of obtaining the gradation sample. Test data for (PCC) shall be charted in accordance with the applicable requirements of MP 601.03.52. Gradation test data shall be plotted in accordance with the applicable requirements of MP 300.00.51. The Contractor may use other types of control charts as deemed appropriate by the Division. It is normally expected that testing and charting will be completed within 48 hours after sampling. The Contractor shall also ensure that all Material Suppliers prepare and submit the HL-441 form (weekly supplier report) in a timely manner.

5.2.8.1 All charts and records documenting the Contractor's quality control inspections and tests shall become property of the Division upon completion of the work.

5.2.9 Batch Tickets

Each batch of Structural Concrete, including miscellaneous concrete (as defined in section 5.2.6.1), delivered at the project shall be accompanied by one batch ticket with all of the items of information listed in Section 5.2.9.1 pre-populated on the ticket. In the case of (PCC) Pavement, each batch of concrete delivered at the project on which a test in accordance with Table 1 of Attachment 1 is to be performed shall be accompanied by a batch ticket. This batch ticket shall have all of the items listed in section 5.2.9.1 pre-populated on the ticket unless non-agitator trucks or truck agitators are used. In this case, the batch ticket shall have all of the items listed in section 5.2.9.2 pre-populated on the ticket.

5.2.9.1 All batch tickets for Structural Concrete and (PCC) Pavement Concrete transported by truck mixers shall have all the following items pre-populated on the ticket:

1. Producer/Supplier Code
2. Producer/Supplier Name
3. Producer/Supplier Location
4. Mix Design Laboratory Reference Number
5. Date
6. Sequence Number
7. Volume (yd^3)
8. Time Batched
9. ~~Time Unloaded~~
10. Contract Identification Number (CID #)
11. Federal Project Number (If applicable)
12. State Project Number
13. Material Code/Name
14. ~~Material Name~~
15. Water Allowed (Gallon)
16. Water at Plant (Gallon)
17. Weight of Ice at Plant (lb.)
18. ~~Water at Job (Gallon)~~
19. Weight of Cement (lb.)
20. Supplementary Cementitious Material(s) (SCM) (lb.)
21. Weight of Fine Aggregate (lb.)
22. Weight of Coarse Aggregate (lb.)
23. *Admixture Name(s) and Dose (ounces)
24. ~~Temperature (°F/°C)~~
25. Cylinder I.D.
26. Initial Counter
27. ~~Final Counter~~
28. Target Consistency (in/mm)
29. ~~Actual Consistency (in)~~
30. Target Air (%)
31. ~~Actual Air (%)~~
32. License Number of Haul Unit.

Commented [DB1]: Will add metric to all of these also (in/mm etc.)

* If admixtures are added at the jobsite, these shall be entered by the project.

The following information shall be documented on the ticket by the project:

1. Item Number
2. Line Number
3. Time Unloaded
4. Water at Job (Gallon)
5. Temperature (°F/°C)
6. Final Counter
7. Actual Consistency (in/mm)
8. Actual Air (%)

5.2.9.2 All batch tickets for concrete delivered by means of non-agitator trucks or truck agitators shall have all of the following items pre-populated on the ticket:

1. Producer/Supplier Name
2. Mix Design Laboratory Reference Number
3. Date
4. Sequence Number
5. Volume (yd^3)
6. Time Batched
7. ~~Time Unloaded~~
8. ~~Contract Identification Number~~ (CID #)
9. Federal Project Number (If applicable)
10. State Project Number
11. Material Code/Name
12. ~~Material Name~~
13. Water Allowed (Gallon)
14. Water at Plant (Gallon)
15. Weight of Ice at Plant (lb.)
16. Weight of Cement (lb.)
17. Weight of SCM (lb.)
18. Weight of Fine Aggregate (lb.)
19. Weight of Coarse Aggregate (lb.)
20. *Admixture Name(s) and Weight(s) (ounces)
21. ~~Temperature (°F/°C)~~
22. Target Consistency (in)
23. ~~Actual Consistency (in)~~
24. Target Air (%)
25. ~~Actual Air (%)~~
26. License Number of Haul Unit.

* If admixtures are added at the jobsite, these shall be entered by the project.

The following information shall be documented on the ticket by the project:

1. Item Number
2. Line Number
3. Time Unloaded
4. Water at Job (Gallon)
5. Temperature (°F/°C)
6. Final Counter
7. Actual Consistency (in/mm)
8. Actual Air (%)

5.2.9.3 The batch ticket in the case of either type of concrete shall be a batch ticket prepared by the plant. This ticket must be computer generated with blank fields provided in which all of the required data shall be recorded. The data items listed above that are completed in the field (such as Time Unloaded, Actual Consistency, etc.) must have a field on the batch ticket for completion. Volume is to be reported to the nearest 0.01 yd^3. Consistencies are to be reported to the nearest 0.25 inch. Target and Actual Air are to be reported to the nearest 0.1% (to the nearest 0.25% if the volumetric method is used).

5.2.9.4 As per the requirements of Section 109.20.1 of the Specifications, an e-ticket shall be provided to meet these requirements.

5.2.10 Corrective Action:

The Contractor shall take prompt action to correct conditions, which have resulted, or could result, in the submission to the Division of materials and products, which do not conform to the requirements of the Contract documents.

5.2.11 Non-Conforming Materials:

4.2.11.1 The Contractor shall establish and maintain an effective and positive system for controlling non-conforming material, including procedures for its identification, isolation and disposition. Reclaiming or reworking of non-conforming materials shall be in accordance with procedures acceptable to the Division. All non- conforming materials and products shall be positively identified to prevent use, shipment, and intermingling with conforming materials and products. Holding areas, mutually agreeable to the Division and the Contractor shall be provided by the Contractor.

5.2.12 Types of QC Plans:

5.2.12.1 QC Plans which are intended for use on more than one project shall be defined as Master QC Plans. Section 5.3 outlines the procedures for Master QC Plan submittal and approval.

5.2.12.2 QC Plans which are intended for use on a single project shall be defined as Project Specific QC Plans. Project Specific QC Plans shall contain a cover letter which includes the following: project description, CID#, Federal and/or State Project Number.

5.2.12.3 A Contractor may submit a Master QC Plan for Plant and/or Field operations instead of a Project Specific QC Plan.

5.2.12.4 Once any QC Plan is approved for a project, the key date shall be entered in SiteManager by the appropriate District Materials personnel. The first date entered shall be the date the Project QC Plan letter is received. The second date shall be when the District approves the QC Plan for use on the project.

5.3 Master QC Plan

5.3.1 The intent of Master QC Plans is to facilitate the approval process in a more uniform manner. Master QC Plans can be submitted to the Division by the Contractor when their workload in a given District is routinely repetitive for the year.

5.3.2 The Contractor shall submit a Master Field QC Plan yearly to each District in which they have work (see Attachment 2). If the Contractor does not have work in a given District for the year, then a Master Field QC Plan does not need to be submitted to that District.

5.3.3 The Producer/Supplier shall submit a Master Plant QC Plan at the beginning of each year to the District in which their plant is located (see Attachment 3).

5.3.4 The District will review the submitted Master QC Plans to see if they meet the applicable requirements of Sections 5.2 thru 5.2.11.1 and assign a Laboratory Reference Number to each QC Plan upon approval, for future referencing. The District will acknowledge approval of each Master QC Plan to the Contractor and/or Producer/Supplier by letter (see Attachment 4), which will include the Laboratory Reference Number and a copy of the approved Master QC Plan. This will then be scanned and placed in ProjectWise under the appropriate District's Org for that Contractor and/or Producer/Supplier.

5.3.5 Once a project has been awarded, if a contractor elects to use the approved Master Plant and Master Field QC Plans on that project, the Contractor shall submit a letter requesting to use the Master QC Plans for that project. This letter must be on the Contractor's letterhead, be addressed to the District Engineer/Manager or their designee, and contain the following information: project number, CID#, project description, type of Quality Control Plan and the laboratory reference number for the Master QC Plan. See Attachment 5 for an example of a plant letter and Attachment 6 for an example of a field letter.

5.3.5.1 The District shall review the referenced Master QC Plans to ensure they cover all items in that project. If the referenced Master QC Plan is found to be insufficient for some

items on that project, the District shall request the Contractor to submit additional information for quality control of those items as an addendum on a project specific basis. When the District is satisfied with the QC Plan for that project, a letter shall be sent to the Contractor acknowledging approval (see Attachment 7), with the following attached: the contractor's project QC Plan request letter and the Master QC Plan approval letter. This shall then be placed in the project's incoming-mail mailbox in ProjectWise.

5.3.5.2 A Master QC Plan that has been approved for project use shall be good for the duration of that project.

5.3.5.3 For the use of Division Personnel, the District approval letter for this project must state the ProjectWise link to the referenced Master QC Plan for that Contractor (for example: WVDOT ORGS > District Organization #> Materials > Year > Master QC Plans).

5.3.6 The Master Field and Plant QC Plans shall be valid for the duration of one calendar year beginning on January 1st and ending on December 31st. The Master Plant QC Plan will also cover maintenance purchase order concrete for the year.

6. ACCEPTANCE SAMPLING AND TESTING

6.1 Acceptance sampling and testing is the responsibility of the Division. Quality control tests by the Contractor may be used for acceptance.

6.2 The Division shall sample and test for applicable items completely independent of the contractor at a frequency equal to approximately ten (10) percent of the frequency for testing given in the approved QC Plan. Witnessing the contractor's sampling and testing activities may also be a part of the acceptance procedure, but only to the extent that such tests are considered "in addition to" the ten (10) percent independent tests.

6.3 Results from independent tests conducted by the Division for gradation, entrained air, consistency, and strength will be plotted on the Contractor's quality control charts with a red circle but are not to be included in the moving average. When the Contractor's tests are witnessed, the results are circled on the control chart in red and are to be included in the moving average calculations.

6.4 Results from both independent tests and witnessed tests will be evaluated in accordance with MP 700.00.54. If a dissimilarity is detected, an investigation shall be immediately initiated to determine the cause of the dissimilarity.

7. ABSENT TESTING OF MATERIAL

7.1 If the Contractor fails to perform testing of the material in accordance with the Contractor's Division Approved Quality Control Plan, payment for the portion of the item represented by the absent test shall be withheld, pending the Engineer's decision

whether or not to allow the material to remain in place. Testing includes both performing the test and submitting the results as per MP 109.00.21.

7.1.1 If the Engineer allows the material to remain in place, the Division shall not pay for the material represented by the absent test. However, the Division shall pay for the cost of the placement of the material, including labor and equipment. The invoice or material supplier cost (if applicable), determined at the time of shipment, shall be used to calculate the cost of material when evaluating the total cost of labor and equipment.

Ronald L. Stanevich, P.E.
Director
Materials Control, Soils and Testing Division

MP 601.03.50 Steward – Cement and Concrete Section
RLS:Tt
Attachments

For Committee, no change to Attachments