This Memorandum updates the VDOT Materials Division Manual of Instructions, Chapter IV, Section 416.01(e) to harmonize with the VDOT Road and Bridge Specifications, Section 217.05. An important feature is that VDOT truck tags will no longer be used to demonstrate truck approval. All trucks coming to a VDOT project are certified by the HCC producers VDOT Certified Plant Technician as meeting the requirements for all items listed in the VDOT Hydraulic Cement Concrete Plant Inspection Report and the VDOT Truck Inspection Report. Full compliance with this Memorandum is required by February 1, 2015.

Replace Section 416.01(e) with the following:

(e) Inspection of Plant and Equipment

1) Approval

Hydraulic cement concrete (HCC) plants and trucks are approved by one of the two following programs:

(a) National Ready Mixed Concrete Association (NRMCA) Certification

Producers electing to use NRMCA Certification for inspection of plant and trucks for VDOT approval are required to complete and sign the form in the Appendix, page, IV-A-1.
(b) Self-certification

HCC producers electing to perform self-certification for inspection of both plant and trucks are required to complete and sign all of the forms supplied in the Appendix, pages IV-A-1 thru IV-A-6.

Failure to comply with VDOT requirements for plant and truck certification may result in removal of the plant as an approved HCC supplier, deletion of trucks for use on VDOT projects and/or decertification of the producer’s VDOT HCC Certified Plant Technician. Documentation must be available to the District Materials Section that demonstrates compliance with one of the two approval programs. Material source code numbers for plant locations will be obtained through the Materials Division/Physical Laboratory. The frequency of self-inspection shall be at a minimum the same as the NRMCA inspection frequency.

2) Documentation Requirements

Documentation consists of submitting a Certificate of Compliance to the District Materials Section. This Certificate of Compliance must be signed by the HCC producer’s VDOT HCC Certified Plant Technician. The following documentation shall be retained by the HCC producer and be available to the District Materials Engineer (DME) upon request:

1. A current List of Approved Trucks for use on VDOT projects
2. VDOT HCC Plant Technician Certification(s)
3. Approved HCC mix designs shall be kept on file
4. A current Truck Inspection Report for each approved truck
5. A current Hydraulic Cement Concrete Plant Inspection Report

3) Plant/Truck Monitoring

Before HCC is provided to a project, the District Concrete Technician may arrange for a visit to the plant. Based upon the Technician’s experience and knowledge of the District’s projects/workload and understanding of potential risks, the Technician may elect to examine any or all of the following:

- The inspection reports for the plant and transit mixing trucks (herein referred to as Trucks).

  The District Concrete Technician verifies the HCC producer’s inspection reports, both those features that are reported as compliant and those that are problematic with particular attention to the most critical concerns at the plant for producing quality concrete. Regardless of what is found in the reports, the Technician may decide to inspect any or all plant operations and trucks.

- Checking any number of trucks for drum cleanliness and blade wear. If a truck is found to be out of compliance, the District Concrete Technician will draw a line through the truck listed on the HCC producer’s List of Approved Trucks, date and sign the deletion. To reapprove the truck a new Truck Inspection Report must be completed demonstrating compliance to all items on the inspection report. The District Concrete Technician may choose to be present for the re-inspection of non-compliant trucks.
Plant batching operations. If any areas of non-compliance are noted while inspecting the plant, the District Concrete Technician will fill out a new Virginia Department of Transportation/Materials Division Hydraulic Cement Concrete Plant Inspection Report denoting areas of non-compliance, signing and dating the report at the time of the review. On a follow-up visit, the areas of non-compliance will be inspected to ensure proper action was taken by the producer to correct the problems.

Also, it is advantageous that an inspection take place as early as possible before HCC is delivered to the project site. If batch testing is part of the contract requirements, additional portions of the report may be monitored at that time. While the entire inspection of both plant and trucks may be performed, the District Concrete Technician will determine how much verification is needed. In the case where the District Concrete Technician has verified the HCC producer’s inspection report within the last few months, less verification may be justified. A VDOT HCC Plant Certified Technician shall be available during production for VDOT projects. HCC production shall be in accordance with approved HCC Mix Designs. The intent is for some portion of the inspection process to be verified by the District Concrete Technician during each plant visit.

4) Non-conformity Resolution Procedure

The District Concrete Technician will work with the HCC producer making a resolute effort to resolve non-compliant inspection action items. The accumulation of one or more of the violations below (not all inclusive) may result in the removal of the approved status of an HCC producer.

a) Supplying HCC without using an approved HCC mix design
b) Inadequate maintenance of trucks/equipment (documented in the Truck Inspection Report and/or the Hydraulic Cement Concrete Plant Inspection Report)
c) Not performing the self-inspection or having a valid NRMCA inspection within the prescribed inspection frequency
d) Failing to comply with specification requirements

When an HCC producer fails to act within 5 business days on the notification(s) of non-compliance issued by the District Concrete Technician, the DME may begin the process of removing the approval status of an HCC producer. The DME will follow the steps below:

1. The DME will review the District Concrete Technician and HCC producer’s inspection documentation within 5 business days of notification by the District Concrete Technician. If the DME can resolve the matter with the HCC producer, there will be no need to proceed to step 2. If the matter is unresolved, then the DME will proceed to step 2.
2. The DME will issue a written notice of placing the HCC producer on probation.
3. The probation will continue until the inspection action items are resolved and the HCC producer has demonstrated for at least 3 months of providing HCC to VDOT projects that the inspection action items are not recurring issues.
4. If 5 business days after the date of being notified of being on probation and failing to resolve the inspection action items, the DME may remove the HCC producer, providing written notification of removal. The written notification will outline what actions the HCC producer needs to take to regain an approved HCC producer status.
5. When the HCC producer regains the approved status, the HCC producer will be on a probationary status for a 3 month period demonstrating continued inspection compliance.
Suspensions of HCC Concrete Plant Technician Certifications will be handled in accordance with the VDOT Materials Division Manual of Instructions, Sec. 115.07 Suspension of Certification.

**Appeal Process:** If the decision is to place the HCC producer on probation or remove the approval status of the HCC producer, the HCC producer has 5 business days to appeal the decision in writing to the VDOT Concrete Program Manager. The Concrete Program Manager or designated representative will review the matter and render a decision within 5 business days. If the HCC producer does not agree with the decision of the Concrete Program Manager or appointed representative, then the HCC producer may appeal to the State Materials Engineer or designated representative in writing within 5 business days after the Concrete Program Manager’s decision. The State Materials Engineer’s (or designated representative) decision is final and will be made within 5 business days after receiving the HCC producer’s written appeal. During the Appeal Process the decision by the DME stands until a ruling is made.
Hydraulic Cement Concrete (HCC) Producer Name - ________________________________

HCC Producer Location - _____________________________________________

_____________________________________________

_____________________________________________

This signed document certifies:

1. that the plant location above has either (please circle one):
   a. a current/valid NRMCA Certification for plant and/or trucks
   b. or completed VDOT Inspection Reports for plant and/or trucks

2. that all plant equipment and trucks used on VDOT projects meets or exceeds the requirements listed on the Truck Inspection Report and the Hydraulic Cement Concrete Plant Inspection Report.

3. a List of Approved Trucks is on file for this plant location.

If a truck is sent from another producer’s plant (either an approved source or not an approved source for HCC), the List of Approved Trucks must be updated for this plant location. Proof of current truck inspection must be on file at the plant location where the truck is being dispatched.

This documentation will be made available to VDOT upon request.

Signed by - _____________________________________________________ (print name)

___________________________________________________ (signature)

(VDOT HCC Certified Plant technician)
Date of Inspection - ______________________

Truck Number - _________________________

Inspected by - _________________________ (signature)

_________________________ (print name)

Hydraulic Cement Concrete (HCC) Producer Name - ___________________________

HCC Producer Location - _________________________________________________

_________________________________________________

_________________________________________________

If the answer to any question below is “No”, then the truck is not approved for use of VDOT projects.

**Truck Number:**

Is it visible and legible? __________

**Water Meter/Dispensing Device:**

Does the water meter function properly? __________

Is the water dispensing device working properly? __________

**Drum Condition: (must open the inspection plate/hatch to verify)**

Is there abnormal wear on the blades? __________

Is there abnormal buildup of concrete in the drum and/or on the blades? __________

Is the condition of the drum satisfactory? __________

Does the drum rotate both clockwise and counterclockwise with variable speed? __________

Are the chutes non-aluminum and satisfactorily clean of hardened concrete? __________
Manufacturer’s Plate:

Is the manufacturer’s plate legible and the correct plate for the truck?  __________

Revolution Counter:

Does the revolution counter work (verify 1 count per drum of rotation by rotating drum 5 times to ensure the counter reads 5)?  __________

Back-up signal working properly?  __________

Note: This document addresses the production of quality HCC and does not absolve the HCC producer from complying with the VDOT Work Area Protection Manual and other Federal and State regulations that govern the operation of HCC transit mix trucks.

Comments: (Please comment on any features that are near borderline or may potentially be out-of-compliance for the next inspection that could lead to the production of objectionable concrete.)

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________________________________________________________________________________
Virginia Department of Transportation/Materials Division
Hydraulic Cement Concrete Plant Inspection Report

Date of Plant Inspection - ____________________
Inspected by - ____________________________ (signature)
_________________________ (print name)

Hydraulic Cement Concrete (HCC) Producer Name - ___________________________
HCC Producer Location - _________________________________________________
_________________________________________________
_________________________________________________

Personnel:
Is there at least one VDOT Certified Plant Technician on staff?     ___________
The names and certification expiration dates should be verified as current.

Records:
Are the records stored in a location that prevents damage to the records?     ___________
Are the records maintained for at least five years?     ___________

Tickets:
Are the batching tickets legible and contain the sufficient information?     ___________
The sufficient information should include the date/time of batching, batch weights and batcher name.

Bins and Weigh Hoppers:*
Are bins and weigh hoppers clean and in good operating condition?     ___________
Are the bins and weigh hoppers discharging freely and completely?     ___________
Is there a separate hopper for the cement?     ___________

Materials Source Verification:
Are the materials (admixtures, aggregates, cement, water, etc.) being used in the HCC VDOT approved (a current approved HCC mix design can be used a proof of this requirement?     ___________

Materials Storage:* 
Are systems in place and working so as to keep the aggregates in at least a saturated-surface dry condition?     ___________
Are the aggregates segregated?     ___________
Are the aggregate piles contaminated?     ___________
Are the aggregate piles well-drained?     ___________
Does the cement silo keep the cement dry and free of clumps?     ___________
Are the admixtures stored in a non-freezing environment?     ___________
Accuracy of Scales and Dispensers:
Are the scales and dispensers capable of the accuracy required for the specification? ___________
Have the scales been checked for accuracy and have a current calibration certificate/sticker (within the last 6 months)? ___________ Date of Calibration Verification - ___________
Are the dispensers working properly and checked for accuracy? ___________
Is the admixture measuring device transparent? ___________
Is the admixture dispensing device capable of manufacturer’s recommended procedures for dispensing admixture into the mix? ___________

Moisture testing of Aggregates:
Does the facility have the necessary equipment in good operating condition to perform moisture tests on the fine and coarse aggregate? ___________

Equipment:
Does the facility have equipment meeting the requirements of ASTM C 231 (C173 for lightweight concrete if applicable) and ASTM C143 for testing air content and slump? ___________

Water:
Is the water from an approved source? ___________

Batchers:
Have the HCC batchers (if different from the HCC VDOT Certified Plant Technician) been properly trained to ensure the HCC produced meets the approved mix design requirements? ___________

Comments: (Please comment on any features that are near borderline or may potentially be out-of-compliance for the next inspection that could lead to the production of objectionable concrete.)
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* These items will be filled out on the self-certification program, but are not required under a nationally recognized certification program. However, during the inspection all items on this list may be checked.

IV-A-6
cc: Commissioner
Chief Engineer
Deputy Chief Engineer
Division Administrators
Residency Administrators
District Materials Engineers
District Construction Engineers
District Maintenance Engineers
Area Construction Engineers
Virginia Asphalt Association

Virginia Center for Transportation Innovation and Research
Virginia Ready-Mixed Concrete Association
Precast Concrete Association of Virginia
Virginia Transportation Construction Alliance
Virginia Dept. of Minority Business Enterprise
Federal Highway Administration
American Concrete Paving Association
NE Chapter, Southern Region
Old Dominion Highway Contractors Association