CHAPTER I – GENERAL INSTRUCTIONS

SECTION 101 PURPOSE AND SCOPE OF MANUAL

The Materials Division of the Department of Transportation operates under the supervision of the State Materials Engineer, and in accordance with instructions from the Chief Engineer.

The Manual of Instructions for the Materials Division outlines specifically the practices for field sampling, inspection, testing, and control of materials incorporated in the construction or maintenance of highways, structures, bridges, and incidentals. These instructions are to be followed in order to achieve uniformity in the control and use of materials throughout the State.

The Book of Specifications and other contract documents (Supplemental Specifications, Special Provisions, Copied Notes, etc.), the Manual for the Materials Division, the Manual for the Construction Division, and the Manual for the Maintenance Division, are expected to cover the range of written instructions. There are to be no changes made in procedure as given in the Manual unless special written instructions are issued by the State Materials Engineer. Occasionally, more detailed supplemental instructions or procedures will be issued separately by the Materials Division that will only be covered generally in the Manual of Instructions, but will be considered as a part of the Manual so far as official procedure is concerned. Some examples of these are the Virginia Test Methods Manual, the Nuclear Moisture-Density Testing Procedure Manual, Guide for Statistical Quality Control, etc.

SECTION 102 MISSION AND GOALS OF MATERIALS DIVISION

The mission of the Materials Division is to assist the Department in building and maintaining a safe and efficient transportation system through the application of current materials engineering and testing procedures.

The goals of the Materials Division are to:

(1) Provide preliminary engineering assistance to design units.

(2) Establish the appropriate quality level for materials to be used in construction and maintenance.

(3) Assure, through tests and observations that materials proposed for use by Contractors and Suppliers conform to contract and purchase order requirements.

(4) Provide technical assistance to Field and Central Office operational Divisions in matters relating to the proper handling, use, and documentation of materials.

All materials purchased by the Department and all materials purchased by Contractors for use in construction and maintenance work must be approved by the Materials Division, or its authorized representative, before they may be used. On all projects involving Federal funds, the Materials Division must certify the quality and quantity of each type of material to the Federal Highway Administration before the final voucher is approved for payment. To this end, inspection is performed at nearly all asphalt terminals, aggregate quarries, etc., both within and without the State. In some cases, such as at steel and cement mills, materials inspection may consist of a program of Manufacturer's certification, coupled with periodic inspections of plant quality control procedures by Materials Division personnel. Special inspection can be promptly arranged in unusual circumstances where it is advantageous to the Department and to the progress of the work.

SECTION 103 INPUT CONCERNING MATERIALS DIVISION POLICY AND INSTRUCTIONS

Sec. 103.01 Improvement Recommendations

Criticisms or suggestions for improvement in Materials Division Policies and Instructions are invited. These should be made preferably in writing directly to the State Materials Engineer, or directed to the State Materials Engineer through the District Materials Engineer.

Sec. 103.02 Process for Revisions

The process for making changes to the Materials Division Manual of Instructions is intended to involve all elements that may be impacted by a change or revision. While no process can be entirely inclusive, as well as address every situation, the following approach is to be used as a baseline when making changes.

1. The idea/need for a revision or change is observed by any person.
2. A lead person (owner) of the change is identified and creates a draft.
3. The Assistant State Materials Engineer (ASME) is notified on behalf of the State Materials Engineer (SME) and recommends to pursue or not to pursue the change/revision. The ASME will track the progress of the proposed change, but the owner is responsible for ensuring all affected entities are involved in the development process and that the changes are consistent with Section 103.03.
4. Errors that are obvious and do not impact operations can be changed and a Materials Division Memorandum (MD) is issued.
5. Changes that affect other Divisions or industry, will be first drafted by the owner of the change, reviewed by the ASME, and then sent out to the affected parties for review and comments by the owner, this then becomes an iterative process until the document is complete. The MD is then sent to the ASME for review for issuance by the SME.
6. Changes that only impact the Materials Division are reviewed internally until the document is complete and then the MD is sent to the ASME for review before issuance by the SME.

To provide a succinct, visual depiction of the process, the following flow chart illustrates the process.

Sec. 103.03 Issuance of Materials Division Memorandum

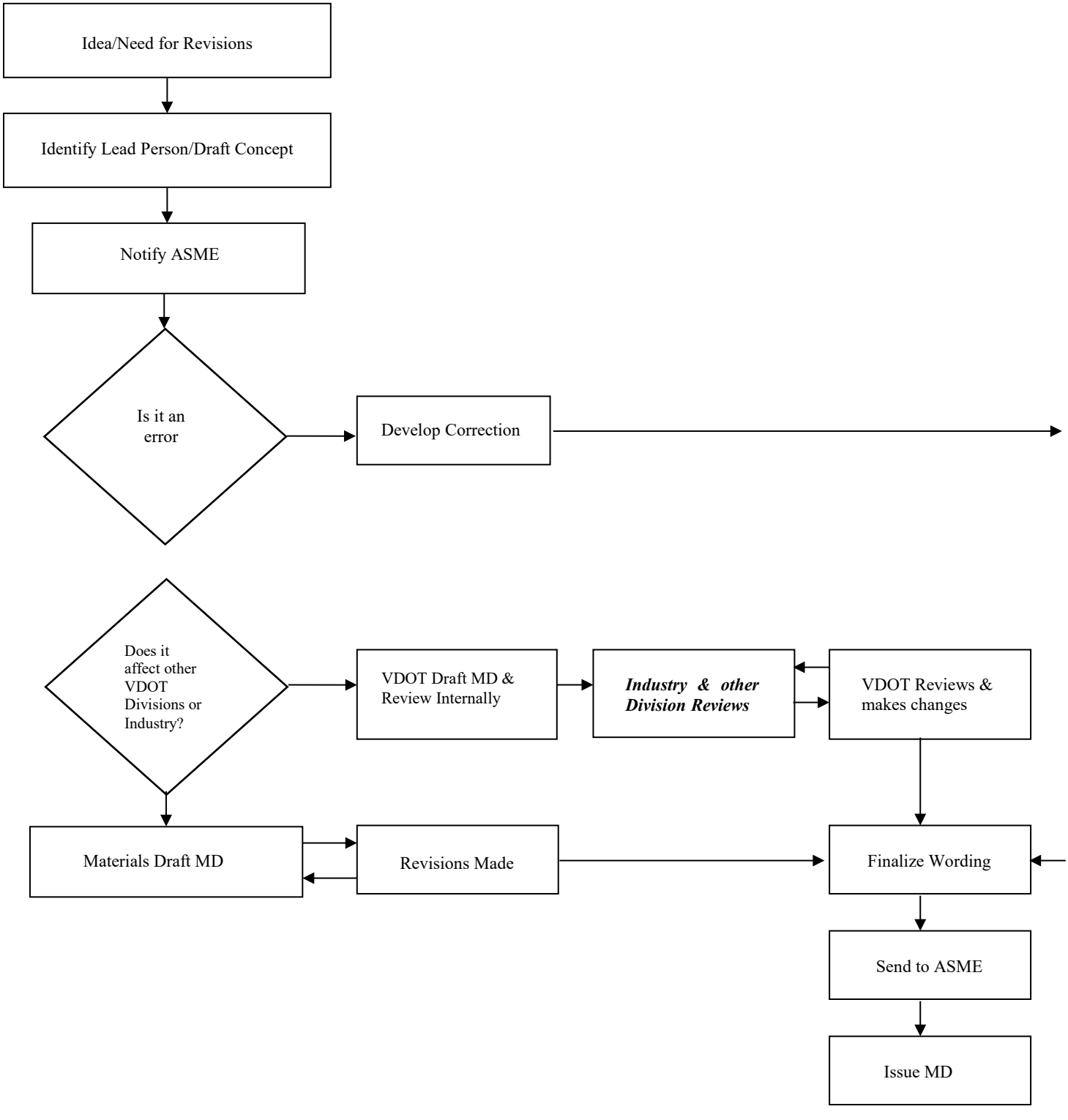
The Materials Division Memorandum, often referred to as an MD, is used to make modifications or changes to the Materials Manual of Instructions as well as, highlight those changes; it can also be used to convey information, direction and interpretation of policy that may not necessarily be in the Materials Manual of Instructions. The MD supersedes the portion of the Manual that has been changed. The MD will be posted on the Internet for a year, until the change is made in the Manual itself. MDs that are general communication will remain active indefinitely, unless there is a sunset clause.

The MD is issued on a template, and is only signed by the State Materials Engineer. It is assigned a number indicating the number of the memorandum and the year it was issued. For example MD 249-05 is the 249th MD that has been issued, and it was issued in the year 2005.

Changes that are made to the Manual are to be kept to a minimum. To preface the MD when changes are made, a summary of changes will be included. When changes are necessary, only the areas that need to be changed will be revised. In the text of the MD, it shall include the old section that is being revised, and the MD shall also include the new section to show what is being changed. The complete replacement of a section shall be avoided when possible. The old section will be shown as being lined out, the new section will be presented in italics and the existing section shall remain as is. This may be demonstrated as the example below:

Summary of Changes:
- Inclusion of Geologist's recommendations for scour
- Revision of distribution of Bridge Coring (BC) reports

FLOW CHART
REVISIONS TO THE MATERIALS
MANUAL OF INSTRUCTIONS



SECTION 104 RELATION OF MATERIALS DIVISION EMPLOYEES

Sec. 104.01 With Suppliers and Contractors

Relations of Materials Division employees with Suppliers of highway materials should be agreeably maintained at all times. Friendliness should prevail, but familiarity should be discouraged. The problems of the Supplier should be recognized. Advice can be offered that will assist in the production of acceptable materials, but the final choice or course of action is to be left to the Supplier.

Particular care should be taken not to issue any instructions to the Supplier, Contractor, his Superintendent or Foreman which can be construed as assuming superintendence of his work. Judgment should be cool, fair, and impartial, and arguments avoided. Knowledge of the work and material should be so thorough as to command respect. When differences of opinion arise, they should be referred to the District Materials Engineer or to the State Materials Engineer.

Instructions or orders for changes are to be given only to the Supplier, Contractor, his Superintendent, or his authorized representatives.

Employees should not place themselves under obligation to the Supplier or Contractor in any manner, as their judgment may be affected thereby, and their value to the Department seriously impaired.

Sec. 104.02 With the Public

Relations of Materials Division employees with the public are to be courteous and businesslike. Discussions of the policies of the Department of Transportation should be avoided. Employees of the Department of Transportation represent the State of Virginia in all their actions and duties. The motoring public expects our work to be accomplished in such a manner as to afford the greatest benefit and least inconvenience to their travel.

SECTION 105 SAFETY PRECAUTIONS

Personnel of the Materials Division are to follow rules of safety. A copy of the safety rules of the Department is given to each employee. The safety rules must be read, understood, and implemented at every level in the organization.

Sec. 105.01 Department Employees Visiting Plants

When employees visit plants to perform source inspection or monitor Quality Assurance operations, they are to comply with the safety rules applicable to that plant.

Sec. 105.02 Nuclear Safety Precautions

The VDOT Materials Division document Radiation Protection Program Manual for Portable Nuclear Moisture and Density Gauges, describes safety procedures to be used in handling these gauges. The manual is located on the VDOT Materials public webpage.

SECTION 106 GENERAL INFORMATION

Sec. 106.01 Information Required

(a) Domestic Materials Requirements for VDOT Federal Aid Projects ("Buy America" requirements and "BABA Requirements

Requirements of the current VDOT Special Provision SP102-000510-02 "Use of Domestic Materials" shall be followed for all VDOT federal aid projects. This is commonly referred to as the "Buy America" requirements for iron and steel products.

Requirements of the current VDOT Special Provision SP107-003000-00 "Build America, Buy America Act Requirements for Construction Materials" shall be followed for all VDOT federal aid projects. This is commonly referred to as the "BABA Requirements" for Construction Materials and also currently applies to the manufactured products as described in the special provision.

VDOT does not certify materials or take responsibility for them as meeting these "Buy America" or "BABA Requirements", the Contractor has this responsibility and must submit this certification on each VDOT federal aid VDOT project as necessary.

Producers, Suppliers, or Manufacturers on VDOT Materials Approved Lists, or any other suppliers of materials to VDOT, must be able when supply material permanently incorporated into the VDOT federal aid projects to provide documentation that proves unbroken traceability of the covered materials' lot and heat number from initial melt (for iron and steel products) or from raw materials origin (for construction materials) through all stages of manufacturing and modifications and through all stages of procurement, including for brokers who may never even receive shipment of materials.

(b) Estimated Quantities of Materials

Immediately upon the award of every construction contract, the District Materials Engineer, or his authorized representative, is to prepare a list of the estimated quantities of materials required for the execution of the contract and promptly make the necessary distribution of copies, as outlined in Sec. 800. The list shall show the estimated quantity of each item together with the specification designation.

When a loose-leaf type materials notebook will be used by the Project Inspector, the District Materials Engineer is to furnish the list of estimated quantities on loose-leaf sheets suitable for direct placement in the notebook.

See Chapter 7 for details in handling the materials acceptance and Materials Notebook program.

(c) Source of Materials

Contractors are to be advised by letter and/or verbally at the pre-construction conference that the Source of Materials form is to be submitted to the District Materials Engineer, Project Inspector, Project Engineer or other designee as a digital file. The Contractor should be provided with a computer diskette containing the digital file template(s) of the Scheduling & Contract Division's Form C-25 for use in listing the information to be submitted.

The District Materials Engineer's office will, upon receipt of the contractor's submittal, immediately determine the method(s) of acceptance for routinely encountered materials and/or material sources. The District Materials Engineer will forward portions of the submittal containing non-routine items to the Materials Division's Central Office for processing. The Central Office of the Materials Division will handle the processing of non-routine items, including the notification and assignment of testing responsibilities to other internal divisions. The Central Office of the Materials Division will advise the District Materials

Engineer of any noted deficiency regarding the information on the non-routine items. If, for any reason, the contractor's submittal is incomplete, incorrect or needs clarification, the Central Office of the Materials Division will return the Contractor's submittal to the District Materials Engineer for resolution of the problem. Upon resolution of such deficiency, the submittal will be returned to the Central Office of the Materials Division for processing. After processing, the submittal will be returned to the District Materials Engineer for final distribution.

The District Materials Engineer will send copies of the processed Source of Materials to the Project Inspector, Project Engineer, the Contractor, and any other District Materials Engineer who has been assigned testing/monitoring responsibilities. The Project Inspector should not approve the use of material until verification is received that the Source of Material has been processed or otherwise receives a processed copy.

PROCESSING MATERIAL CERTIFICATION SUBMITTALS

After a Source of Materials submittal has been processed and indicates that a Manufacturer's Certification is required for material acceptance, the Project Inspector and Contractor are responsible for securing such documents and sending them to the District Materials Engineer for the Department's review and approval. The District Materials Engineer is to review the certification documents for obvious omissions (such as lack of quantities or project numbers, etc.) and then submit four (4) copies of the documents to the Central Office of the Materials Division for technical review and processing. If the Contractor's submittal is incomplete, incorrect or is in need of clarification, the Central Office will return the documents to the District Materials Engineer for resolution of the problem. Upon correction of the deficiencies, the District Materials Engineer will return the submittal to the Central Office. The Central Office will then have the documents reviewed by the appropriate technical staff and, if found to be satisfactory, assign a certification number (i.e. a CT-xxxx number) to the submittal packages. The Central Office of the Materials Division will make the distribution of the copies of the approved Certification to the Project Inspector, Contractor and the District Materials Engineer submitting the documents.

(d) Job-Mix Formula and Mix Design

Mix designs are to be submitted in time to be approved prior to anticipated use. Hydraulic cement concrete mix designs and component materials sources shall be submitted on Form TL-27, while those for asphalt concrete and central - mixed aggregate shall be submitted on Form TL-127. A separate job-mix formula or mix design must be submitted for each plant production facility providing material for Highway use and for each such mix produced by each plant. In addition, for hydraulic cement concrete, a separate design must be submitted for each class of concrete and for each slump desired for each class to be used. The design is intended to be valid for as long as the material sources and quantities do not change and as long as the material continues to perform satisfactorily. Small changes in quantities for moisture adjustment, etc., are not to be considered sufficient reason for a new mix design. A separate design is to be submitted for any significant change made.

Each approved design is to be assigned a design number which should be referenced on the Contractor's source of materials form. The assigned number should include the District number, serial number, and the year of approval.

In the case of hydraulic cement concrete and asphalt cement used in asphalt concrete, Contractors should be advised that Form TL-27 and TL-127 respectively are considered as substitutes for the source of materials letters required in Paragraph (b) above. It will not be necessary that a separate source of materials letter, in addition to these forms, be submitted, listing the sources of the asphalt cement and the individual components of hydraulic cement concrete.

(e) Shipping Instructions to Producers

When orders for the shipment of highway material are placed directly with the Producer, it is necessary that the Producer be given the route, project, and the county to which the material is to be charged.

Sec. 106.02 Sampling of Materials in the Field

The District Materials Engineer is to maintain supervision over the taking of samples in the field for submission to the Laboratory for testing. (See Sec. 201.) No person should take samples unless properly instructed.

When instructing subordinates, the Engineer should emphasize the importance (1) of submitting representative samples from all shipments of materials not bearing evidence of having been tested and approved, (2) of submitting such samples promptly, and (3) of submitting along with the sample all required information pertaining thereto correctly and in legible form.

Sec. 106.03 Compliance with Specifications

It is necessary that materials Suppliers and Contractors be advised that they are expected to produce materials meeting approximate mean values, where maximum and minimum limits are given in the specifications. This applies especially to such materials as asphalt concrete, aggregate base, and subbase material, etc. It is recognized that most materials contain some fluctuation and variation, and tolerances have been provided to allow for this.

Where materials Suppliers consistently produce borderline material directed toward the outer limits of the specification tolerances or falling outside of specification tolerances, they should be advised of the necessity of producing a uniform specification material. This may require that the Producer initiate adjustments in materials production, based upon quality control determinations to minimize the frequency and severity of deviation from the center of the specification or job-mix range.

A refusal on the part of the Contractor to comply with a request to initiate adjustments in materials production or to revise the design to meet specification requirements, will be justification for the Department to suspend its approval of the plant as an approved source, until such time as the requested corrections in production have been made or a new job-mix has been approved. It should be pointed out to the Producers and Contractors that compliance with specifications will eliminate, to a great extent, failing test results and will reduce the necessity for price adjustments.

SECTION 107 SCALE PROGRAM

Truck and hopper scales used in weighing material for Department work are to be certified and sealed, as outlined in the Road and Bridge Specifications. Batch test weights are also included in this policy. The District Materials Engineer, in whose area the plant is located, will be responsible for initiating these instructions.

Sec. 107.01 Certification of Batch Test Weights

The 10 fifty-pound (225 kilogram) batch test weights are to be calibrated and certified, as outlined in the Road and Bridge Specifications.

Test weights having drilled or formed holes, other than the adjustment cavity on the sidewall, are not acceptable. The likelihood of dirt, cement, asphalt, or other foreign material accumulating in the holes makes this type of test weight unsatisfactory for plant use.

Test weights, in order to be certified, must conform to Weights and Measures' requirements for a Class C test weight. Such weights must have a sealing cavity for calibration, and the cavity must be of such design that its opening can be readily capped and sealed. Additional information is available upon request from Weights and Measures concerning sources where acceptable test weights may be purchased.

Sec. 107.02 Certification of Scales

(a) The following instructions will cover all situations requiring the sealing of scales, but will not be limited necessarily to the following situations:

(1) When plants and scales are initially set up.

(2) When scales are moved from one location to another.

(3) When there has been more than seven months since the last inspection by the Office of Product and Industry Standards (OPIS) / Virginia Department of Agriculture and Consumer Services (VDACS) or an approved private scale service company.

(4) When scales are suspected or determined to be out of tolerance or adjustment at anytime during operation, regardless of when previously sealed.

(b) The following procedures should be used in obtaining compliance with scale certification requirements:

(1) The Scale Owner, whether it be the Material Producer, Supplier or Contractor, shall determine the date on which the scale will be needed. Should inspection and sealing of the scales be required under any of the four above noted conditions, then the Scale Owner shall contact a scale service company licensed by (OPIS) / (VDACS). The scales are required to be inspected twice per year. A producer may use an OPIS/VDACS inspection as one of the required inspections however it is the producer's responsibility to obtain the service of a private scale company when OPIS resources are not available. There shall be no less than six to no more than seven months between inspections to assure the scales are in compliance with specifications. Scales that have not been inspected within the time frames requested without a substantial reason can be considered to be out of tolerance, therefore no more materials will be purchased without review.

(2) The scale manufacturer's representative or repairman will have a definite Scale Technician Service and Test Report that has been established or approved by Weights and Measures, to follow when checking the scales.

(3) One copy each of the Scale Technician Service and Test Report, when properly filled out by the scale repairman, shall be given to the scale Owner and Weights and Measures. The scale Owner shall

be responsible to see that the District Materials Engineer receives the copy so designated. This must be signed by the person inspecting the scale, and must indicate whether the scale is satisfactory or unsatisfactory for use, in accordance with the requirements of National Institute of Standards and Technology, Handbook 44, corrected through the current year. The scale Owner's copy of the report is to be posted in the scale house or in the office close to the scales, where it is readily available to anyone desiring to refer to it.

(4) Scales shall not be placed in, or returned to, service by a scale repairman, unless it meets all requirements of National Institute of Standards and Technology, Handbook 44, outlined in Item 3 above (also see Item 6). When scales have been "tagged" rejected or condemned by Weights and Measures, only they can remove the tag and return scales to service.

(5) Scale repairmen must have and use at least 500 lbs. (225 kg) of test weights on hopper type scales and at least 20,000 lbs. (9050 kg) of test weights on motor truck scales. Strain load tests shall be conducted when scale capacity exceeds the test weights used.

It is the intent that the 20,000 lbs. (9050 kg) of test weights used on motor truck scales be transported on a single truck, whose vehicle weight combined with the test weights will approach the range of loads being weighed on the scales.

The sections of the vehicle scales should be checked at increments up to and including 20,000 lbs. (9050 kg) using the test weights. Next, the sections should be checked with the test weight transport vehicle and a load of 20,000 lbs. (9050 kg) of test weights. In the event the combined weight of transport vehicle and test weights is less than 44,000 lbs. (19,950 kg), an empty or partially loaded truck which weighs approximately the same as the combined weight of the transport vehicle and test weights is to be weighed and test weights added to the scale platform to bring the total load to 44,000 lbs. (19,950 kg) or greater.

District Materials representatives should review scale service reports and/or occasionally observe a 6 month service check to assure themselves that 20,000 lbs. (9050 kg) of test weights are being used, that sections of the scale are being checked both with 20,000 lbs. (9050 kg) of test weights and with the combined weight of the transport vehicle and 20,000 lbs. (9050 kg) of test weights, and that a gross platform load of 44,000 lbs. (19,950 kg) or greater is being used.

(6) If Weight and Measures can test and approve the scale prior to date of use or date of seal expiration, ignore the remainder of Items 6 and 7, and proceed to Item 8 for further instructions.

If Weights and Measures cannot test and approve the scales prior to the date of seal expiration, or the anticipated date of use of new or newly relocated scales, the District Materials Engineer may issue temporary approval for use of scales. In making this approval, the District Materials Engineer shall determine whether a conscientious effort was made by the scale owner to obtain the services of Weights and Measures prior to expiration of seal or date of use.

For temporary scale approval to be issued, the following actions must occur:

a. The scale owner shall request by letter to the District Materials Engineer for an extension of time.

b. The scale owner shall provide a signed Scale Technician Service and Test Report, indicating that the scale meets the requirements of Handbook 44. The inspection should have been performed within the last thirty (30) days.

c. The District Materials Engineer shall notify the scale owner in writing of temporary approval.

The scale must be inspected and sealed by Weights and Measures as soon as possible if the scale owner expects to continue using the scale.

(7) If the report indicates that the scale does not meet the requirements of Handbook 44, the District Materials Engineer will immediately notify the scale Owner by phone, and confirm by letter, that the scale has been taken out of service for Department work, until it has been properly repaired by the appropriate repairman and approved by Weights and Measures.

(8) Weights and Measures will give appropriate advance notice as to when they will check the scales. It is suggested that the scale Owner have the scale repairman who serviced the scale present at the specified time, to correct any minor deficiency immediately while the Weights and Measures official is present. The Weights and Measures official will not wait until major repairs are made, or if minor repairs require an unreasonable length of time to accomplish. The scale Owner will be responsible to see that the District Materials Engineer receives a copy of the Scale Inspection Report issued by Weights and Measures.

(9) If the inspection by Weights and Measures reveals that the scales are not functioning properly and if the necessary repairs or adjustments cannot be made by the scale repairman immediately, the District Materials Engineer will then notify the scale Owner by phone, and confirm by letter, that the scales have been taken out of service for State work until properly repaired and then sealed by Weights and Measures. No additional temporary approval will be given.

(10) Copies of all correspondence and reports outlined in Items 6, 7, 8, and 9 above will be sent to, or retained by, the State Materials Engineer, Administrative Services Officer, and District Materials Engineer. In cases which involve a contractual dispute, copies of all correspondence and reports noted in Items 6, 7, 8 and 9 will also be sent to the Construction Engineer and Residency Administrator involved.

Sec. 107.03 General Scale Requirements and Check Points

The following is some helpful information regarding scale accuracy:

(a) Single Draft Weighing

The length of a vehicle scale must be adequate to accommodate in its entirety the longest vehicle or vehicle combination. The total weight of a vehicle or combination is not to be determined by adding together the results obtained by separately and not simultaneously weighing each end of such vehicle or individual elements of such couple combination. The weight of a couple combinations may be determined by uncoupling the various elements (tractor, trailer), weighing each unit separately as a single draft, and adding together the results.

(b) Scale Platform

The scale platform should be of adequate strength. The surface should be reasonably smooth and in surface alignment with the pit coping. The opening between platform and coping should be approximately 25 mm, to prevent lodging of foreign matter between platform and pit wall. The surface should be kept in good repair, and cleaned when necessary or at least once a day.

(c) Scale Pit

The pit wall, floors, and piers for lever stands should be of good quality concrete. It is imperative that there be periodic cleaning, good pit drainage, and ventilation. Adequate room should be provided so that the inspector or repairman can move about the pit freely. The pit should be deep enough, and access thereto should be such, as to facilitate inspection, cleaning, and maintenance of scale parts.

(d) Elements in Pit

All stands should be set on concrete and securely anchored. All elements should be in alignment and level if so designed, with adequate clearance around live parts. Pivots and bearings of the main and extension levers should be well packed with grease to protect the parts against corrosion. All elements, levers, and structural steel should be painted periodically to minimize rust hazards. The weighbridge should be of steel, adequately strong to prevent deflection.

(e) Indicating Elements

Indicating elements should be rigidly mounted upon firm foundation, independent of the scale house, weighing room, or other similar structure. Adequate clearance must be provided around the indicating elements and the connections. On beam type truck scales, all connections not above the beam stand must be enclosed. Keep weighbeam bars and face plates in clean and legible condition. Keep automatic elements clean and the dash pot properly filled with oil. See that the poises on the notched weighbeams have pawls that fit the weighbeam notches, and that the spring-loaded weighbeam poises are strong enough to seat the pawl properly in the weighbeam notches. See that the poises on the weighbeam, tare bar, frictional bar, and tare bar on automatic - indicating scales, when they are pushed as far as they will slide in the zero direction of the weighbeam, give a correct (zero) indication. Any loose material used for the purpose of balancing the weighbeam must be secured so that it cannot shift or be knocked off, thus affecting the balance condition of the scale. See that the weighbeam is centered in the fulcrum stand bearing and pivots in loops, and that, when weighbeam is correctly balanced in center of trig loop, the amount equal to two (2) minimum graduations on the weighbeam will hold the weighbeam to the top or bottom of the trig loop. See that the operations of application and removal of unit weights are positive, and that the value of the unit weights in place at any time is clearly indicated on the reading face of the dial.

(f) Correct Balance

Keep the beam scale-weighbeam tip in center of trig loop with all poises at zero. The automatic scale indicator on dial face must be pointing to zero, and the printer dial reading must indicate zero. Zero balance should be checked after each five (5) drafts or more often if conditions tend to change the weight of the platform.

(g) General

A scale is not to be used for weighing a load totaling more than the capacity indicated on the scale by the manufacturer. Weighmasters must have an unobstructed view of the entire scale platform. The indicating elements, the lever system, and the underside of the load receiving elements of a scale shall be adequately protected against wind and weather effects.

(h) Temporary Test on Truck Scales

Acquire correct (zero) balance, place loaded truck on scale platform with rear wheels about .25 m from the end of platform, obtain correct amount, and record. Place truck on other end of platform in same manner and repeat the operation. Both ends should be within 2 lbs. (1 kg) per 1000 lbs. (500kg) of gross load of truck.

(i) Temporary Test on Hopper Scales

Acquire correct (zero) balance, making sure that all live parts of the scale are free from a binding condition. Distribute test weights on hopper and record amount indicated. This amount should be within 2 of the minimum graduations on the indicating element. On hopper scales, consideration should be given to suitability of position of the indicating elements, freedom from vibrations, disturbing air currents, and easy accessibility to facilitate daily cleaning of live elements of the scale.

(j) Documentation of Scale Checks

When District Materials personnel make a routine accuracy check of plant truck and hopper scales, the scale inspection should be documented showing the date of the inspection and whether or not the scales appeared to be accurate. If any inaccuracies in scales are evident, the particular details of the discrepancy should also be noted. The procedure for checking a set of truck scales begins with a quick visual inspection of the scales to see that material is not jammed into the areas around the platform or below the scales which would affect the weights. The readout unit is to be inspected for a proper "zero" and, if digital, that the readout unit has a seal on it to prevent tampering with adjustments inside.

Sec. 107.04 Recordkeeping and Scale Certification Data System

The Department has agreed to the following initiatives which are intended to assist Weights and Measures in providing their service to suppliers of VDOT. In addition, this system is a means of standardizing recordkeeping for the Bonded Weigh Program as a whole.

VDOT employees are not to contact representatives of Weights and Measures to request the sealing of scale. Requests must originate with a producer billing procedure. However, District Materials representatives are encouraged to develop a good working relationship with the regional VDACS inspectors responsible for his/her respective producer scales.

The Central Office of Weights and Measures should be contacted by our producers to request the scheduling of the scale sealing operation.

Each District is to furnish Weights and Measures inspectors in their region a list of in-state producers and the status of the service/sealing activity for the scales involved. The "Agriculture Report" (See Appendix No. I-B is an extracted report from the "Certified Scale Status Report" data base for the District. This report is to be issued at least once each 6 months and quarterly if practicable. District Materials representatives are to remind aggregate and hot mix suppliers of upcoming expiration of Weights and Measures certification. This courtesy reminder is to be given at least 4 to 6 weeks prior to the expiration date.

SECTION 108 BONDED WEIGHPERSON PROGRAM

The Department requires Contractors and Producers who furnish material by weight to have a certified and bonded Weighperson perform the weighing operations for such material furnished for State work. The District Materials Engineer is responsible for monitoring the Bonded Weighperson program.

Sec. 108.01 Surety Bond

The Weighperson's surety bond shall be issued in the name of the Producer's firm, rather than in the name(s) of the Weighperson(s). The Weighperson or other company representative shall see that a legible, physical or electronic copy of the surety bond is submitted to the District Materials Engineer, in whose District the shipping source is located. Upon expiration or any material changes, a legible physical or electronic copy of the continuation certificate or new bond shall be submitted to the District Materials Engineer. Continuation certificates shall indicate the exact name and bond number as the original surety bond. The Weighperson shall post his/her bond at the work area for ready reference of the District Materials Representative (See Sec. 800 for a sample surety bond).

Sec. 108.02 Certification of Weighperson

The District Materials Engineer or representative will meet with each proposed Weighperson to verify that the person is bonded, and understands and has the ability to follow VDOT specifications. The evaluation will be made on the basis of an oral evaluation utilizing the standardized questionnaire provided by the Central Materials Office:

(a) The Weighperson Evaluation Form

This form is not intended to be used as a numerically graded examination of the candidate. District Materials representative will provide each candidate a copy of the Weighperson Training Manual from which the questions are based. The candidates are to be allotted an appropriate amount of time to review and study this information prior to being orally quizzed on the material. If a candidate has problems recalling the answers to the questions, the District Materials representative should prompt or coach the candidate to a reasonable extent. However, if in the opinion of the representative, the candidate needs more study time to better prepare for the evaluation, an additional amount of time may be allowed before retesting. Upon successful completion of the Weighperson Evaluation, the District representative shall recommend the issuing of a Weighperson Certificate by the District Materials Engineer. The signed Weighperson Evaluation Form will serve as a record and documentation of qualifications. The weighperson will be evaluated at the weighing facility at where he/she is employed and evaluated in accordance with the requirement for the equipment he/she will be utilizing in the weighing process.

VDOT suggests the number of employees certified at an individual facility be limited to one (1) full time weighperson with one or two (2) persons serving as backup. The number may vary according to conditions that may occur in high production facilities. However, the number of active weighpersons should be kept in line with the production demands of a facility.

By limiting the number of employees VDOT certifies, VDOT can exercise more control over the Bonded Weigh Program and the amount of monitoring required at each facility. In addition, it is not good practice to encourage the producer to have numerous people certified who are not actively participating in the weighing operation. This effort would tend to protect the producer as well as the State by encouraging reliance on persons who are more thoroughly versed and familiar with the weighing process.

For each certification issued by the District, there shall be a corresponding Weighperson Evaluation Form on file in the District Office for the individual. The Department reserves the right to withdraw the certification of a Weighperson at any time during the term of the certificate if the performance of duties is not deemed satisfactory.

Upon satisfactorily demonstrating that ability, the Weighperson will be certified by the District Materials Engineer. A copy of the Weighperson's certification also shall be posted for ready reference of the District Materials representative. (See Sec. 800 for details of a sample Certification.) This certification will remain in effect as long as the Weighperson is actively participating in the weighing operation (does not exceed a period of 120 days without actually performing the weighing operation). The Producer is to notify the District Materials Engineer in the event a weighperson is used who has not performed the weighing operation within 120 days.

Following are listed particular items that will be reviewed by the District Materials Engineer or representative during the course of the examination of the Weighperson:

(1) Demonstrates ability to properly perform weighing operations.

(2) Demonstrates ability to prepare tare weights.

(3) Demonstrates and/or explains the system the Producer uses to identify lots and keep up with the running totals.

(4) Demonstrates an understanding of the Daily Summary Sheet, Form TL-102A. Explains how the sheets will be delivered to the projects, orders, etc.

(5) Has posted a copy of Surety Bond.

(6) Knows what to do in case of a malfunction.

(7) Knows who to contact in the VDOT in case of problems.

Sec. 108.03 General Guidelines for Weighperson

Following are general guidelines for Weighpersons:

(1) See that trucks are properly tared and in compliance with specifications and instructions.

(3) Assure that all weights are true and correct.

(4) Post Certification, Surety Bond, and a current Virginia Weights and Measures Scale Inspection Report. (See Sections 108.01, 108.02 and 107.02.)

(5) Maintain accumulative tonnage for lots and (IAS) Q.A. sampling.

(6) Submit Daily Summary Sheet, Form TL-102A, in accordance with specification requirements. (See Sections 108.04 and 800.)

(7) Provide information to the Department's (IAS) Q.A. Monitor and assist with spot-checks.

(8) Comply with all pertinent specifications and instructions.

Sec. 108.04 Duties of Certified (Bonded) Weighperson

Following are specific duties of Weighpersons performing weighing operations for material shipped to State work:

(a) Scale Operation

(1) Must be zeroed and platform clean before weekly taring, and must remain so while material is hauled to State projects or purchase orders.

(2) Must have current seal of Virginia Department of Agriculture and Consumer Services, Bureau of Weights and Measures. Must also have been tested within the last 6 months. (See Section 107.02)

(3) In case of scale malfunction, notify the District Materials Engineer or his/her representative.

(4) Weighperson is to assist VDOT representative in performing checks of scales.

(b) Taring Trucks

(1) The truck tare weight to be used in the weighing operation will be the weight of the empty truck with full tank(s) of fuel and the driver seated in the truck. The tare weight is to be recorded to the nearest 20 pounds (10 kg).

(2) For routine taring, the Weighperson shall tare each truck at least once a week during periods of materials shipment to State work. At the option of the Contractor, a new tare may be determined for each load. In that case, the requirement for full tank(s) of fuel will be waived and the most recent tare is to be used to determine net pay quantity.

(c) Weigh Ticket Information

(1) Weigh ticket is to accompany each load and is to include plant (company) name and location, date, load number, size and type of material, project, schedule, or purchase order number, and lot number and/or aggregate certification when applicable.

(2) For truck scales, tickets must include 2 printed weights, one of which must be the NET WEIGHT. For hopper scales, tickets must include the printed NET WEIGHT.

(3) Weighperson's signature (either handwritten signature, handwritten initials, or computer printout of name or initials) certifies that the truck has been properly weighed and that weights are correct. Tickets are not to be presigned.

(4) Tickets are to be checked for proper weights and completeness of information.

(5) When an error is found on a weigh ticket, the weighperson shall issue a manual (reprint) ticket, handwriting "Reprint" on it and circling or underlining the information that was corrected and issue this to The Department promptly.

(f) Daily Summary Sheet (Form TL-102A)

Weigh person is to furnish a Daily Summary Sheet (Form TL-102A), which is developed on the "Producer Lab Analysis and Information Details" PLAID website https://plaid.vdot.virginia.gov, for each order and/or contract. One TL-102A will be issued for each day of production per material/job mix shipped to state projects and purchase orders. The summary sheet shall contain all pertinent information, and shall be delivered to the person receiving the weigh tickets at the project or work area by the end of the next working day, or in accordance with the agreement made with the Department's representative 2 receiving the material. The Daily Summary Sheet shall be submitted through PLAID and delivered in person or electronically delivered for acceptance of materials being shipped. (See additional detail in Section 108.05.)

Sec. 108.05 Reconciling Weigh Documents

The person receiving the Daily Summary Sheet (Form TL-102A) shall reconcile it against the weigh tickets received at destination. If there are differences, they should be corrected or explained. The Producer or Contractor shall be notified of any differences between the quantities shown on the Daily Summary and the weigh tickets.

The Daily Summary Sheet shall be turned in at the completion of a project to the District Location & Design Section, who will check it against the final estimate and the weigh tickets. Upon completing the final estimate, the Daily Summary Sheet shall be retained in the project files, in accordance with published retention schedules. For H - Orders, the Daily Summary Sheets will be sent to the State Materials Engineer after final checks by the Residency Administrator's office.

Sec. 108.06 Department Monitoring

The Department will monitor the certified Weighpersons and plants furnishing materials by weight on a continuing basis, with a minimum of one (1) inspection per calendar quarter per plant, or more often if needed. Where significant discrepancies are found, follow-up inspections and reports should be made within 30 days of the original inspection. Where found, discrepancies shall be corrected immediately by the Weighperson, before allowing hauling to resume. The "Weighing Inspection Report" (Appendix No. I-A) shall be retained in the District for documentation with a copy going to the State Materials Engineer. In addition, the District Materials representative shall instruct the Producer to notify him/her when a less experienced temporary Weighperson is going to be used. This will give the District Materials representative an opportunity to visit the plant and review weighing and documentation procedures with the temporary Weighperson prior to weighing operations.

The District Materials Engineer, through the District Materials representative, will be responsible for conducting the weigh inspections. Following are listed items that are to be inspected or reviewed during the District Materials representative's visits:

(1) Check scales, printer system, and weighing operations.

(2) Check Weighpersons for knowledge of applicable specifications.

(3) Check delivery tickets for proper weights and information, including tare weights and lot numbers.

(4) Check on posted certificationsand bonds. (Dates, frequency, etc.)

(5) Check scale seals (proper dates) and Weighperson's Surety Bond.

(6) Check to see if Summary Sheets (Form TL-102A) are being handled properly. (See also Section 108.04 and 108.05.)

(7) Keep a diary or file on each Supplier, to include dates checked, copy of bond, corrections required, copy of certification, and instructions given, etc.

It is recommended that VDOT trucks continue to use E.D. number as truck I.D. number.

SECTION 109 THE DISTRICT MATERIALS ENGINEER

The District Materials Engineer is a field representative of the Materials Division and represents the State Materials Engineer in matters pertaining to the sampling, inspection, field testing, and use of all construction and maintenance materials. The Materials Engineer will assist the Division in the making of materials and performance surveys, and in any other materials assignment or duties outlined herein or by special request. He receives administrative supervision from the District Administrator and technical supervision from the State Materials Engineer.

SECTION 110 DUTIES OF MATERIALS TECHNICIAN SUPERVISORS AND TECHNICIANS

Materials Division technicians shall have the primary responsibility of carrying out any assignments related to materials sampling, testing, or inspection, or any functions related thereto, as may be directed by the Materials Engineer to whom they are assigned. Materials Division technicians will receive both administrative and technical guidance from the work unit to which they are assigned, either the Central or District Laboratory, as the case may be.

SECTION 111 OPERATIONS OF THE MATERIALS DIVISION

The operation of the Materials Division in the inspection and acceptance of materials generally takes three distinct administrative forms; that is, plant testing, laboratory testing, and visual or modified inspection, or a combination of these. Plant testing or inspection usually means that acceptance testing or inspection is conducted at the materials source, and may include such materials as asphalt concrete, pugmilled aggregates, or open graded aggregates. Plant inspection may also be coupled with additional laboratory testing and/or visual inspection before acceptance of materials is obtained, which would include such materials as pipe, asphalt materials, and again aggregates in certain situations. Each form of materials acceptance is covered in more detail below.

Sec. 111.01 Plant Testing and Inspection

Whenever it is economically advantageous, material for highway use may be inspected, sampled, and/or tested at the manufacturing plant or point of origin of shipment by the Materials Division, or its authorized representative. Shipments, in this case, will be sealed or otherwise marked to indicate that such inspection has been made. If facilities are available at the source, acceptance testing of the material may be performed at this point, or if unavailable or only partially available, the acceptance testing will be performed at another laboratory.

In any case, plant inspection is not infallible and any material, which on arrival at destination does not appear to meet the specification requirements, will be subject to retest or reevaluation, and acceptance or rejection will be based on the results of the retest or reevaluation. (See also Sec. 110.07.)

In addition, certain materials shipped by truck and paid for on a tonnage basis, such as asphalt concrete, dense graded aggregates (aggregate base, subbase, and select material), and other aggregates (fine aggregate, open graded coarse aggregate, and crusher run aggregate), used on construction projects and maintenance schedules, will normally have acceptance weight documented at the source. This does not apply to aggregate used in asphalt and hydraulic cement concretes or masonry. When any of the applicable above noted materials are shipped from the Producer to the job site, the bonded Weighperson will record the pertinent data of material shipped on Form TL-102A. It will also be necessary that these source documented materials be accompanied to the delivery point by a weigh ticket furnished by the Producer, as outlined in Sect. 800.

Sec. 111.02 Laboratory Testing

Laboratory testing includes any testing performed in a District or Central Office Laboratory of the Materials Division. This testing may be performed for various purposes; such as, acceptance testing, Q.A. monitor testing, routine quality testing, check testing, independent assurance testing, and other purposes, including release of shipments of approved materials by source Inspectors.

While District Laboratories are responsible for their own internal inspection, the appropriate Central Office Laboratory conducts inspections of all District Laboratories annually. The District Quality Review Checklist (TL-138) provided in Section 800 will be used by Central Office Laboratory personnel for review of District Laboratories that are AMRL/CCRL accredited.

Sec. 111.03 Visual Inspection

Visual inspection at the job site is to be conducted on all materials, regardless of whether previously approved or not, as outlined in Sec. 110. However, the term "visual inspection" also has another meaning in regard to materials acceptance. There are certain materials that, under certain circumstances, may be accepted at the job site on the basis of modified inspection, requiring only visual inspection or visual inspection supplemented with Manufacturers' certifications and/or occasional check testing by the Department. Normally, these cases will not require Department material test or inspection reports for acceptance.

These circumstances include (1) very small quantities of uninspected or untested material received on a project, not in sufficient quantity to permit a test sample to be taken without causing a shortage of the material; (2) certain materials outlined in Sec. 207 received in amounts not exceeding those amounts specified for the individual materials, such as brick and paint, among others; (3) certain materials, such as admixtures, aluminum alloys, hydraulic cement, steel guardrail, lime, and others, that may be accepted on the basis of Manufacturer's or Producer's certifications, mill analyses, annual published lists, or other certifying documents; (4) certain materials outlined in Section 207 when used on certain projects outlined in Chapter 7 (5) certain materials that require no sampling, testing or certification for approval, such as, monomolecular film and copper water pipe, among others. The materials which may be accepted on this basis are covered in more detail in the individual material sampling and testing instructions in Sec. 200, and in a condensed list in Sec. 207.

SECTION 112 MATERIALS

Sec. 112.01 General

Materials received on a project, whether for contract work, force account work, or maintenance, shall be covered by an approved list, new product evaluation list, certification tracking number, certification, test report, inspection report, quality assurance, engineer approval, or visual inspection. If such reports are not received (within 2 calendar weeks) after the material has arrived on the project or if the information given on the report does not agree with the description and quantity of material received, the Materials Division must be notified without further delay through the District Materials Engineer (DME). The Inspector or Foreman who has been assigned to receive the materials shall carefully examine all materials as they are received. Any visible evidence that the material is not suitable for use and in accordance with specification requirements must be reported to the DME immediately, and the use of the material delayed pending instructions.

In addition, material delivered from the Producer/Miscellaneous Supplier to the project site shall be accompanied by delivery tickets, invoices, or weigh tickets. The ticket must have complete printed project information. It is at the discretion of the Area Construction Engineer (ACE) for the approval of hand written or any other format listing the project information. Material received without this documentation shall not be used until such evidence is produced. One copy of this ticket will be obtained by the Inspector for materials delivered to the project and, in the case of tonnage materials, signed by the Inspector. The Inspector shall hold this ticket until completion of the project, and until they have checked to determine that the specific material and quantity has actually been delivered to the project, and until the project received the above noted materials test or inspection report to cover the shipment. The delivery ticket will be kept in a safe place until completion of the project, at which time they will be forwarded to the project files.

In the case of materials shipped to the project site by truck and paid for on a tonnage basis, the documentation will be accomplished by retaining the weigh tickets and Forms TL-102A, as outlined in Sec. 800.

All producers of materials which are produced under a Quality Control (QC) plan shall have written documentation of their QC plan. The documentation shall include, among other things, the QC functions, frequencies, and state the personnel designated the responsibility for the various QC functions, and the designated personnel with authority to sign the certifications stating that the materials are produced in accordance with the QC plans. Test reports and inspection documents supporting the conformance to specifications must be signed by the QC personnel performing the testing, or inspection.

It is imperative that extremely close communication be maintained between the plant and the project, in order that entries on project and plant records will be in agreement.

a) **Quality Control Program - for acceptance of miscellaneous materials by Miscellaneous Suppliers**

In order to supply miscellaneous materials to a VDOT project, the Miscellaneous Supplier shall be on the Materials Division Approved List No. 44. Out-of-state Miscellaneous Suppliers shall be a distance of less than 50 road miles from the nearest Virginia state line crossing. Due to the demand of Producers, Precasters' are limited to 125 road miles. The Miscellaneous Supplier may qualify for placement on this list after the following is verified.

Miscellaneous Suppliers shall have an approved Quality Control (QC) plan, which defines how they intend to maintain all shipping records, inventory records, test report numbers, and other documents needed to assure that materials shipped have the proper acceptance documentation. The QC Plan shall define the

responsible parties, and describe when, where, and how the records are maintained. See Appendix B of this Chapter for an example of a QC Plan.

The QC Plan shall be submitted to and reviewed for content by the Materials Division, QA Section. The VDOT Industrial Inspector is responsible for the acceptance or rejection of the QC Plan in accordance with the QC Plan Checklist found in Appendix A of this chapter. The VDOT Industrial Inspector is responsible for the Miscellaneous Supplier's adherence to the approved QC Plan. The VDOT QA Section Manager has the authority to remove non-compliant Miscellaneous Suppliers from the list. If during the inspection deficiencies are noted, this will be documented in a non-compliance report (NCR) with a follow-up visit scheduled.

Approved Miscellaneous Suppliers will be added to Approved List No. 44 with a "p" to denote the probationary status of each facility. The probationary status will remain in place for a minimum of six months. After this period, the Miscellaneous Supplier may be removed from probationary status if there are no points reported in a NCR. Annually, the Department will review each Miscellaneous Supplier's QC plan and update Approved List No. 44.

Each item on the shipping ticket shall include the method of acceptance for each material. Tickets for material that has been VDOT tested shall show the test report number, lot number, size, exact description of the material tested, and all additional information listed in the QC plan. Each item on the shipping ticket that has been approved by a materials test report, certification or mill analysis, shall show the Certification Number, for the blanket approved items or brands. Items that are on the Approved List shall show the Approved List Number and be identified by brand/product name and number as shown on the Approved List. Visually inspected materials shall be listed as Visual. All materials for which the Miscellaneous Supplier has documentation shall be stamped, tagged or stenciled QC. Shipping tickets for approved materials will carry the statement "We certify that the above material has been approved for use on VDOT projects as per QC Program" or similar and signed by authorized personnel listed in the QC Plan for each specific facility. Any materials accepted outside of these guidelines will be at the discretion of the DME.

Miscellaneous Suppliers shall not ship material that is not tested as a part of their QC Plan. If unapproved items are shipped on the same invoice as materials covered by the QC plan, the material shall be separated from the approved material. This material shall be listed below the QC statement on the shipping ticket and "NOT APPROVED" by the item/items. The ticket shall carry a statement that the material has not been approved for use on VDOT projects, This material will not be acceptable for payment and the items shall not be stamped QC. If approval of these items is received, written notification will ~~is to~~ be furnished to the Contractor, Inspector, and monitoring District Materials Engineer.

Incidental items, such as PPE, tools, temporary forms, etc., may be shipped on the same ticket provided they are separated from the accepted items and "Not VDOT Tested" is listed by each item. Incidental items are defined as items necessary to complete the project but not materials featured as part of the project.

Temporary material, excluding tested materials, used in maintenance of traffic will not be required from a Miscellaneous Supplier provided it meets Specification 512.

For material on the shipping ticket, the documentation to be shown in the Materials Notebook will be the shipping ticket number, along with the stated acceptance such as, Certification Number, Test Number, Approved List Number, or Visual Inspection for each item on the shipping ticket.

Materials supplied shall be subject to the same testing, certification, or other acceptance procedures as is currently required. The VDOT Industrial Inspector will continue to sample the materials, as needed, and will periodically provide inspections to verify warehouse stock is properly tested, stamped, stored, etc. Samples pulled at a Miscellaneous Supplier's facility shall become the property of the Department once a sample is taken. The VDOT Industrial Inspector will audit shipments to assure the invoices have the correct information, and that the materials shipped have been properly documented as materials acceptable for use

on VDOT projects. One additional copy of the shipping document shall be emailed to the monitoring Industrial Inspector on a weekly basis for verification of materials being shipped. If the Miscellaneous Supplier does not provide proper documentation in a timely manner they will be removed from the Approved List.

The Miscellaneous Supplier's facility, processes, records, and items will be monitored as deemed necessary by the Department. If during the VDOT Industrial Inspector's on-site visit, non-compliance with specifications or the Miscellaneous Supplier's QC plan is observed, the VDOT Industrial Inspector will issue an NCR to the Miscellaneous Supplier's QC designee or the facility manager. The NCR will list the violation of the QC plan or specification, and rate the violation on a scale of one (1) to three (3). See Appendix C for points and typical violations. This list of violations is not meant to be all-inclusive or a complete list, but is an example list of the types of violations that could result in an NCR being issued. The VDOT Industrial Inspector will determine the most appropriate category that fits the violation or non-conformance.

The VDOT Industrial Inspector will work with the Miscellaneous Supplier's QC personnel in making a resolute effort to resolve NCR action items and develop a procedure or process to ensure the violation does not take place again. The accumulation of six non-compliance points or more within a twelve month period will result in the Miscellaneous Supplier being placed on probation for six months. If the Miscellaneous Supplier accumulates ten non-compliance points within a twelve month period the Miscellaneous Supplier will be removed from the approved list immediately. Failure to address an NCR will result in the Miscellaneous Supplier's removal from Approved List No. 44.

Sec. 112.02 Material Arriving Bearing Inspection Seals

Production control is not infallible, and does not replace the necessity of field inspection. In all cases, the material is to receive visual inspection immediately upon arrival in the field. When material arrives on the job bearing inspection seals or other identifying marks, indicating that the material has been plant inspected, such materials may be used on arrival at destination without delay, unless visibly defective or notification prohibiting its use has been received. See Sec. 109.03 for details of material certifications.

Inspection seals or other identifying marks that are attached to or received with a shipment of material, when it is received and accepted by the Inspector, must be removed from the railroad cars or trucks and the numbers recorded in the materials notebook with all other details concerning the material. See also Sec. 110.01 above and Sec. 800 for details concerning weigh tickets.

Sec. 112.03 Material Arriving Without Evidence of Inspection

Material that arrives at destination bearing no evidence that it has been inspected must not be used until approved. The District Materials Engineer is to be notified.

Sec. 112.04 Handling of Materials on Job

Tested and approved materials that are to be used immediately, or are stored improperly, upon arrival on the job should be given another careful visual examination before they are used. If any deterioration in condition, quality, or grading is evident, the District Materials Engineer is to be notified immediately. Coarse aggregates tend to segregate in transit and special care should be taken in handling. Conical stockpiles of aggregates are objectionable and should be avoided if at all possible. Should conical stockpiles prove to be detrimental to uniformity in mixes of hydraulic cement concrete or asphalt concrete, immediate steps should be taken to correct this situation.

Hydraulic cement must be stored to insure that it is kept dry. Any moistening of cement prior to its use, creating a lumpy and partially hydrated material, is to be cause for rejection of the cement.

Reinforcing steel stored on the job should never be placed in direct contact with the ground, but should be supported on timbers, etc., to keep it clean and dry. The location for storage should be one that will prevent the possibility of the steel becoming physically damaged in any way.

Any liquid or powder chemical materials stored on the job, such as concrete admixtures, curing compounds, paints, etc., should remain sealed in their original containers free from moisture or contamination, and at the manufacturer's recommended storage temperature, until used on the job.

Every effort should be made to properly handle and store materials on the job.

Sec. 112.05 Proper Sampling in the Field

See Sec. 201 for instructions on proper sampling in the field.

Sec. 112.06 Information to be Submitted with Samples

Detailed and complete information concerning each sample is absolutely necessary. The proper notification cards must be used, as outlined in Sec. 800, when submitting samples for test. The individual submitting the sample must sign the card in the space provided. Failure to fill out the sample notification cards completely will result in delay in making and reporting the tests, as the testing will not be done until necessary information has been obtained.

Sec. 112.07 Procedure to be Followed when Material is Rejected

Materials that do not conform to the specifications or requirements of the Virginia Department of Transportation are not to be used, unless authorized by the Engineer. The Materials Division will notify the Field Engineer of the failure of materials to pass the required tests. Whenever a Materials Technician inspects materials prior to shipment, and a seal is attached to the shipping vehicle, the load of material may be accepted on the job, after close visual examination for defects. Each Materials Technician is assigned a number of plants, and it is not possible to be at one plant at all times. It is, therefore, necessary that a visual inspection be made of each load of material as it arrives on the job. If Material is thought to be unsatisfactory after visual inspection at the job site, or there is indication that the material received does not conform to specifications, then the following procedure should be used:

(a) The Inspector should refuse the use of the material. It should be understood that the rejection of a material on a visual basis may not always be completely valid. For example, the Inspector may feel that a specification aggregate is either out of the grading or is contaminated; however, these factors cannot be determined without the benefit of a retest.

In other instances, however, visual inspection may completely suffice for the rejection of the material, if the material is unquestionably altered. An example of this would be a broken section of concrete pipe.

(b) The Inspector should then advise the Area Construction Engineer of the situation and the District Materials Engineer should be immediately notified.

(c) The District Materials Engineer will then investigate and provide a retest if necessary, such a retest being directed toward proper evaluation of the true character of the material (for example, the first case outlined in Paragraph (a) above). The Inspector will then properly record the situation by recording the developments in his diary.

It is most important that the Inspector at the job site promptly notify a supervisor and request confirmation of this judgment, in cases where material has been rejected on the basis of visual inspection. In almost every instance, in which an important component of the contracted work is rejected, the Contractor can be expected to question the basis for the rejection. Questioning of the rejection decision should not be taken as an attack upon the competence of the individual who rendered initial judgment. The Contractor's interest in the decision is motivated by the fact that it takes time to reorder material and replace workmanship.

Before reordering replacement material, the contractor wants to be reasonably certain that our decision to "reject" is justified.

No one is expected to be an expert in the evaluation of the many materials which are used, even on an average highway project; therefore, it behooves the individual, whether they are serving in an Inspector or Engineer capacity at the project level, to call upon the appropriate "specialist" in the Department to render a decision of confirmation or who is otherwise able to offer a satisfactory explanation for the condition(s) which prompted the initial decision to reject the material.

Individuals cannot afford the luxury of acting solely on their own judgment in the rejection of materials and/or workmanship involving large sums of money and labor. The authority we have been given to "reject" is tempered with responsibility to fully evaluate that which is in question. Further, since time is important to both parties of the contract, we have the added responsibility to be prompt in seeking confirmation of our judgment.

The above procedure naturally does not apply to materials or workmanship which are obviously improper, defective, or not as specified. Examples include: incorrect size bars or location of bends in reinforcing steel, broken pipe, or unapproved substitutions involving the type of material specified. Neither does it apply to the rejection of "perishable" items; such as, hydraulic cement concrete which fails under test to conform to the specified requirements and which also fails under retest.

When material, purchased by the Contractor for contract work, has been found to be unsatisfactory for use, the Materials Division will inform the Area Construction Engineer of such, in order that he may notify the Contractor. Whenever it does become necessary to reject material or workmanship, field personnel should not become involved in suggesting or directing what course of action the Contractor should or must follow. Sec. 105.13 of the Road and Bridge Specifications says in part, "Unacceptable work shall be remedied or removed immediately and replaced in an acceptable manner at the Contractor's expense." Hence, there are at least two courses of action open to the Contractor (and perhaps more). He should be given an opportunity to decide which course of action he wishes to propose to the Department for our consideration, without having been unduly influenced at the outset. It may be that the only practical solution is to remove the work, but the Department's representative must not be guilty of jumping to this conclusion. At the outset, simply advise the Contractor that the work is unacceptable and that, after he has had an opportunity to study possible alternatives, the Department is to be advised of what he proposes to do to correct the deficiency.

When material, furnished on State orders, has been found to be unsatisfactory for use, the Materials Division is to notify the Administrative Services Division. Immediately upon receipt of such notice from the Materials Division, the Administrative Services Division will notify the Manufacturer that the material received has been rejected, due to failure to conform to its specification requirements, and will be held for the Manufacturer's disposal. A copy of this notice from the Administrative Services Division to the Manufacturer must be sent to the District Administrator, and from this point on the matter shall be handled by the Administrative Services Division and the Materials Division. In case of emergency, a request for permission to use the material is to be submitted to the Administrative Services Officer or Maintenance Engineer. A copy of such request should be sent to the Administrative Services Division and to the Materials Division.

When any material is found by tests or inspection to be unsuitable for use after sampling, the discrepancy must be corrected by the Contractor or Producer before the material is resampled and retested. This applies to any material which by nature lends itself to being manipulated or corrected after having once been made, placed, or used, regardless of any lapse of time afterwards. Materials, such as aggregate bases and subbases, select materials, and aggregates to be used in hydraulic cement concrete, would be included in this policy, whereas items, such as asphalt concrete or hardened hydraulic cement concrete, would not be included. This material, after correction, is to be resampled in the same location as that found to be in nonconformance with specifications on the original sample.

SECTION 113 REQUESTS FOR TESTS AND SERVICES

The purpose of this section is to set forth procedures for processing of requests for materials tests and services for other State agencies, local governmental units, other States, and Federal agencies. Although Sections 33.1-195, 5.1-49, and 5.1-50 of the Code of Virginia permit the Department to perform work for others, it is not intended that we solicit or otherwise promote such work.

Sec. 113.01 Performing Materials Tests and Services for Other State Agencies, Local Governmental Units, Other States, and Federal Agencies

Requests are to be made in writing and are to include a statement that the applicant is unable to contract the work within a reasonable time frame, or cannot find anyone else to perform the work. Requests are to be forwarded to the State Materials Engineer who will respond through the District Administrator.

In the event it is decided that the work can be undertaken without detriment to our schedule or increase in personnel, the District and/or Central Laboratory will prepare an estimated cost for the work and furnish same to the applicant. The appropriate payroll additive is to be included in the estimate for engineering services.

The applicant is to approve the estimate in writing and is to agree to pay the actual costs incurred. For work estimated to cost more than $5,000.00, a resolution from the governing body will be required.

Our written approval of work for others will include a statement that the work can be performed without detriment to our own materials program or necessitate an increase in personnel.

At the time test results and/or reports are transmitted to the applicant, a statement should be included asserting the understanding that the results and conclusions furnished are for the private use of the applicant. This will, hopefully, minimize our being drawn into controversy or having our work used to publicize some product.

The billing for work performed for other State agencies is handled by inter-agency transfer. All others are billed on an accounts receivable arrangement.

The Department does not have a legal or other basis for performing tests or services for Contractors, private businesses, or individuals, unless such need relates to its construction/maintenance program.

Sec. 113.02 Reciprocal Agreements where the Service is Performed Without Charge

According to our records, neighboring States have performed a considerable amount of plant inspection work for this Department without charge. Inasmuch as the services rendered to this Department currently equal and even exceed the services rendered to other States, it has been concluded that such routine inspection/testing services should be handled on an informal reciprocal agreement basis for those who wish to participate.

It should be understood that we are addressing work that can be performed as a part of our on-going inspection program with existing staff. The bulk of the work is prestress and precast inspection work performed by resident Plant Inspectors.

Sec. 113.03 Reciprocal Agreements for Services in which the Cost is Recovered/Paid

In the event there is a significant imbalance in the amount of work being performed by either State such that payment for the service(s) is deemed appropriate, the usual billing procedures are to be followed. Actual costs are to be documented using time sheets.

It should be understood that the Department reserves the unchallengeable right to refuse work requested, depending upon our availability at the time of the request. The State Materials Engineer's Office should be kept informed of requests and commitments involving work for other States.

SECTION 114 MATERIALS CERTIFICATION SCHOOLS PROGRAM

The Materials Certification Schools (MCS) Program is offered by a partnership between the Virginia Department of Transportation (VDOT), the Virginia Education Center for Asphalt Technologies (VECAT), Germanna Community College (GCC) and the Community College Workforce Alliance (CCWA) for individuals who wish to receive training and certification in the areas of Concrete, Asphalt Concrete, Soils, Aggregate, Pavement Marking, Slurry Surfacing and Surface Treatment. The goal is to provide on-going training in materials technology for industry and VDOT employees for the purpose of providing a competent workforce. These workers are involved in the production, utilization, acceptance, testing and inspection of materials used in the Commonwealth's transportation infrastructure.

To attain this goal the Certification Programs objectives are:

Provide technical training to VDOT and industry personnel.

Enhance the teamwork and efficiency of VDOT, Industry, Municipalities, Testing/Inspection Agencies, and Consultants by training all individuals together.

Support VDOT's Construction and Maintenance Programs through provision of appropriate training.

Support VDOT's Quality Control and Quality Assurance Programs.

The roles and responsibilities of the program partners are as follows:

VDOT is the certifying body and retains ownership of all certification examinations as well as the establishment of all certification requirements. The Department also reserves review authority over all materials and instructors used in the presentation of the training program.

CCWA, GCC and VECAT will provide training locations and instructors for the instructor led training (ILT) as well as maintaining online training resources. They will also provide all training materials required as well as appropriate examination facilities.

Sec. 114.01 Specification Requirements

VDOT specifications require that the Contractor have present during the production, placement and testing of some materials a Certified Materials Technician. The following activities and the corresponding technicians summarize these specifications. **Refer to the Virginia Department of Transportation Road and Bridge Specifications or the project contract documents for the actual specifications.**

The production of Central Mix Aggregate requires the presence of a Certified Aggregate Plant Technician. The Contractor shall have a Department-certified Asphalt Mix Design Technician for designing and adjusting mixes as necessary. The Asphalt Mix Design Technician or Asphalt Plant Level II Technician may perform testing of asphalt mixes.

The Contractor is responsible for having a Certified Concrete Plant Technician available during batching operations.

The Contractor shall have an Asphalt Field Level II Technician present during paving operations.The placement of Slurry Surfacing requires the presence of a Certified Slurry Surfacing Technician.

The placement of Concrete requires the presence of an American Concrete Institute's Concrete Field Testing Technician Grade I or WACEL Concrete I certified technician.

The Contractor shall have a Cold Asphalt Recycling Field Technician present during recycling operations.

The Contractor shall have a Cold Asphalt Recycling Plant Technician present during recycling operations.

The Contractor shall have a Full Depth Reclamation Technician present during reclamation operations.

The placement of pavement markings requires the presence of a Certified Pavement Marking Technician.

The placement of Surface Treatment requires the presence of a Certified Surface Treatment Technician.

Sec. 114.02 Certification Application

All candidates for Certification in the VDOT Materials Certification *Schools* Program must read and sign an Application for Certification found in Appendix E.

Sec. 114.03 Certification Titles

School	Certification Title
Asphalt Field Level I	Asphalt Field Level I Technician
Asphalt Field Level II	Asphalt Field Level II Technician
Slurry Surfacing	Slurry Surfacing Technician
Surface Treatment	Surface Treatment Technician
Asphalt Plant Level I	Asphalt Plant Level I Technician
Asphalt Plant Level II	Asphalt Plant Level II Technician
Asphalt Plant Mix Design	Asphalt Mix Design Technician
Cold Asphalt Recycling Field	Cold Asphalt Recycling Field Technician
Cold Asphalt Recycling Plant	Cold Asphalt Recycling Plant Technician
Concrete Plant	Concrete Plant Technician
Central Mix Aggregate Plant	Central Mix Aggregate Technician
Full Depth Reclamation	Full Depth Reclamation Technician

Soils and Aggregate Field	Soils Compaction Technician
Pavement Marking	Pavement Marking Technician

Sec. 114.04 Steps Required for Certification

To obtain certification in a selected program the applicant must pass a certification examination and successfully complete any applicable proficiency examination (see following table *Proficiency Examination Requirements*).

The individual must successfully complete the proficiency examination in the same calendar year they pass the written examination. After successfully completing the written exam and the proficiency examination, a Certification will be awarded. The Certification is valid for five years. Expiration is five years from December 31st of the calendar year that the individual attended class. Students may print their own certification record from VDOT University. The web address is: https://VirtualCampus.VDOT.Virginia.gov.

Individuals are allowed a maximum of two attempts per calendar year to pass any specific written certification examination or any required proficiency examination. Two failures of either the written or proficiency exam will require the individual to start the entire certification process again the following year.

The Certification belongs to the individual, not their employer. Upon change of employment or location, the Materials Certification Schools Staff should be notified to update the student's record.

Proficiency Examination Requirements

Materials Certification Title	School	Proficiency Requirements	Contact Information
Asphalt Field Level I Technician	Asphalt Field Level I	No proficiency examination required	No proficiency examination required
Asphalt Field Level II Technician	Asphalt Field Level II	No proficiency examination required	No proficiency examination required
Asphalt Plant Level I Technician	Asphalt Plant Level I	Road & Bridge Specification 211.05, AASHTO R47	Germanna Community College 540-937-6757
Asphalt Plant Level II Technician	Asphalt Plant Level II	AASHTO T30, AASHTO T166, AASHTO T209, AASHTO T269, AASHTO T312, VTM-102	Germanna Community College 540-937-6757
Asphalt Plant Mix Design Technician	Asphalt Plant Mix Design	ASTM D4791, ASTM D5821, AASHTO T176, AASHTO T304, AASHTO T84, AASHTO T85, AASHTO T19, AASHTO T30, AASHTO T312, VTM-102, AASHTO T209, AASHTO T166, AASHTO T283	Germanna Community College 540-937-6757
Central Mix Aggregate Technician	Central Mix Aggregate Plant	AASHTO T2, AASHTO T11, AASHTO T27, AASHTO T248, AASHTO T255, AASHTO T89, AASHTO T90	CCWA 804-523-2290
Concrete Plant Technician	Concrete Plant	Written proficiency examination required.	Part of written examination
Pavement Marking Technician	Pavement Marking	Written proficiency examination required.	Part of written examination
Slurry Surfacing Technician	Slurry Surfacing	No proficiency examination required	No proficiency examination required
Soils Compaction Technician	Soils and Aggregate Compaction	AASHTO T217, VTM-10, VTM-12, ASTM D4959	MCS Program Office
Surface Treatment Technician	Surface Treatment	No proficiency examination required	No proficiency examination required

Sec. 114.05 Maintenance of Certifications

Certification holders must complete all certification requirements every five years to maintain their certification.

Sec. 114.06 Extensions

Extension of certifications will be considered on a case by case basis and approved by the State Materials Engineer.

Sec. 114.07 Suspension of Certification

Certification is deemed to be a privilege that has been earned by an individual and may be suspended at any time if, in the opinion of the VDOT Technician Certification Review Board, an individual is thought to have knowingly committed acts that are detrimental to the integrity of the Certification Program or to the industry in general. All cases of potential certification suspension will be reviewed by the VDOT Technician Certification Review Board and they will recommend to the State Materials Engineer any action deemed appropriate. The State Materials Engineer will then make the final decision on what action will be taken, if any. The VDOT Technician Certification Review Board will be comprised of the following:

- The District Materials Engineer or designee (from District in which the incident occurs)
- The District Construction Engineer or designee (from District in which the incident occurs)
- The Materials Certification Schools Program Manager or designee

Any suspected inappropriate actions by an individual should be reported to the District Materials Engineer (DME) in the District in which the incident occurs. The DME will determine if the action is a case of "Negligence" or "Abuse" and if the action rises to a level of seriousness that the VDOT Technician Certification Review Board will be convened. VDOT employees who are found to have committed infractions which may constitute misconduct under the Commonwealth's Standards of Conduct may be subject to further disciplinary action.

- "Negligence" or "Negligent Action" is unintentional failure to follow required standards and procedures.
- "Abuse" or "Abusive Action" is intentional failure to follow required standards and procedures.

A Negligent Action or Negligence may include but is not limited to:

- Failure to perform specified duties
- Failure to follow appropriate testing or sampling procedures

An Abusive Action may include but is not limited to:

- Display of any dishonest behavior such as cheating on examinations during the certification process
- Falsification of field or quality control tests results and/or records
- Submitting false information that can be used for field or quality control test results
- Repeated negligent actions

The DME has the authority to place an individual on probation in the event a minor negligent action does not arise to a level of seriousness required to convene the VDOT Technician Certification Review Board. Probation will typically involve additional supervision during testing or other means of ensuring the original issue has been corrected. Actions that may warrant probation include improperly filled out header information on report forms, improper sample handling, uncalibrated equipment, etc.

The DME also has the authority to temporarily suspend an individual's certification pending review by the VDOT Technician Certification Review Board. The DME will notify the Materials Certification Schools Program Manager, who will convene the VDOT Technician Certification Review Board.

The Board will meet to review the incident as soon as practical. The individual will appear before the Board at that time. The VDOT Technician Certification Review Board will then make the final decision.

The Board may suspend the individual's certification for a definitive amount of time and the individual will be required to successfully complete the Certification course and examination prior to reinstatement. Suspensions will typically be for 6 months to one year. Actions that may warrant suspension include negligence such as

improper certification level, improper test equipment or lack of equipment, failure to supply required paperwork, improper sample frequency, repeated probations etc.

Notice of any disciplinary suspension of a certification issued pursuant to this Section 114.07 will be sent by certified mail to the individual and the Corporate Head of the company employing the individual; and by electronic mail to all District Materials Engineers.

An individual has the right to appeal any disciplinary action which results in suspension of a certification by responding in writing, to the State Materials Engineer within 10 calendar days after receiving notification of the disciplinary action. Failure to appeal within the time specified will result in the waiver of all future appeal rights regarding the disciplinary action taken. The individual will not be allowed to perform duties associated with the certification during the appeals process.

The State Materials Engineer will hear the appeal and make a decision within 7 days of hearing the appeal. The decision of the State Materials Engineer shall be final and sent in writing to the individual.

Suspension of one Certification may be considered grounds for suspension of all Certifications held by the Technician. Further, any suspension of a Technician's Certification in any other jurisdiction may result in the VDOT Technician Certification Review Board taking the same or other action, against a Technician's Certification in Virginia.

Sec. 114.08 Program Instructors

Instructors for the program are provided by CCWA and GCC and may come from VDOT or private industry. Although instruction must comply with VDOT procedures and specifications, we welcome and encourage the participation of industry in all parts of the program.

Sec. 114.09 Program Evaluation

Examinations

Certification examinations are all "open book", proficiency examinations are "closed book." A valid photo ID must be presented prior to taking any examination.

The examination results of each class are compiled and analyzed on an annual basis by VDOT. Frequently missed questions are evaluated and addressed by some combination of clarifying the question, highlighting the information in the manuals, asking the instructor to highlight the information or revising the question.

Advisory Teams

At the end of each season, the teaching teams meet with the Materials Certification School's staff and representatives of the appropriate training provider to discuss and evaluate the past year's schools. Included in this meeting are various subject matter experts, both VDOT and Industry. Student evaluations and test results are compiled prior to this time and are presented at the meeting. From this information and the advice of the instructors, action plans are formed to adjust the teaching, curriculum, manuals and tests to best meet the needs of the students and VDOT.

Sec. 114.10 Study Guides

Study guides are provided by the training provider and are reviewed and revised annually. Technical Working Groups representing VDOT, industry and the training provider meet at the end of each school season to ensure

the study guides contain accurate and up to date information. Changes or corrections are incorporated into the study guides before the next school season. VDOT reserves the right to review all training materials including study guides, presentations and online training courses.

Sec. 114.11 Scheduling

Scheduling is done by the training providers. Classes are generally held between January and the middle of April.

Sec. 114.12 Class Cancellations

Every effort will be made to hold classes; however, weather conditions or low registrations may be justification for cancellation of a class. The training provider will make every attempt to contact the students in the event of a cancellation. If the community college where the training is being held closes due to inclement weather, the class will be cancelled also. If this happens contact the training provider to make other arrangements.

Sec. 114.13 Fees and Refunds for Schools

Fees and refund policies are established by the training provider and are subject to change. The fee includes course attendance, manual and other materials, the examination and one retest. Separate fees may apply for proficiency examinations.

Sec. 114.14 Refunds

This section has been removed.

Sec. 114.15 Alternate Certifications

VDOT will recognize NICET Construction Materials Testing Level II Certification in Soils. Individuals possessing a current NICET Construction Materials Testing Level II Certification in Soils will not need to obtain a VDOT Soils and Aggregate Compaction Certification. Similarly, VDOT will recognize NICET Construction Materials Testing Level II Certification in Concrete. Individuals possessing a current NICET Construction Materials Testing Level II Certification in Concrete will not need to obtain an ACI Concrete Field Testing Technician Grade I or WACEL Concrete I certification. Individuals not possessing a current NICET certification described above, have the option of obtaining the prescribed NICET certification or the applicable VDOT certification.

SECTION 115 MATERIALS TESTING REQUIREMENTS

Sec. 115.01 Personnel Qualifications

Materials testing will be performed by trained and qualified technicians/inspectors. A trained and qualified technician/inspector is defined as a person that holds a current valid certification through the respective Materials Certification Program. Technicians/inspectors and other Department personnel conducting acceptance tests not covered by a Materials Certification Program will perform testing in accordance with general guidance from the appropriate responsible District or Central Office Program Manager.

SECTION 116 NEW PRODUCTS EVALUATION COMMITTEE PROCESS

Note: Approved Products List - Request for the review of a product that is similar to or meets specifications, special provisions or other Department standards shall be submitted to the appropriate Division listed on the Approved List, if not, continue below.

Sec. 116.01 Purpose/Mission

The intent of the New Products Committee (NPC) is to accomplish the following:

a) Provide to Vendors a single, centralized Department authority to ensure a uniform and controlled process by which new products will be evaluated consistently and fairly, with intent for the use of such products by the Department and its contractors.
b) Provide a timely review of each new product application, with intent to reduce or eliminate project delays.
c) Maintain a centralized data bank of new product reviews to include the applications, supporting data for each product and the results of the NPC review.

Sec. 116.02 Definition of New Product

A **New Product** is defined as an innovative product that will add value, improve quality, and/or increase performance and is not currently deemed to be covered by specifications, special provisions or other Departmental standards. A new product is not solely assessed for its potential cost savings to the Department but evaluated on its ability to meet or exceed current engineering/quality standards. Generally the NPC will limit the scope of its review to materials, which will become a temporary or permanent part of its maintained highway system. Items not considered by the NPC include products that are typically forwarded to the responsible/respective Division of the Department, such as equipment, fuel, and lubricants. Other related items may include computer software programs and general office supplies.

Sec. 116.03 Structure

The composition of the NPC includes at least one representative appointed by the Division Administrator from each division of the following Divisions: Materials (chairperson), Maintenance, Construction, Structure and Bridge, Research Council, Environmental, Location and Design, and Traffic Engineering.

The chairperson has the responsibility to hold regularly scheduled meetings twice a year typically in April and October. Additional meetings will be scheduled as necessary and may include online video conferencing.

Sec. 116.04 Process and Procedures

The evaluation process consists of the four basic steps:

1) Initial Review - All Vendors wishing to have their products considered must submit a New Products Application form to the chairperson found at:

http://www.virginiadot.org/business/materials-download-docs.asp

The chairperson will enlist assistance of the appropriate NPC members to initially review the product(s) documentation to determine if the product(s) meets the definition of a new product and whether the product(s) lends potential value to the Department. If more information is required, the vendor will be contacted within five (5) business days. The initial review will either result in a recommendation for the product(s) to be further reviewed by the NPC or immediate rejection (with explanation) to the applicant; this notification is usually sent to the

Vendor within eight (8) weeks after the chairperson has received a complete New Product Application. If the NPC has determined the product(s) has value to VDOT's needs, it will be add to the New Product Evaluation List (NPEL).

2) Preliminary Examination – The Vendor at his/her option may appear before the committee to present any additional information or visual aids. The Vendor may also schedule and provide a field demonstration through a member of the committee/subcommittee.

The committee will consider any laboratory data made available by the Vendor or secured from other sources during step 1 and 2. A product will not be evaluated until a valid Safety Data Sheet is provided.

3) New Performance Evaluation – When the Department uses a new product, The Vendor and/or project staff shall notify the corresponding Department person(s) whose name is listed on the NPEL at least five (5) days before installation. Project staff shall follow up with the NPC chairperson on a regular basis, while documenting the product(s)'s performance in the New Product Evaluation Form (Appendix G). Contact information will be removed from products that have completed the evaluation process and "no further evaluation" will be noted on the NPEL. If a product is not utilized within two (2) years of being listed on the NPEL, the material will be removed from the list.

Projects will be notified by assigning the designated VDOT# and contact information on the Source of Materials.

The NPC chairperson will be responsible for establishing and maintaining a new products database while publishing an updated NPEL on a monthly basis.

4) Writing Specifications, Procedures, etc. – When there are 3 or more of the same type of products, and the products are used frequently, a specification may be written, while removing the product from the NPEL, and given an acceptance method, and placing the product(s) on the Approved Products List.

Appendix A: Misc. Suppliers QC Plan Outline Checklist

Company& Location: _____

1. Cover sheet to contain the Facility location, main phone number, web site, date, facility point of contact, etc. **Yes No**

2. Statement of commitment to program, purpose and mission. **Yes No**

3. Personnel chart or organizational arrangement including assignment of responsibilities. **Yes No**

4. VDOT items supplied under this plan. **Yes No**

5. Copy of records retained for a minimum of five years and a copy made for VDOT QA Technician as needed. **Yes No**

6. Statement of allowing VDOT access to necessary sampling and inspection. **Yes No**

7. Actions taken when new product is received. **Yes No**

8. Summation of product storage. **Yes No**

9. Material documentation process – to include all of the following:
   - Certifications/testing of product supplied by manufacturer **Yes No**
   - Material handling/movement of approved material **Yes No**
   - Labeling passing material **Yes No**
   - How failed material is handled **Yes No**
   - Information pertaining to size of lot, lot number, batch number, batch quantity and roll numbers, approved List numbers , "Buy America" requirements and "BABA requirements" statement if applicable as per 106.01(a), etc. **Yes No**
   - Brand name and manufacture*r of material.* **Yes No**
   - Sample ticket should include:

     Project Number **Yes No**
     Contractor Information **Yes No**
     Description of material size, style, and quantity **Yes No**
     Lot, Batch and/or Roll number **Yes No**
     Appropriate acceptance for each item listed **Yes No**
   - Sample of ticket sent to VDOT projects including the QC statement and signature, on the ticket. **Yes No**
   - All authorized personnel must sign QC statement. **Yes No**

Signature: _____
Date: _____
Department: _____

Appendix B: Sample QC Plan for Misc. Suppliers List No. 44

Your Company Name

Specific Facility Location

Quality Control Plan

Current Date

Address
Phone Numbers
Point of Contact's
Name Contact's
Phone Number
Contact's Email
Business Web Address

I. Statement of Commitment to VDOT's Miscellaneous Suppliers Program:

This should be a statement explaining your company's commitment to the standards and goals set by VDOT in the Manual of Instruction and current Road & Bridge Spec. Book.

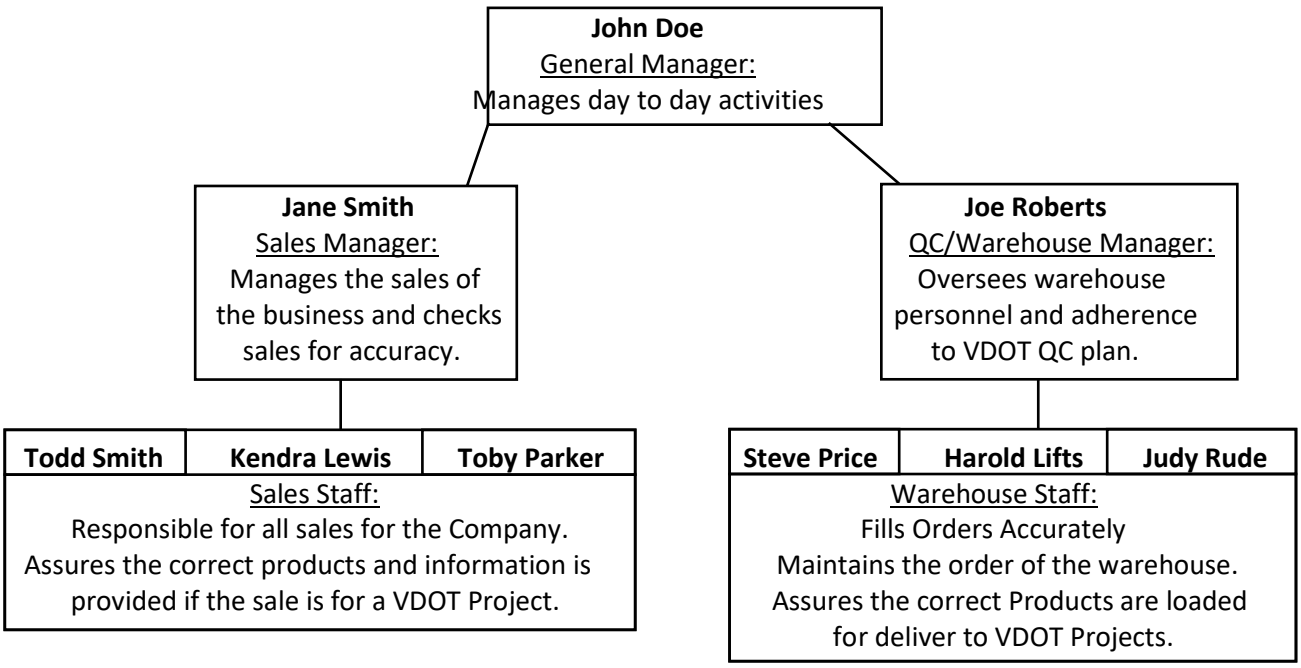
Example:

(Your Company) is committed to the mission and goals of the Virginia Department of Transportation's Materials Division as outlined in Section 112 of VDOT's Manual of Instructions. (Your Company) will store, test and deliver all materials in accordance with the guidelines found in Chapters 1, 2, and 7 of VDOT's Manual of Instruction. (Your Company) is dedicated to provide quality merchandise to best serve your customers', their clients' and the public's need.

II. Personnel Chart or Organizational Arrangement including assignment of responsibilities:

This can be a flow chart or a list of hierarchy and their duties, as well as who reports to them.

Examples of each are below:



OR

Position	Responsibility	Reports to
General Manager: **John Doe**	**Manages the Day to Day activities**	**President or Chairperson**
Sales Manager: **Jane Smith**	**Manages the Sales side of the Business and checks sales for accuracy.**	**General Manager**
Warehouse Manager/ VDOT QC Administrator: **Joe Roberts**	**Manages the Warehouse Staff, Assures adherence to VDOT QC Plan and assures all documents are sent with deliveries.**	**General Manager**
Sales Staff: **Todd Smith** **Kendra Lewis** **Toby Parker**	**All Sales for the Company. Assures the correct products are and information is provided if the sale is a VDOT Project.**	**Sales Manager**
Warehouse Staff: **Steve Price** **Harold Lifts** **Judy Rude**	**Fills Orders accurately. Maintains the warehouse. Assures the correct products are delivered to VDOT Projects**	**Warehouse Manager**

III. Items Supplied under this Plan:

List any and all items your company supplies to a VDOT project. Items to include are, but not limited to: safety supplies, fasteners, power tools, chemicals, concrete, forming supplies, rebar, mesh, bar supports, aluminum sheeting, etc.…

IV. Records:

All records, including but not limited to; inbound and outbound inventory, batch and expiration information, product information, Mill Certifications, Certification of Compliances, Testing Lab information, MSDS information, and "Buy America" requirements and BABA requirements information, as per 106.01(a) will be kept on file at the facility for a period of five (5) years. Copies of all shipping tickets, Bills of Lading, and all paperwork accompanying the shipment will be emailed to the VDOT Quality Assurance Technician responsible for monitoring the facility.

V. Statement Allowing VDOT access to necessary sampling and inspection:

This is a statement allowing VDOT to enter your facility for sampling, inspection, and problem resolution purposes.

Example:
(Your Company) agrees to allow VDOT and its representative's access to our facility to conduct sampling and inspections of our storage facilities and access to all documents involving VDOT Projects, during normal business hours.

VI. Action taken when new product is received:

This is a statement explaining how new products received to your facility will immediately be visually inspected for defects, improper labeling, and all documentation such as testing reports, inspection reports, and certifications are present and correct. Materials failing any of these inspections will not be allowed to be stored or sold as VDOT approved materials.

VII. Summation of Product Storage:

This is a summation of how all products will be stored inside a secured storage area. All materials will be kept off the ground with dunnage or the use of shelves. All materials will be labeled with product information, lot size and number, batch number, batch quantity, roll number, and test approval numbers if applicable. VDOT products and NON VDOT approved items will not be stored together. Any *VDOT* tested materials will be kept segregated from all other materials in the warehouse until approval is granted. All VDOT materials will be handled in a manner so as not to cause damage to that material or any other materials near it. Any material that fails testing will be returned to the Manufacturer, disposed of accordingly, or stored with materials that are NONVDOT approved Items. These items must not be sold or delivered to a VDOT project.

VIII. Sample Ticket:

Sample ticket should include:

a. VDOT Project Number
b. Contractor information
c. Description of material, Manufacturer's name, product name, style, quantity, lot, batch, and/or roll number.
d. Appropriate VDOT Acceptance Method and/or Lab Number if supplied by VDOT Inspector. For items on the Approved List, use the exact Manufacturer's name and description as it appears on VDOT's Approved List.
e. Miscellaneous Supplier QC Statement.
f. Signature of Approved QC designee for the Company.

IX. Authorized Signatures:

List all authorized personnel who are signing the Miscellaneous Supplier QC Statement. Please include the printed name, signature, and title of each person.

(Your Company) authorizes the following person(s) to be Quality Control Technicians for this facility.

Print Name	Signature	Title
Print Name	Signature	Title

X. Attach a Sample of the Miscellaneous Supplier's Shipping Ticket with the QC Statement and Signature

Shipping tickets for approved materials will carry the statement "We certify that the above material has been approved for use on VDOT projects as per QC Program" or similar.

Example of a Miscellaneous Supplier QC Statement

We certify that these materials are in accordance with VDOT Miscellaneous Supplier's Quality Control Program

x *John Doe, Jr.*
Quality Control Technician

Appendix C: Miscellaneous Suppliers Violations (NCR)

1 Point Violations:

- BOL must include manufacturer's name, product name, description, and quantity
- No Method of Acceptance on the shipping document: Approved List number, VDOT Test report and lot number(s), Required Manufacturers Certifications, "Buy America" requirements and BABA requirements" information as per 106.01(a)), letter as required, and Visual Item Inspection items. Illegible hand written information.
- Failure to mark Non- VDOT Approved items as Not for VDOT on shipping documents.
- Contractor Information and Project Number missing from shipping documents.
- No signed Quality Assurance Statement.

2 Point Violations:

- Failure to retain all VDOT Tickets, Manufacturers Certifications, Test Reports, and Manufacturers Invoices for a period of 5 years.
- Failure to send copies of Tickets to the VDOT QA Technician at a minimum of monthly. More often if over 20 tickets generated per month or at a VDOT specified higher rate if more than 20 tickets per month.
- Sending tickets to Projects with wrong VDOT test report or lot numbers than what was delivered. Missing certifications or other required paperwork. Different information between project ticket and VDOT submitted copy. Failure to respond to issues with items sent to project. VDOT approved and unapproved or incidental items not separated on the shipping document.
- Failure to use Material specified on the C-25 form submitted by the Contractor or asking him to resubmit a corrected C-25 for an alternative product. Failure to research and submit items that meet VDOT requirements.
- Not segregating VDOT from non-VDOT material or segregating material in testing.

3 Point Violations:

- Failure to store material per Manufacturers recommendations or VDOT requirements from weather, temperature, or contamination. Failure to provide all material documentation to the VDOT project.
- Sending material not in accordance with "Buy America" requirements or "BABA requirements" as per 106.01(a) to a Project.

Cause for immediate removal

- Failure to allow VDOT QA Inspector access to your facility.
- Verbal and/or physical confrontation with the VDOT QA Inspector.
- Sending non-tested items, non- approved items, or items to a project that require VDOT testing that wasn't performed.

* This is not meant to be an all-inclusive or complete list but an example list of types of violations that could result in an NCR being written by VDOT Industrial Inspector. The Industrial Inspector will determine the most appropriate category that fits the violation or nonconformance.

See corresponding report on following page:

Misc. Supplier NCR Report

Date: _____ Time In: _____ Time Out _____

Facility Name: _____ Location: _____

Q.A. Technician: _____ Total Points Given: _____

Reason for Non-Conformance Report: _____

Points Breakdown for this report: _____

Resolution to correct Non-Conformance Issue: _____

QA Manager's Name: _____ Received a Copy: Yes No

VDOT Industrial Inspector _____

Appendix D: Intentionally Left Blank

Appendix E: Application for VDOT Materials Technician Certification

This is to affirm that _____ (Technician's Name), hereinafter "Technician," desires to be certified by the VDOT as a (an)_____(Name of Certification desired). By making this Application, Technician acknowledges and agrees that Certification carries inherent rights and responsibilities. The rights include being exclusively sanctioned**,** along with others so certified by VDOT**,** to perform sampling, testing, and reporting of test results for quality acceptance, quality control and assurance programs. The responsibilities include performing and reporting tests with the accuracy and precision expected of the Technician in accordance with the required test procedures.

By signing this Application, Technician agrees to strive to maintain compliance with all rules, regulations, specifications, industry standards, procedures, and policies, applicable to any work performed under the Certification. A violation of the above as determined by the VDOT Technician Certification Review Board may result in a suspension or revocation of the rights and responsibilities conferred on the Technician. Revocation or suspension of one Certification may be considered a revocation or suspension of all Certifications held by the Technician. Further, any suspension or revocation of Technician's Certification in any other jurisdiction may result in the VDOT Technician Certification Review Board taking the same or other action, against Technician's Certification in Virginia.

By signing below, Technician also affirms that he/she is aware that both State and Federal laws may govern construction projects in Virginia, including Title 18, United States Code, Section 1020, that states, in pertinent part, that anyone making falsifications on Federal-aid projects,

"Shall be fined not more than $10,000 or imprisoned not more than five years, or both."

I, _____(Print Name), affirm that I have read and fully understand the foregoing "APPLICATION FOR VDOT TECHNICIAN CERTIFICATION," and I agree to be bound by these terms.

_____ _____

Technician's Signature **Date**

Appendix F: Intentionally Left Blank

Appendix G: New Product Evaluation List Performance Evaluation Form

VDOT New Product No.: _____
Trade Name of Product: _____
VDOT Evaluator Name: _____
Date of Report: _____
Photographs Taken: (Yes/No) and where stored: ___ Continue to Evaluate, Call Good on this Project, or Reject:

PROJECT INFORMATION:
District: _____ UPC & VDOT Project No.: _____
Location of Installation: _____
Date Product Installed: _____
Installed by: _____
Man'f rep name & contact info if present during installation:

What is the primary function or purpose of this product on the project?

Is Environmental monitoring/review/coordination or Industrial Hygienist required with VDOT Env Div?
Attach any sampling needs/results.

For installation:
Size, length, number, details of installations (include special handling, equipment, deviation from man'f directions, unique site conditions:

For periodic evaluation after installation:
How is product functioning and holding up