

**FLORIDA DEPARTMENT OF TRANSPORTATION**

**RULE CHAPTER TITLE:**

**RULE CHAPTER NO.:**

**Construction Aggregates**

**14-103**

RULE TITLE:

RULE NO.:

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14-103.001 Scope. This rule chapter provides the requirements and procedures for obtaining and maintaining Department approval of developed and operational construction aggregate sources (mines and redistribution terminals) and their individual construction aggregate products which are intended for use on Department projects. Department approval is based upon the existence of suitable raw materials; processing facilities capable of producing specified aggregate meeting Department specification requirements; and an effective Quality Control Program assuring the continuing quality and uniformity of that production. Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92, Amended .

14-103.002 Purpose.

(1) This rule chapter sets out a standardized method for producers of construction aggregates to apply for, receive, and maintain Department approval of construction aggregate sources for use on Department projects. Source and product approval, and maintenance of an on-going effective Quality Control Program, as monitored by the Department's Quality Assurance procedures, comprise the Department's primary methods of determining acceptability of aggregate on Department projects.

(2) A Quality Control Program requires producers of construction materials to be responsible for their products; to establish, maintain, and implement their own individualized process control system; and to certify to the Department compliance of their product with applicable standards and contract specifications.

(3) Approval of a source by the Department and implementation of a Quality Assurance Program by the Department does not relieve the producer of the responsibility for compliance

with the Quality Control Program or shipping aggregate which meet specifications. Contractors are also responsible for transporting and handling aggregate in a manner which will preclude significant variation in the properties of the aggregate. The Department reserves the right to test all aggregate at the point of use or at the project site to determine acceptability for use according to contract specifications.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92, Amended .

14-103.003 Definitions. As used in this rule chapter, the term: (1) “Addendum” means an approved revision to a written Quality Control Program. Addenda are in the form of an updated “record of changes” page, and the appropriate replacement page(s) modifying existing sections of the Quality Control Program submitted under cover letter for review and approval by the Department.

(2) “Affiliate” means the same as defined in Section 337.165, Florida Statutes.

(3) “Aggregate” means a granular construction material such as sand, limerock, limestone, gravel, shell, slag, and crushed stone; ; manufactured materials such as expanded shales, slates, and clays; and recycled materials such as crushed concrete, used as a component of mortars, concrete, or bituminous mixtures, or used alone as a base or sub-base courses, as a stabilizing material for base or subgrade, or as a loose assemblage for drainage, foundation, shore protection, bank protection, water barrier, filter material, bedding purposes, or for other construction materials and uses not yet developed, but which may have potential usage by the Department.

(4) “Aggregate Independent Assurance Program (IAP)” means an unbiased and

independent evaluation of all the sampling and testing procedures used in the Quality Control Program and the Department's Quality Assurance Program. The Aggregate IAP, dated 2/9/2005, is incorporated herein by reference. The Department will administer the IAP using personnel that do not otherwise have direct responsibility for the specific functions under review.

(5) "Certify" means that the producer affixes the statement "CERTIFIED FOR FDOT" or "CERT. FOR FDOT" to a shipping ticket to attest that this specific aggregate shipment was produced and shipped under a Department approved Quality Control Program and for which Quality Control tests indicate that the specific aggregate meets Department specifications and Department quality and uniformity requirements set out in Section 2.2 of the *Construction Aggregates Manual*.

(6) "*Construction Aggregates Manual*" means the Department's manual entitled *Construction Aggregates Manual*, December 1, 2004, prepared by the Department's Aggregate Control Unit, which prescribes standardized methods of outlining the limits and frequencies for Quality Control sampling and testing of construction aggregates and material quality criteria for Department approval levels, which is incorporated in this rule chapter by reference .

(7) "Contract Crime" means the same as defined in Section 337.165, Florida Statutes.

(8) "Convicted" or "Conviction" means the same as defined in Section 337.165, Florida Statutes.

(9) "Department" means the Department of Transportation.

(10) "Direct Shipment" means a specified quantity of material shipped and certified in its entirety from an approved Type I, Type II, or Type IV source to a single point of use, or a location or conveyance controlled by and identified by the end user in its Department approved

## Quality Control Program

(11) “Instructions for Coding of Aggregate Test Data for Computerization” means the Department’s manual providing directions for completing standardized forms for the recording of aggregate test data and listing of the Department’s aggregate codes, entitled *Instructions for Coding of Aggregate Test Data for Computerization*, dated 07/1994, which is incorporated in this rule chapter by reference.

(12) “Lot” means an isolated quantity of a specified aggregate produced from a single source from a single process.

(13) “Lot-size” means a quantity of a specified material produced in a specified time period.

(a) The number of test results to be analyzed for compliance shall be the number of samples established by the *Construction Aggregates Manual*, but not to include results more than one calendar year old.

(b) The time period for which frequencies will be assigned shall be as specified in the *Construction Aggregates Manual*.

(c) For purposes of material control, a lot shall consist of all materials of a specified grade or type that are produced over the time period specified in (b), above, from a single process at a mine, or received at a redistribution terminal, and are represented by test results obtained in accordance with assigned sampling frequencies. Lots that are to be evaluated and disposed of separately must be kept physically separated and distinct from other lots and material.

(14) “Origin” means a single location serving as a recognized supply of raw material for subsequent processing by a Department-approved Type IV source.

(15) “Origin Number” means a unique number assigned by the Department to a location serving as a recognized supply of raw material for identification purposes. The origin number is the property of the Department, and is non-transferable.

(16) “Point-of-Production” means any physical operation, not including redistribution terminals, involved with removing and processing material from the earth or involved with processing material for use as aggregate, and shall be described as a mine.

(17) “Point-of-Use” refers to that point where the aggregate is incorporated into the project (i.e., project site, asphalt or concrete plant, etc.).

(18) “Producer” means any business or individual seeking to supply aggregate to the Department or contractors of the Department. The producer must have legal rights to mine the aggregate and must be responsible for the mining (where applicable), processing, quality control, stockpiling, load-out, and certification of the aggregate. Evidence of the mining rights of the producer shall be provided.

(19) “Product” means a type, grade, or Department code of aggregate from a single process.

(20) “Quality Assurance” or “QA” means the Department’s management method of evaluating the effectiveness of the producer’s Quality Control Program including the use of verification samples and test results, the IAP, and source inspections to monitor the quality, uniformity, and acceptability of aggregate.

(21) “Quality Control” or “QC” means the producer’s management method of controlling and making adjustments to mining materials processing techniques, and materials handling, stockpiling, and load-out, including the use of QC samples and tests and other available information to establish and maintain the specified quality and uniformity of a product.

(22) “Quality Control Program” or “QCP” means the over-all system developed and used by a producer that ensures that a product will meet specified quality standards, including documentation supporting its effectiveness.

(23) “Recycled Material Processing Site” means any physical operation involved with processing previously used or manufactured material for reuse as aggregate, not to include recycled asphalt pavement (RAP). Such a site is treated as a source by the Department.

(24) “Redistribution Terminal” means a physical operation at a fixed location, not including the point-of-production, where aggregates are received from one or more approved sources, recombined from discrete haul units into common storage units, then redistributed for resale to more than one point of use .

(25) “Sampling and Testing Methods” means the Department’s standardized methods of sampling and testing aggregates which are listed in Appendix 20 of the *Construction Aggregates Manual*.

(26) “Source” means a physical location including mines, recycled material processing sites, and redistribution terminals, which has aggregate.

(27) “Source Number” means a unique number assigned by the Department to a source for identification purposes. The source number is the property of the Department, and is non-transferable.

(28) “Split Sample” means a representative portion of aggregate collected for testing purposes that is subdivided into two or four approximately equal sub-portions.

(29) “Verification Sample” means a sample collected by the Department or its designated agent for testing purposes to validate the quality of an aggregate product.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10, (13), 337.105(1),

337.11FS. History - New 10-20-92, Amended 11-3-97 .

14-103.004 Source Approval Requirements.

(1) A letter requesting source approval for specific aggregates shall be sent to the Director, Office of Materials, Gainesville, Florida, and shall include:

(a) The producer's QCP. The evaluation and acquisition of a deposit shall be the responsibility of the producer. During initial preparation, the producer must formulate and implement a QCP meeting the requirements of Rule 14-103.006, F.A.C. The QCP must be individualized for each source based on the deposit characteristics, mining and processing and rehandling techniques, and initial test data or past performance.

(b) Product Identification. The producer must identify the specific product(s) for which source approval is sought, establish that the identified product(s) meet Department standards and requirements, and establish process control of each product through sampling and testing. The producer must be able to demonstrate each product's quality and degree of control to the Department's satisfaction. The specific type and minimum number of tests required to establish quality and degree of control of each product is found in Section 1.1 of the *Construction Aggregates Manual*.

(c) Test Data. Test Data submitted by the producer to the Department must indicate that each product from a single process meets the Department's quality and uniformity requirements for Department specifications as provided in Section 2.1 of the *Construction Aggregates Manual*. The minimum testing and sampling requirements of Section 1.1 of the *Construction Aggregates Manual* must be met upon application for approval by the producer. Subsequent requests for product approval must meet the requirements of Rule 14-103.0071(3), F.A.C.

(2) Continuing approval is contingent upon the effectiveness of the producer's QCP as

evidenced by the quality and uniformity of the product(s) in accordance with Section 2 of the *Construction Aggregates Manual*.

(3) It shall be the responsibility of the producer to ensure that all conditions of the QCP are met.

(4) All sources must pass initial on-site inspection by the Department, and subsequent monitoring and inspections, to verify compliance with this section and Rule 14-103.006, F.A.C. Verification samples will be obtained by the Department to monitor the effectiveness of the producer's QCP.

(5) The producer shall identify the means that will be used to certify its aggregate shipments. The producer shall certify each individual conveyance of aggregate intended for use on Department projects, unless the Department provides a written waiver of this requirement. Certifications must be made at time of shipment and be provided to the end user or Redistribution Terminal at time of delivery. A copy of each type of certification shall be included in the QCP. The following information must appear on each document (shipping ticket) used to certify or transmit certification of aggregate for Department use, regardless of mode of transport:

(a) Department Source Numbers (Mine Number and/or Terminal Number) and Origin Number, where applicable.

(b) Date.

(c) Quantity, aggregate description and corresponding Department material code (from the Instruction for Computer Coding of Aggregate Test Data).

(d) Producer Ticket Number, which must be sequential for each individual source certifying the material.

(e) The statement “CERTIFIED FOR FDOT” or “CERT. FOR FDOT” is to be placed only on those shipping tickets for specific aggregates that the producer certifies were produced under a Department approved QCP and for which QC tests indicate that the specific aggregate meets quality and uniformity requirements set out in Section 2.2 of the *Construction Aggregates Manual*. Certification shall be made at time of shipment when the weight of material is recorded on the shipping ticket.

(f) Aggregate for which known test results indicate non-compliance with specifications shall not be certified.

(g) The statement “DIRECT SHIPMENT CERT. FOR FDOT FROM MINE” is to be placed only on Redistribution Terminal shipping tickets used to deliver direct shipments of certified material through a Redistribution Terminal without additional testing in accordance with the following provisions:

1. The Redistribution Terminal must list this alternative method of delivery in its QCP and maintain at least one of its products on the full certification system.

2. The Redistribution Terminal must have on record written documentation that the specific end-user has identified this method of delivery in its QCP.

3. A direct shipment stored at a Redistribution Terminal shall be identified as to end-user and be kept isolated from other material.

4. The Redistribution Terminal must abide by storage, handling, and load-out procedures as described in its QCP.

5. The Redistribution Terminal must notify the Department by facsimile or electronic mail of the receipt of direct shipments.

6. The shipping ticket shall reference the producer ticket number (bill of lading) from the

mine.

7. The statement “CERTIFIED FOR FDOT” or “CERT. FOR FDOT” shall not be used for direct shipments.

(6) Source Classifications. These classifications are based on the Department’s ability and resources. In circumstances that preclude the Department’s ability to perform its QAP function at the source, the Department reserves the right to change a source classification with a minimum of one month’s notice given to the producer.

(a) Mines may be located in-state, out-of-state, or out-of-country.

1. Type I Mines are those mines located within Florida, and those out-of-state mines which are a one-way distance of less than 200 miles travel by roadway from a Department District Materials Office. The mine may make direct shipments for use on Department projects or make shipments for subsequent testing and re-certification by approved Redistribution Terminals or re-processing, testing, and certification by Type IV Mines

2. Type II Mines includes out-of-state mines, which are between 200 and 400 travel by roadway from a Department District Materials Office. The mine may make direct shipments for use on Department projects or make shipments for subsequent testing and re-certification by approved Redistribution Terminals or re-processing, testing, and certification by Type IV mines.

3. Type III Mines includes out-of-state (and out-of-country) mines which are more than 400 miles travel by automobile or cannot be accessed by automobile from a Department’s District Material Office. The mine may not make direct shipments for use on Department projects. The mine may make shipments for Department use only for subsequent testing and re-certification by approved Redistribution Terminals or re-processing, testing, and certification by Type IV Mines. These mines must provide their QC test data substantiating their compliance

with Section 2.2 of the *Construction Aggregates Manual*, prior to a Redistribution Terminal shipping any of its material for Department use, even if the Redistribution Terminal has completed its own testing

4. Type IV Mines are those mines located within Florida that receive and process their raw (or partially processed) material from other sources or origins. Only one origin or source of material may be used to produce any single product. The producer (Type IV Mine) must obtain notarized documentation of the origin of each shipment of raw material used in its production. Pursuant to Section 837.06, Florida Statutes, the producer is subject to a charge of perjury if a written false statement is made to a public official. The producer shall supply a report certified under the requirements of Chapter 492, Florida Statutes, that aggregates in the origin are free of deleterious materials in accordance with all applicable Department specifications. Material certification from approved sources will be accepted to establish suitability of the raw or partially processed material; however, the producer shall be responsible for final processing and testing of each individual product. Type IV Mines receiving raw material from other than approved sources shall confirm the acceptability of the physical, chemical, and mechanical properties prior to final processing and certification of the material. The producer may make direct shipments for use on Department projects and make shipments for subsequent testing and re-certification by approved Redistribution Terminals. Certification by the producer will require both the source and origin numbers. A Type IV Mine may seek dual status as a Redistribution Terminal. In such cases, the Department will issue separate source numbers and the producer will be required to keep functions of the two sources separate and distinct.

(b) Redistribution Terminals may be located in state or out of state if they are a one-way distance of less than 100 miles travel by roadway from a Department District Materials or

Branch Office. Redistribution Terminals may receive shipments for testing and re-certification from all approved sources. Prior to re-certifying the material for Department use, the Redistribution Terminal must perform additional QC tests for those aggregate characteristics subject to change due to handling, shipping, stockpiling, or other actions affecting aggregate characteristics. The Redistribution Terminal shall also perform additional QC tests as required by Section 1.2.2 of the *Construction Aggregates Manual* for material received from Type III Mines. Re-certification by the terminal will require both the Source Numbers (terminal and mine) and the origin number, if applicable. Redistribution Terminals may re-certify products to Department projects, end-users, Type IV Mines, or other Redistribution Terminals. Redistribution Terminals may also deliver direct shipments of certified material from Type I, Type II, or Type IV Mines without additional testing subject to the provisions of Rule 14-103.004(5)(f), F.A.C. Specific Authority 334.044(2), (10)(c) FS. Law Implemented 334.044(10), (13), (28), 337.105(1), 337.11FS. History - New 10-20-92, Amended 10-22-02.

14-103.005 Supplemental Source Requirements for Alternate Open-Graded Friction Course (FC) Aggregate. Approval may be sought for coarse aggregate not specifically mentioned by name in the Department's *Standard Specifications for Road and Bridge Construction* use in open-graded Friction Course Asphalt Mix, Type 5 (FC-5). The following approval requirements are in addition to the requirements of Rule 14-103.004, F.A.C., for such alternate materials having characteristics which will result in a friction course providing acceptable long-term frictional characteristics. Once approved, coarse aggregate may be submitted in all Department friction course mixes subject to specification requirements.

(1) A detailed description of the location within the overall mining site of the specific deposit proposed for use in an FC-5, and a description of the unique characteristics of this

deposit which can be used to differentiate it from other material occurring at the site. These characteristics will include such things as color, texture, hardness, physical or chemical properties, and other properties determined in accordance with the *Sampling and Testing Methods* or in accordance with Rule 14-103.006(14)(c), F.A.C. (2) An estimate of the quantity of material available.

(3) A determination of the acid insoluble material retained on the No. 200 mesh sieve (FM 5-510) must be submitted on at least five samples.

(4) Submission of any test data which the producer considers significant to potential friction characteristics, such as wear tests, hardness, crushed faces, angularity, and other relevant characteristics.

(5) The construction of a trial section of FC-5 pavement from the material will be required by the State Materials Office based on history of use and performance. The construction of the FC-5 trial section will be the sole responsibility of the producer. The State Materials Office will design the mix, monitor construction, obtain samples for evaluation, and test the friction characteristics of the surface. The trial section will be a minimum of 500 feet in length to accommodate friction testing, and shall be constructed on a roadway not maintained by the Department. No minimum traffic volume will be required for approval of trial sections.

(6) The information supplied by the producer, the inspection of the mine, and any test results from a trial section will be reviewed by the State Materials Office. If the material indicates a potential for use in an FC-5, the producer will be notified and a test section will then be selected by the producer for Department evaluation of the wear characteristics of the material. The State Materials Office will assist the producer in the selection of a test section which meets the following criteria:

- (a) Minimum 50 miles per hours speed limit.
- (b) Minimum 14,000 Average Daily Traffic.
- (c) No intersection, ramps, driveways or curves.
- (d) Minimum of four lanes.
- (e) Minimum length of 1,000 feet.

A control section meeting the test section criteria and adjoining the test section will be constructed with a Department approved aggregate.

(7) Following the selection of a suitable test section, the producer will then provide sufficient material and make the necessary arrangements with the paving contractor for construction of the FC-5 test section and FC-5 control section. Any additional costs incurred by the paving contractor for the test section and control section will be the responsibility of the producer. The State Materials Office will design the mixes, monitor construction and obtain samples for evaluation. Friction tests will be conducted by the State Materials Office on the test section immediately after construction, then monthly for two months and thereafter at intervals of two months until the accumulated traffic reaches six million (vehicles) coverage or the friction number stabilizes. Friction tests will be conducted at 40 mph in accordance with ASTM E274-97, effective 1997, which is incorporated herein by reference, using both E501 (Rib) and the E524 (Blank) test tires. In the event that the friction number falls below 30 or the test section is otherwise determined to be a threat to public safety within the first two years of construction completion, the evaluation will be terminated and the producer will bear the cost of removing the FC-5 and resurfacing the test section with an approved material. Prior to the construction of the test section, the producer must provide a signed and notarized statement agreeing to this responsibility. Pursuant to Section 837.06, Florida Statutes, the producer is subject to a charge

of perjury if a written false statement is made to a public official.

(8) At the conclusion of the evaluation period the friction number in the test section will be compared to friction numbers obtained in the control section and with friction numbers obtained using previously approved FC-5 aggregates. If the test section is equivalent or better, the State Materials Office will grant approval of the proposed aggregate contingent upon:

(a) The aggregate consistently maintaining the unique characteristics established in Rule Section 14-103.005(4) that identify the specific deposit, and,

(b) The friction course utilizing the aggregate consistently producing friction numbers and other performance characteristics (smoothness and texture) that the Department considers equivalent to the test section on a job by job basis.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), (28), 337.105(1), 337.11FS. History - New 10-20-92, Amended .

14-103.006 Quality Control Program. The QCP developed by the producer for each source shall contain at a minimum the following elements:

(1) Identification of the Physical Location of Source. The identification of the physical location of the source must include a description of the property site, township, range, and section, and reference to the nearest identifiable points such as highways and towns, in order to find the location easily by public roadway.

(2) Location of Designated QC Office. The source shall designate the location of its QC office, which shall have responsibility for the administration of its QCP and the custodianship of QC records. When the QC office is located separate from the source, the identification must include the physical address and reference to the nearest identifiable points such as highways and towns, in order to find the location easily by public roadway. An office, so designated, shall be

available to its own QC personnel and the Department during all QC operations. A copy of the QCP, *Construction Aggregates Manual*, and all pertinent excerpts and references of the *Sampling and Testing Methods*, as well as current test data and control charts, shall be available at the QC office and to its personnel at all times.

(3) Documentation of the Producer's Status. See Rule 14-103.003(18), F.A.C.

(4) A Production Flow Diagram. The production flow diagram must include a step-by-step written description or flow chart indicating the points involved with all aspects of mining, and processing, sampling, and testing the aggregate from natural state to finished product, including all re-handling prior to the load-out of the aggregate.

(5) Labeling Stored Aggregate. The labeling of stockpiles, storage silos, bins, etc., of aggregate must include the clear and precise labeling by sign as to grade and Department code.

(6) Prevention of Contamination, Segregation, and Degradation. The handling and storage of aggregates shall be in such manner as to minimize any segregation or degradation and to prevent contamination by foreign materials. When stockpiles of aggregates cannot be stored sufficiently remote from each other to prevent mixing, suitable baffles shall be provided which will prevent intermingling of the different stockpiles.

(7) Loading and Shipping Controls. A loading and shipping controls program must include a detailed description of the methods by which the product is to be loaded and shipped for use on Department projects, including safeguards against loading improper aggregate and contamination, degradation, or segregation of aggregate. The program shall also include methods of ensuring shipping in clean haul units and accurate identification and certification of products.

(8) Sampling. A sampling plan identifying all specific sampling points and locations,

including intermediate points in process control even though the data will not be entered into the Department's computer program, as well as sampling of the finished product that is as closely representative of shipped material as possible. Sampling methods must be described in detail and in accordance with the *Sampling and Testing Methods*, and must be based on standard statistical practices, including the designation of lots and sub-lots, if applicable.

(9) Initial Quality Control. The Department will assign the initial sampling and testing frequencies for newly approved products at a level specified for less than 95% compliance as shown in appendices 1 through 18 of the *Construction Aggregates Manual*, until a history of test data is developed

(10) Minimum Quality Control. The Department will assign QC sampling frequencies for products on the Conditional QC Certification System in accordance with Rule 14-103.0071(2), F.A.C. For products on the Full QC Certification System, the producer shall monitor its data to assure continued compliance with Section 1.2 and Section 2 of the *Construction Aggregates Manual*. The producer shall notify the Department in writing of any prescribed changes in product status or QC sampling frequencies. Any reduction in QC sampling and testing frequencies must be pre-approved by the Department and be supported by applicable QC and verification data. The Department will assign QC sampling frequencies for products on the Full QC Certification System in accordance with Section 1.2 of the *Construction Aggregates Manual*.

(11) Analysis and Recording of Data.

(a) The producer must have the necessary equipment (i.e., computer) to perform statistical analyses and maintain adequate records of all samples, tests results (including worksheets and sample weights), and other actions to verify the effectiveness of its QCP and to

substantiate aggregate compliance with all applicable specifications. These records shall indicate the nature and number of tests made, statistical analysis, the number and types of deficiencies found, the quantities approved and rejected, and the nature of the corrective actions taken. Producer test data is to be recorded in standardized format. The Department will initially provide the appropriate computer coding forms and electronic submittal formats

(b) The QCP shall include a procedure that will chart, review, and analyze test data so as to effectively evaluate control of the process. The control charts and analyses shall be maintained current with each day's test results and be immediately available for review by QC and Department personnel. Other data must be maintained and available for inspection by Department personnel. As a minimum, the Department will require control charts for gradation on critical sieves, and for other required tests for which the producer's initial approval data indicates less than the 100% compliance level shown in Appendices 1 through 18 of the *Construction Aggregates Manual*. The producer may determine the type of control chart most useful in the process; however, control charts using average and range will be considered the minimum acceptable in the absence of more advanced charting. The producer may chart process control tests in lieu of QC tests, provided that process control samples are taken from the finished product and are at a greater frequency than the QC tests. The QCP must include examples of the control charts used.

(c) All QC test results for materials produced under this rule chapter must be reported to the Department. The producer shall monitor its own data for compliance with Section 1.2 and Section 2 of the *Construction Aggregates Manual*. When there is an indication that the process is not being adequately controlled in compliance with the QCP, the producer shall immediately take the necessary steps to adjust the process

(12) Responsibilities of Personnel. The producer must have a list describing the responsibilities and authority of all personnel involved with the QCP, including supervisors, analysts, technicians, and contact(s). All personnel should be informed of the exact nature of their duties as they apply to the program. Within 15 months of launch of the Aggregate QC Manager training course, an Aggregate QC Manager must be designated as having control over the QCP, and a QC technician designated for each mine. A copy of the QCP shall be on site at the source and available for review by all source personnel during all hours of operation. The Aggregate QC Manager must:

- (a) Have full authority to act as the source's agent to institute any and all action necessary for the successful implementation of the QCP.
- (b) Fluently speak and understand English.
- (c) Be on site at the source or be available upon four hours notice to administer the QCP.
- (d) For Federal Aid Department projects, be qualified as an Aggregate QC Manager through the Department's Aggregate Training and Qualification Program. The *Aggregate Technician Training and Qualification Program*, effective date 2/2005, is hereby incorporated by reference.

(13) Dealing with Control Failures. Control failures are defined by the producer in the QCP to deal with those failures in the QCP administration that may lead to material not complying with Department specifications and standards, or when production under the QCP must be halted to resolve problems leading to product not meeting the specifications. The producer must submit a contingency plan in the event of test results indicating a control failure, to include the following three points:

- (a) Notification of the Department as soon as results indicating a control failure are

known.

(b) Investigation to determine the extent and location of the cause of the control failure.

(c) Corrective action will be taken to eliminate the cause of the failure. The Department shall be notified in writing as to the corrective actions taken to assure quality and the disposition of aggregate represented by the control failure. This written notification will become part of the QCP.

1. Corrective actions need not be in the form an Addendum if no changes are being made to the QCP; however, documentation of corrective actions, to include maintenance logs, process control reports, or other supporting documentation must be provided. The Department will notify the producer of unacceptable submittals that are not in compliance with this rule chapter within five business days of receipt. Addenda that do not comply with the provisions of this rule chapter will be rejected.

2. Procedural steps to detect and prevent future occurrences of the conditions leading up to the control failure should be addressed through Addenda to the QCP. Addenda shall consist of a cover letter explaining the corrective action, an updated “record of changes,” and the appropriate revised pages to the QCP. Addenda are subject to review and approval by the Department. The Department will notify the producer of unacceptable submittals that are not in compliance with this rule chapter within five business days of receipt. Addenda that do not comply with the provisions of this rule chapter will be rejected.

(14) Testing.

(a) Laboratory. On Federal Aid Department projects, pursuant to 23 C.F.R. 637.209, incorporated herein by reference, and the Aggregate Training and Qualification Program, each source must designate either its own laboratory or a commercial laboratory for the performance

of QC testing. Laboratories so designated must be equipped to run all applicable tests with equipment and technicians meeting Department standards. A list of testing equipment and facilities meeting Department requirements must be submitted. Only a Department approved laboratory shall be used for QC testing. Laboratories shall be qualified under one of the following and have current Department approval during testing of Department products:

1. AASHTO Accreditation Program (AAP) accreditation;
2. Inspected by an accreditation agency on a regular basis per methods used in the source's QCP, with all deficiencies corrected, and under the supervision of a Professional Engineer; or
3. Construction Materials Engineering Council (CMEC) accreditation and other independent inspection programs equivalent to 1. or 2. above.

(b) QC Technicians. QC technicians must be designated and identified by the producer and include a list of qualifications; they must have successfully completed the Department's Aggregate Training and Qualification Program for Aggregate Technicians. QC technicians must successfully participate in the Department's Aggregate IAP in order to remain qualified

(c) Methods. Testing or sampling methods and equipment, technicians, and procedures to be used as the basis for producer certification of materials must be described in detail and must be by standard Department methods in accordance with the *Sampling and Testing Methods* (sections pertaining to aggregates), incorporated by reference under Rule 14-103.003(25), F.A.C. Alternative testing methods and procedures may be used by the producer when such procedures provide, at a minimum, the quality control required by the program. Equivalent, alternative methods must be approved by the Secretary of the Department as meeting the required QC. Prior to utilizing such alternatives the producer must describe the changes proposed in a written

proposal and demonstrate that their effectiveness is equal to or better than the standard Department procedures in the *Sampling and Testing Methods*. Such approval of alternate methods shall be based upon a technical demonstration, through comparison of analyses of replicate samples, that the proposed alternate method measures the relevant characteristics with the same degree of accuracy as the approved method. In the case of disputes as to whether certain procedures provide equal control, the procedures specified in the *Sampling and Testing Methods* shall apply.

(d) 4. Turn-Around-Time. All producers must state the period of time it will take for test results to be available at their QC office and to be reported to the Department inspection personnel in accordance with the limits of Section- 1.3 of the *Construction Aggregates Manual*.

(15) Identification of Aggregate. Each producer must furnish a list of aggregate grades, product number, or other identification of aggregate it produces or redistributes under an approved QCP and intends to certify with the corresponding Department Aggregate Description and Code from the *Instructions for Coding of Aggregate Test Data for Computerization*.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92, Amended .

14-103.007 Approval Levels.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92, Repealed .

14-103.0071 Source and Product Certification Systems. Approved sources may certify approved products through either a Conditional QC Certification System or a Full QC Certification System. The Department will inspect the source, monitor the producer's QCP, and determine the system under which the producer may certify the product.

(1) Full QC Certification System. A producer may employ the Full QC Certification System for an approved source and its approved products that meet the conditions of this subsection, including paragraphs (a) through (k) below. The Department will inform the producer in writing at such time as the Department will accept certification of a product pursuant to the Full QC Certification System. Under the Full QC Certification System, the producer may certify and ship a product based on its own QC data meeting the requirements of Section 2.2 of the *Construction Aggregates Manual*. However, the Department reserves the right to reject any defective material based on its own verification testing. The Department will periodically direct the collection of verification samples from selected products that are being certified under the Full QC Certification System. The verification data will be compared with the QC data over an equivalent time period in order to validate the quality of aggregate certified under the Full QC Certification System. The Department will consider supporting documentation in its evaluation of the data. The Department will investigate the possible cause(s) for any unfavorable comparisons through additional verification inspections, sampling and testing, and review of its own verification procedures. The producer shall fully participate in the Department's review of the QC operation, including, but not limited to: increased sampling frequencies, sample retention, split sample comparisons, and additional inspections. If the Department is unable to validate the QC data's compliance with the limits and standards of Section 2.2 of the *Construction Aggregates Manual*, the product will be removed from the Full QC Certification System. The following additional requirements apply to sources using the Full QC Certification System:

(a) The producer shall consistently perform proper and timely sampling and testing of its aggregate products pursuant to the frequencies approved by the Department as modified by the

increased minimum requirements set out in Section 1.2 of the *Construction Aggregates Manual*, and Appendices 1 through 18 thereto.

(b) The producer shall maintain proper and timely records and have accurate test data and control charts available for itself and for Department inspectors in accordance with the limits of Section 1.3 of the *Construction Aggregates Manual*.

(c) The producer shall keep in force the procedures specified in its approved QCP, except upon prior Department approval of a producer-submitted addendum requesting a change. The criteria to approve the addendum must meet the elements as stated in Rule 14-103.006, F.A.C.

(d) The producer shall certify only shipments of approved products, consisting solely of aggregate produced under its Department-approved QCP

(e) The producer shall keep materials not processed under its QCP separate and distinct from aggregates intended for certification.

(f) The producer shall properly certify or transmit certification for all shipments of aggregate intended for usage on Department projects in accordance with Rule 14-103.004(5), F.A.C., unless the Department specifically changes the project's certification requirement.

(g) The producer shall demonstrate effective implementation of its QCP by consistently controlling production of aggregates so as to comply with Section 2.2 of the *Construction Aggregates Manual*.

(h) The producer's plan for dealing with control failures as specified in Rule 14-103.006(13), F.A.C., shall be effective in identifying control failures prior to the product falling below the limits set out in Section 2.2 of the *Construction Aggregates Manual*.

1. Upon timely notification to the Department of a control failure, the producer may

continue to certify material under the Full QC Certification System even though affected data subsequent to the notification falls within the limits set out in Section 2.3 of the *Construction Aggregates Manual*, provided the following additional requirements are met:

a. The producer shall identify the cause of the control failure pursuant to Rule 14-103.006(13), F.A.C., and implement corrective actions to prevent reoccurrence.

b. The producer may request a re-initialization of the product's data, starting with the effective date of the corrective action, based on a determination by the Department that the corrective action can reasonably be expected to prevent reoccurrence of the control failure and assure continued compliance with Section 2.2 of the *Construction Aggregates Manual*.

c. Analysis of data for test results generated subsequent to the corrective action must meet the requirements of Section 2.2 of the *Construction Aggregates Manual*.

2. Three or more control failures related to the same cause that result in the use of subsection 1, above, for the same product during any 365-day period shall be considered prima facie evidence that the QCP has been ineffective in consistently controlling production of aggregates so as to comply with Section 2.2 of the *Construction Aggregates Manual*.

3. When a product's compliance level mandates a change as described in Section 2.2 and Section 2.3 of the *Construction Aggregates Manual*, without the producer giving timely notification as specified in subsection 1, above, the Department will remove the product from the list of approved products. The producer may request re-instatement of the product under the Conditional QC Certification System.

(i) The producer's designated laboratory shall maintain up-to-date and accurate Quality Control records, including: a log of sample collection and identification, laboratory work sheets, test results, records of technician and laboratory qualifications, and information on instrument

calibration and maintenance.

(j) The producer and its designated laboratory shall maintain properly trained and qualified QC personnel, accurate and satisfactory test equipment, and proper procedures.

(k) Independent verification testing, as performed by the Department, must confirm that material shipped complies with all applicable specifications.

(2) Conditional QC Certification System. A producer may employ the Conditional QC Certification System for an approved source and its approved products that meet the conditions of this subsection, including paragraphs (a) through (d) below. A producer that uses the Conditional QC Certification System may only certify aggregate from isolated stockpiles released for shipment by the Department. The producer must still comply with its QCP, and evaluate its data to determine compliance with Section 2.3 of the *Construction Aggregates Manual*. However, only individual stockpiles for which QC data has been found to meet the requirements of Section 2.2 of the *Construction Aggregates Manual* may be proposed for acceptance. The Department will set the QC sampling frequencies at a level specified for less than 95% compliance as shown in Appendices 1 through 18 of the *Construction Aggregates Manual*. Pre-tested stockpiles will be subject to independent verification tests meeting specification requirements prior to release.

(a) When the Department determines that a producer has not met the requirements in Rule 14-103.0071(1), F.A.C., it will advise the producer in writing that the Department will no longer accept certification of products pursuant to the Full QC Certification System. The producer shall thereafter employ the Conditional QC Certification System and shall, within 90 days after receipt of the written Department notification, demonstrate that it is back in full compliance with the conditions of the Full QC Certification System. If the producer has not

made this demonstration within this period, the source or product shall be subject to suspension pursuant to Rule 14-103.009, F.A.C.

(b) When QC results for aggregate properties determined by a test method fall below Department compliance levels in Section 2.2 of the *Construction Aggregates Manual*, or cannot be validated by the Department's own verification testing, sampling frequency for that test method will be increased to a level no greater than the maximum stated in the *Construction Aggregates Manual*. For products reinstated under the Conditional QC Certification System, the Department will set the minimum QC sampling frequencies applicable for those test methods at a level specified for less than 95% compliance as shown in Appendices 1 through 18 of the *Construction Aggregates Manual*. Other test methods, for which the Department is able to establish continued compliance with Section 2.2 of the *Construction Aggregates Manual*, may continue to be sampled, tested, and evaluated at the previously established frequencies. However, test methods for which data had previously fallen below compliance or could not be validated by the Department's own verification testing will be based on test results for the individual stockpile.

(c) The producer shall physically combine individual "lots" up to but not exceeding a total of one week's production, for the purposes of creating a pre-tested stockpile for evaluation and disposition in accordance with Section 2.2 of the *Construction Aggregates Manual*.

(d) The producer may request approval to certify a product without the need for verification testing, based on Department review and a determination that the producer's QCP and its history of operations indicate that the producer can reasonably be expected to satisfy the conditions of Section 2.2 of the *Construction Aggregates Manual*.

(e) The producer may request to ship part or all of a pre-tested stockpile, uncertified and

not for usage on Department projects, prior to completion or evaluation of the stockpile. The producer shall provide timely notification to the Department to allow for the option of independent verification testing. Shipment of part or all of a pre-tested stockpile without such notification shall disqualify the stockpile for certification and void the use of its data for establishing product compliance.

(f) The producer can request to produce aggregate from specific layers, pits, or locations within a mine, and to add other controls or tests addressing specific mining or processing problems for a particular source or product, when practicable and appropriate, to ensure the quality and acceptability of a source or product for use in Department projects.

(3) New Approvals.

(a) A producer that has received approval of a new source pursuant to Rule 14-103.004, F.A.C., shall employ the Conditional QC Certification System for a period necessary to demonstrate that it has fully and properly implemented its proposed QCP and to provide data for statistical analysis to determine whether at least one product satisfies the conditions of Section 2.2 of the *Construction Aggregates Manual*. The Conditional QC Certification System may also be employed for new requests for the addition of aggregate products at Redistribution Terminals from Type I, Type II, and Type IV approved sources provided there are no changes in the terminal's process. The evaluation period for new sources shall not exceed 90 days of operation, except for base operations which shall not exceed 180 days. If, within this period, the producer has not demonstrated that it has fully and properly implemented its proposed QCP for the new source or has not provided data for statistical analysis to show that one of its products satisfies the conditions of Section 2.2 of the *Construction Aggregates Manual*, the new source shall be subject to suspension pursuant to Rule 14-103.009, F.A.C.

(b) Mines and Redistribution Terminals operating under the Full QC Certification System may request approval of new products based on a full submission of data in accordance with Sections 1.1 and 2.2 of the *Construction Aggregates Manual*, provided there is no change to the process. The source must submit an Addendum to its QCP to reflect any changes in its production flow diagram, loading and shipping controls, or sampling plan. Upon approval of the product, the source may certify the material pursuant to the Full QC Certification System.

(c) An approved Redistribution Terminal may request approval to redistribute products from Type I, Type II, or Type IV Mines under the Conditional QC Certification System without a full submission of data as specified in Section 1.1 of the *Construction Aggregates Manual*, provided there are no changes to the Redistribution Terminal's process. The Redistribution Terminal must notify the mine of its intent to seek approval of the Redistribution Terminal and request data for the material shipped. Gradation targets to establish control bands for the product will be set by the Department based on the correlation between the mine's data and the Redistribution Terminal's results for its first pre-tested stockpile. In no case shall the Redistribution Terminal's targets be set lower than the mine's. Products shall continue to be certified on the Conditional QC Certification System until sufficient QC data is available for statistical analysis to determine that the product satisfies the conditions of Section 2.2 of the *Construction Aggregates Manual*.

(4) Reinstated Products.

(a) Materials previously removed from the list of approved products due to a change in compliance level from Section 2.2 to Section 2.3 of the *Construction Aggregates Manual* will only be reinstated once the Department has received satisfactory written notification of the producer's corrective action.

1. The initial written notification need not be in the form an Addendum if no changes are being made to the QCP; however, at a minimum, the notification must describe the extent of the non-compliance and the actions taken to assure the quality and the disposition of aggregate represented by the control failure. This written notification will become part of the QCP. The producer may request a reinstatement of the product under the Conditional QC Certification System pending review by the Department. The Department will notify the producer of unacceptable submittals within three business days of receipt.

2. Procedural steps to detect and prevent future occurrences of the conditions leading up to the non-compliance shall be addressed through an Addendum to the QCP. The Addendum shall consist of a cover letter explaining the corrective action, an updated “record of changes,” and the appropriate revised pages to the QCP. Addenda that do not comply with the provisions of this rule chapter will be rejected. The Department will notify the producer of unacceptable submittals within five business days of receipt. Upon Department approval of the Addendum, the producer may request a return to the Full QC Certification System based on a full submission of data in accordance with Sections 1.1 and 2.1 of the *Construction Aggregates Manual*. Data generated while under the Conditional QC Certification System shall be included in the submittal.

(b) Suspended products may only be reinstated after the Department has received and accepted a satisfactory Addendum addressing steps to detect and prevent future occurrences of the conditions leading up to the suspension. Addenda that do not comply with the provisions of this rule chapter will be rejected. The Department will notify the producer of unacceptable submittals within five business days of receipt. Upon Departmental approval of the Addendum, the producer may request to re-instate the product under the conditional certification system

based on a full submission of data in accordance with Sections 1.1 and 2.1 of the *Construction Aggregates Manual*.

Specific Authority 120.53 (1), 334.044 (2) FS. Law Implemented 120.53 (1), 334.044 (10), (13), 337.105 (1), 337.11 FS. History - New .

14-103.008 Producer Initiated Status Change. A producer may request to be placed on voluntary suspension, or to remove a product or products from its approved products list, for reasons related to problems with the quality or control of its aggregate.

(1) Should the producer elect to change a source's approval status from the Full or Conditional QC Certification System to Suspension, the QC required under the source's previous level will be in effect; however, minimum time requirements restricting sources in approval levels will not apply. The maximum time the source can remain in that approval level and restrictions on shipping of products will remain as stated in Rule 14-103.009, F.A.C.

(2) Upon resolution of the problem, the producer may request a return to its former approval level and control. This request must be made in writing to the State Materials Engineer. Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92, Amended .

14-103.009 Suspension, Revocation, Expiration, or Denial of Source Approval.

(1) Suspension. When source approval is suspended, the producer is restricted from shipping all products for use on Department projects.

(a) An individual product shall be suspended when QC test results fall within the conditions specified in Section 2.4 of the *Construction Aggregates Manual*.

(b) A source shall be suspended when one of the following occurs:

1. Failure to timely supply information required by this rule.

2. Failure of material to meet specification requirements.
  3. Failure to take immediate corrective action relative to deficiencies in the performance of the QCP.
  4. Certification of material not produced under an approved QCP.
  5. Failure to correct any identified deficiency within 30 days after Department notice.
- (c) Time Limits. A source placed under suspension must remain suspended for a

minimum period of 30 days, but not more than 90 days. If the problems are corrected within this time frame, the source will be placed on Conditional Approval. If the problems have not been corrected, the source's approval will be revoked.

(2) Revocation. When source approval is revoked, the producer is prohibited from shipping or certifying aggregates for Department use or Department projects.

(a) A source's approval shall be revoked when one of the following occurs:

1. A suspended source has failed to correct its problems within 90 days of the date of suspension.

2. A source using the Conditional QC Certification System fails to qualify for Full QC Certification System within six months following a period of suspension.

3. Shipping of non-specification aggregate.

4. Failure to meet or comply with any requirements of Rule 14-103.004, F.A.C.

(b) When a source's approval has been revoked, it will not be eligible for re-approval for a minimum period of six months from the date of revocation. Subsequent re-approval is subject to application requirements of Rule 14-103.004, F.A.C.

(3) Expiration or Extension of Approval. A source's approval will automatically expire if it has not furnished material for Department use or Department projects for a period of 365

days, unless an extension of approval is requested in writing, prior to the expiration date, by the producer to the State Materials Engineer.

(a) Extension of approval will be predicated on the continued operation of the source's QCP during the previous 365 days and the source's continuing to meet all the requirements of this rule chapter.

(b) Approval will be extended only once for an additional 365 days. If, at the end of the extension, the source still has not furnished aggregate for Department use or Department projects, source approval will again expire and re-approval is subject to reapplication.

(c) Individual products from any source which have not been supplied for Department use or Department projects for a period of 365 days will be removed from the list of approved products for that source, unless an extension is requested. This includes existing material inventory made under a QCP meeting specifications, and for which identification and specific records and test data are available. Extensions will be granted for up to 365 days.

(4) Denial. A producer's request for source or product approval will be denied when any one of the following occurs:

(a) Incomplete or inadequate QCP.

(b) Failure of material to meet specification requirements.

(c) Results of the Department's inspection and testing do not agree with information and test results furnished by the producer.

(d) Results of the Department's inspection indicate material properties or characteristics which may be a potential problem.

(e) The producer fails, upon receipt of notice from the Department related to any requirement of this rule, to correct the deficiency(ies) within 30 days.

(5) The Department shall give written notice of its intended action to suspend, revoke, or deny approval. Notice of the Department's intended action will be provided in accordance with Rule 28-106.111, F.A.C. The Department's action will become final unless a timely petition for a hearing is filed in accordance with Rules 28-106.201 or 28-106.301, F.A.C. In order to be timely, the petition must be filed with the Department's Clerk of Agency Proceedings within 21 days after receipt of the Department's notice, in accordance with Rule 28-106.111, F.A.C. Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92, Amended 1-17-99 .

14-103.0091 Producer Non-Responsibility.

(1) Producers who wish to supply aggregates to the Department or contractors of the Department, are presumed to be a responsible business or individual unless the Department determines that good cause exists to declare the producer non-responsible, which shall include the following:

(a) The producer made or submitted to the Department false, deceptive, or fraudulent statements, certifications, or materials in any claim for payments or any information required by the Department;

(b) The producer becomes insolvent or is the subject of a bankruptcy petition;

(c) The producer or affiliate(s) has been convicted of a contract crime;

(d) An affiliate of the producer has previously been determined by the Department to be non-responsible, and the specified period of non-responsibility remains in effect;

(e) The producer wrongfully employs or otherwise provides compensation to any employee or officer of the Department, or willfully offers an employee or officer of the Department any pecuniary or other benefit with the intent to influence the employee or officer's

official action or judgment.

(2) Determination of Producer Non-Responsibility. The producer will be determined to be non-responsible and ineligible to supply aggregates to the Department or contractors of the Department for a period of time, based on the seriousness of the deficiency. Examples of factors affecting the seriousness of a deficiency are:

- (a) Impacts on project schedule, cost, or quality of work;
- (b) Delay or interference with the bidding process;
- (c) The potential for repetition;
- (d) Integrity of the public construction process; and
- (e) Effect on the health, safety, and welfare of the public.

(3) Notice of intended agency action under this section will be provided in accordance with Rule 28-106.111, F.A.C. The Department's action will become final unless a timely petition for a hearing is filed in accordance with Rules 28-106.104, 28-106.201, and 28-106.301, F.A.C. In order to be timely, the petition must be filed with the Department's Clerk of Agency Proceedings within 21 days after receipt of the Department's notice in accordance with Rule 28-106.111, F.A.C.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10) (a), (b), (c), (13),

337.105(1), 337.11 FS. History - New .

14-103.010 Emergency Action.

(1) The Department may summarily suspend, limit, or restrict approval if it finds that immediate serious danger to the public health, safety, or welfare or the integrity of a project under construction requires emergency suspension, limitation, or restriction.

(2) Notice of emergency suspension, limitation, or restriction shall be given by written

notice by certified mail, or express delivery, giving detailed reasons for the emergency action taken.

(3) The Department shall promptly initiate formal administrative proceedings after taking emergency action.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92.

14-103.011 Sampling and Testing Methods.

Specific Authority 334.044(2), (10) (c) FS. Law Implemented 334.044(10), (13), 337.105(1), 337.11 FS. History - New 10-20-92, Amended 11-3-97, Repealed .