

CERTIFICATION

PERSONNEL

GENERAL CERTIFICATION REQUIREMENTS

Basic certification requirements and procedures are published in EDSM III. 1.1. 26. Certification is awarded by the department upon satisfactory completion of all requirements, including six months on-the-job training in all phases of the certification area, successful completion of required training courses, and successful completion of certification testing. Arrangements for enrollment in the certification program and testing are made through the district training office. The DOTD Materials Engineer Administrator is the certifying authority for the department. He has full authority to grant or to revoke certification.

Any individual certified under this program who is performing substandard work will be removed from the project and is subject to having certification revoked. Proceedings to revoke certification can be initiated by the district training specialist, district laboratory engineer, project engineer or construction engineer and will be processed in accordance with current department procedures.

DEPARTMENT PERSONNEL A DOTD inspector certified in the area of Embankment and Base Course Inspection will be present at the project site or at the plant during earthwork operations or base course operations. When an asphaltic concrete base course or subgrade layer is being constructed, the onsite inspector will be certified in Asphaltic Concrete Paving Inspection; the plant inspector will be certified in Asphaltic Concrete Plant Inspection. When Portland cement concrete is used in lieu of base course, the inspector will be certified in Portland Cement Concrete Paving Inspection. **Certified inspectors are official representatives of LA DOTD. They have the authority to accept or reject materials and project construction and have the responsibility to discontinue operations whenever the project does not meet department standards or when improper construction practices are employed. The certified inspector is responsible for ensuring that the contractor's materials and production meet the requirements of the department's quality assurance program and conform to all requirements of the contract, plans, specifications and department policies.**

NONDEPARTMENT PERSONNEL

The contractor is required to provide a certified Soil and Base Course Technician when central plant mixed Class I Base Course (Specification Section 301) is being produced. This individual shall be present at the plant at all times when production is in progress. **The certified technician is responsible for the contractor's quality control program and shall organize a sampling program and perform tests as established in the specifications, this manual and other department publications. The contractor's certified technician is also responsible for identifying the causes of deficiencies in base course production or operations and making the appropriate adjustments to bring the product into conformance with DOTD requirements.**

When asphaltic concrete is used as base course or as a subgrade layer, the requirements for the use of certified contractor personnel shall be as outlined in Specification Section 501 or 502 and the *Application of Quality Assurance Specifications for Asphaltic Concrete Mixtures*.

When Portland cement concrete is used in lieu of base course, the requirements for the use of certified contractor personnel shall be as outlined in Specification Section 901, and the *Application of Quality Assurance Specifications for Portland Cement Pavement and Structures*.

For Class II Base Courses, In-Place Stabilized Base Courses, Embankments, Lime Treatment, and Treated Subgrade Layers, **without central plant mixing**, the contractor is responsible for ensuring that the person in charge of quality control is knowledgeable about LA DOTD requirements and capable of overseeing operations and performing tests in accordance with LA DOTD standards to construct a project meeting all specification requirements. When the contractor elects to use a central mix plant for Class II Base Course, all specification requirements of Class I Base Course, including the use of a certified Soil and Base Course Technician, will be required.

EQUIPMENT

CENTRAL MIX PLANT

Central mix plants required for Soil Cement and Cement Stabilized Class I Base Courses under Specification Section 301 must be certified. Certification procedures for these plants will be in accordance with this manual. When a contractor elects to use a central mix plant to produce cement stabilized or treated base course not under Specification Section 301, the plant must meet the specification requirements of Section 301, including certification. When the Class I or Class II base course or treated subgrade layer is asphaltic concrete, the certification requirements shall be in accordance with Specification Section 501 or 502 and the *Application of Quality Assurance Specifications for Asphaltic Concrete Mixtures*. When Portland cement concrete is used in lieu of base course, the certification requirements shall be in accordance with Specification Section 901 and the *Application of Quality Assurance Specifications for Portland Cement Concrete Pavement and Structures*.

The department's laboratory in the district in which the plant is located will certify plant equipment (except sampling and testing equipment) and plant operations, and evaluate and approve materials prior to the delivery of any mixture to a DOTD project. Plant certification requires an on-going, in-depth inspection by district laboratory personnel to ensure that the plant's equipment, stockpiles, storage bins, scales, metering devices, etc., are in conformance with department specifications and standards. It is advisable that engineering staff involved with construction projects receiving material from the plant participate in the certification inspection to ensure that the requirements of individual contracts are met. This inspection is preliminary to the actual granting of certification and should begin when the plant is being erected. It is the responsibility of the contractor to keep the project engineer and the district laboratory engineer informed of the sequence of plant installation and stockpile construction. Failure to keep the

department informed of the status of the plant's installation sequence may cause delay in plant certification and production for DOTD projects.

Certification by the district laboratory signifies that the plant is capable of producing cement stabilized or treated mixtures that meet department standards of quality. Therefore, in order to be certified, a plant must be in production and able to demonstrate its performance. **Material produced during the certification process shall not be incorporated into the project without approval.**

Plant certification is valid for two years, provided the plant is maintained in accordance with the conditions under which certification was issued. Relocation of the plant will invalidate certification. A silver and red certification sticker will be placed in an obvious location on or near the control panel of a certified plant. An example of this sticker is reprinted in the Appendix on page A-3.

The district laboratory will reinspect the plant for conformance to certification requirements at least every 90 calendar days. The department's certified inspector inspects the plant and operations on a daily basis to ensure that the equipment and activities are within requirements. Inspections by the laboratory will be made more frequently if equipment, materials or processes are modified or if deficiencies occur. **It is the responsibility of both contractor and department personnel to notify the certifying district laboratory when modifications are made to equipment, processes or materials.** The district laboratory engineer will routinely distribute communications concerning plant certification to project engineers receiving material from the plant.

The *Base Course Central Mix Plant Certification Report* (DOTD Form No. 03-22-0753) will be used to inspect the central mix plant for conformance to certification requirements and to document this inspection. A copy of this form is reprinted in the Appendix on page A-5. Construction personnel will also use this completed form for daily plant inspections.

Department representatives shall be allowed free access to plant facilities for inspection of plant and operations and certification. These inspections will be conducted at the option of the department and shall not relieve the contractor of any responsibility under the specifications.

REVOCAION OF PLANT CERTIFICATION

When a plant fails to conform to department standards under which certification is issued, certification will be revoked. The certifying district laboratory engineer can revoke plant certification. The project engineer or the department's certified Embankment and Base Course Inspector have the authority to discontinue plant operations when a plant or the mixture exhibits deficiencies. When this occurs, it is the responsibility of the project engineer or certified inspector to notify the district laboratory engineer immediately, so that the plant's certification status can be reviewed. **Once certification has been revoked, the plant will be prohibited from supplying material for any department project until all deficiencies have been corrected and certification is reinstated.**

SCALE AND METER CALIBRATION

In order to meet certification requirements, the contractor shall arrange for all plant scales and meters to be calibrated at least every 90 days by the Weights and Measures Division of the Louisiana Department of Agriculture and Forestry or an approved independent company. **Approved independent companies must be licensed by the Louisiana Department of Agriculture and Forestry. The district laboratory engineer will approve the independent companies for the district.**

Independent companies shall be required to use standards and methods of scale and meter calibration that are approved by the district laboratory engineer. The district laboratory engineer will determine the ranges within which the scales and meters will be calibrated and the increments to be checked.

The calibration of scales and meters shall state that the equipment meets all department requirements for accuracy. The calibration shall be documented and reported to the district laboratory engineer on the *Certification Report for Scales and Meters* (DOTD Form No. 03-22-3065). A copy of this form is reprinted in the Appendix on page A-11. The technician representing the independent company shall sign and stamp the form with the company's identification and/or attach the company's scale certificate. The technician shall place a dated calibration sticker on each device.

Testing equipment used by the contractor or producer shall be independently certified every ninety days. If equipment does not remain in the plant laboratory but is imported for each operation, the department's certified inspector will inspect the equipment, check its calibration, and approve the equipment prior to use. Testing equipment not available at the plant during the certification inspection shall be calibrated by an approved independent service prior to use.

FEED BIN CALIBRATION CURVES

When a plant is controlled by feed bins, the contractor shall develop feed bin calibration curves for each type of material, denoting rate of feed expressed in terms of belt speed and gate opening. These curves shall be submitted to the district laboratory engineer for approval prior to certification inspection. Certification will not be awarded to a plant until these curves are approved. An example of these curves is shown in the Appendix on page A-17.

CONSTRUCTION EQUIPMENT

Equipment used for construction under Specification Parts II, III, or IV must be approved. Certification is not required, except for asphalt distributors when specified. Procedures for the approval of this equipment will be in accordance with this manual. When Class I or Class II base course or treated subgrade layer is asphaltic concrete, placement and compaction equipment must be certified. The certification requirements shall be in accordance with Specification Part V and the *Application of Quality Assurance Specifications for Asphaltic Concrete Mixtures*. When Portland cement concrete is used in lieu of other base course material, placement, compaction, and finishing equipment shall meet the requirements of Specification Section 706.