

MP 401.02.25
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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

CERTIFICATION OF ASPHALT AND TAR SHIPPING TERMINALS

1.0 PURPOSE

1.1 To establish a procedure for certification of asphalt and tar shipping terminals, to set forth conditions for certification and to establish inspection and shipping procedures for certified terminals.

2.0 SCOPE

2.1 This procedure shall apply to suppliers of all asphalt, tar and associated products such as cut-backs and emulsions, who furnish material to state projects and purchase orders, except that the Division may elect to use other control procedures when special conditions dictate the need for more stringent control.

3.0 PROCEDURE

3.1 Prerequisites for certification are as follows:

3.1.1 A Quality Control Program adequate to insure that the material in stock complies with specification requirements.

3.1.2 Test equipment and personnel necessary to test the material for compliance with specification requirements. When the shipping terminal and refinery are in different locations, part of the testing may be done at the refinery but the shipping terminal laboratory must have sufficient equipment to conduct Phase Two tests (see paragraph 4.2.2).

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- 3.1.3 A method of checking shipping vehicles, prior to loading, to prevent contamination of shipments.
- 3.1.4 A satisfactory record of compliance with specifications.
- 3.2 Application for Certification - Asphalt and tar suppliers wishing to be certified to supply material to state projects and purchase orders should submit the items listed below to the Division of Highways.
- 3.2.1 A certified statement that all material shipped to Division projects will conform to specification requirements. The certified statement shall be signed by a representative of the supplier having authority to bind the company.
- 3.2.2 An outline of the suppliers sampling, testing, and Quality Control procedures.
- 3.2.3 A list of the types and grades of material to be supplied.
- 3.3 Upon receipt of a request for certification, an inspection of the terminal will be scheduled by the Division. The inspection will include storage and shipping facilities, inspection of the laboratory, a review of the supplier's Quality Control Testing Program, and shipping vehicle inspection will be made during the facility's operational period on a yearly basis or as deemed necessary by the Division. Periodic inspections of the suppliers laboratory by the AASHTO Materials Reference Laboratory (AMRL) will be required, and documentation that inspection by AMRL has been performed and has been requested shall be a prerequisite to certification.
- 3.4 When the requirements for certification have been met, the Division will notify the supplier. Shipments may then be made using the procedure given for Level One Quality Procedure, in paragraph 5.1.

- 4.0 SAMPLING AND TESTING - THE TESTING PROGRAM IS DIVIDED INTO THREE PHASES, EACH OF WHICH IS EXPLAINED BELOW.
- 4.1 Sampling and Testing, Phase I, consists of Quality Control tests by the supplier, and testing of monitor samples by the Division.
- 4.1.1 The supplier shall obtain samples of all types of materials to be shipped to Division projects, at a minimum sampling frequency of one sample each time the tank is filled, each time new material is added to the tank, and each 30 days. The supplier shall test these samples for compliance with all requirements of the governing specifications.
- 4.1.2 The supplier shall evaluate the test results, and if any LOT of material does not meet specifications, it must either be reworked or reblended until it does meet specifications, or that LOT of material must not be shipped to Division projects.
- 4.1.3 The test results shall be sent to the Division, on standard 80 column data cards, or magnetic tape, using the format to be supplied by the Division.
- 4.1.4 The Division shall obtain and test monitor samples of all types of materials to be shipped to Division projects, from the supplier's storage tanks. These samples will be tested, by the Division, for compliance with all requirements of the governing specifications.
- 4.1.5 The Division will evaluate the Quality Control and monitor sample test results at intervals not to exceed 30 days. If the material does not meet the required criteria, a review will be made of the entire system, to include a review of sampling and testing procedures, and resampling and retesting of both Quality Control and monitor samples. If the material still does not meet the criteria, future shipments of that type of material must be made using the procedure given for Level Two Quality Procedure, in paragraph 5.2, until such time as the criteria is met.

4.1.6 The criteria for evaluation of Phase I test results is given in the attached Flow Charts. The properties for which mean test results are to be compared are:

Asphalt Cements - As listed on the flow chart.

Cut-Back Asphalts - Viscosity and Penetration.

Asphalt Emulsions - Viscosity, Penetration and % Residue.

Tar - Softening Point and either Engler Viscosity or Float test, as applicable.

4.2 Sampling and Testing, Phase Two, applies to emulsified asphalts, and consists of samples taken, by the supplier, at the time of shipment.

4.2.1 The supplier shall take samples at the time of shipment. The sampling frequency shall be one sample per week of each type of emulsion shipped to a state project during that week.

4.2.2 The test to be conducted on these samples, by the supplier, is:

Asphalt Emulsions - Viscosity & Sieve

4.2.3 The purpose of Phase Two Testing is to detect changes in the material during storage. Should test results indicate that the material has changed to an extent that it no longer meets specifications, the supplier shall either reprocess the material so that it complies with specifications, or make no further shipments from that batch or LOT of material.

4.2.4 The test results will be retained at the facilities during its operational period and shall be made available to the Division upon request.

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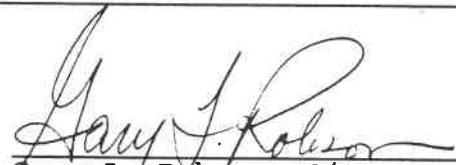
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- 4.3 Sampling and Testing, Phase Three, consists of field samples.
- 4.3.1 The Division will obtain and test field samples, in accordance with the sampling frequencies given in the Division of Highways Construction Manual, and the Record Sampling and Testing Guide. The samples will be tested for compliance with all requirements of the governing specifications.
- 4.3.2 The field samples will be evaluated for compliance with the criteria given by the Flow Charts attached hereto for the type of material under consideration. If the material does not meet this criteria, future shipments of that type of material must be made using the procedure, until such time as the criteria is met.
- 4.3.3 The percentage within tolerance shall be defined as the percentage of the material statistically predicted to be within the specification limits, and shall be based on either normal distribution or "T" distribution, as applicable for the sample size.
- 5.0 PROCEDURES FOR SHIPPING ASPHALT AND TAR
- 5.1 Level One Quality Procedure
- 5.1.1 Shipments may be made at any time.
- 5.1.2 The supplier shall prepare a shipping invoice containing the following information: name and location of company, type and grade of material, quantity shipped and date shipped. The invoice shall be accompanied by a certified statement that the material meets specifications, and shall list the specification that the material is certified to meet (for example: Section 705.4, 1972 WV Specifications) and shall contain a statement that the transport vehicle has been inspected for contamination and has been found to be acceptable for the type of material being shipped. Two copies of the invoice shall accompany the shipment, one for the Contractor and one for state personnel.

- 5.1.3 It is not the intent of this procedure to set forth the specific details for inspection of the shipping vehicle for contamination. Each supplier shall initiate his own program to accomplish the desired end result. The inspection of the shipping vehicle for contamination shall be made by the bituminous material supplier or at the bituminous material supplier's option shall be made by the transport company's representative. If inspection is by the transport company, documentation that the inspection has been performed as well as a log of the previous shipments shall be furnished the bituminous material supplier.
- 5.2 Level Two Quality Procedures
- 5.2.1 Each batch or LOT will be sampled. The quantity represented by a sample will be the quantity in the storage tank at the time the sample is taken and a new sample must be taken when new material is placed in the tank. In the case of materials stored in drums or pails, the quantity represented by the sample shall be the quantity from that batch or LOT on hand at the time the sample is taken.
- 5.2.2 If the sample meets specifications, shipments may be made until the entire batch or LOT has been shipped, or in the case of materials kept in storage tanks, until new material is added to the tank.
- 5.2.3 Shipments may be made in accordance with paragraph 5.1.2 of this procedure, except that the following additional information will be required on the invoice: batch, LOT or tank number, date sampled, and destination. If the material has been tested and approved by the Division, the invoice shall also contain the "Laboratory Number _____ meets specifications". The laboratory number will be furnished by the Division along with the test results. Two copies of the invoice shall accompany the shipment, and one shall be sent to the Materials Control, Soils and Testing Division.

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- 5.2.4 Material that does not meet specifications may not be shipped until it has been reworked or rebled to the satisfaction of the Division and retested.
- 5.2.5 Materials which have been sampled but for which testing has not been completed, may only be shipped at the supplier's risk, and only if the consignee is willing to accept the shipment under these circumstances. The invoice must clearly state that the shipment is made prior to completion of tests, and the words "TEST PENDING" must be stamped or typed on the invoice. Use of the material before completion of tests is governed by MP 700.00.01.
- 5.3 Shipments for Uncertified Terminals
- 5.3.1 Shipments from uncertified terminals shall be made either in accordance with Level Two Quality Procedures, or in accordance with MP 700.00.01, at the option of the Division.


Gary L. Robson, Director
Materials Control, Soils
and Testing Division

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Attachment

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FLOW CHART ASPHALT CEMENT CERTIFICATION PROCEDURE

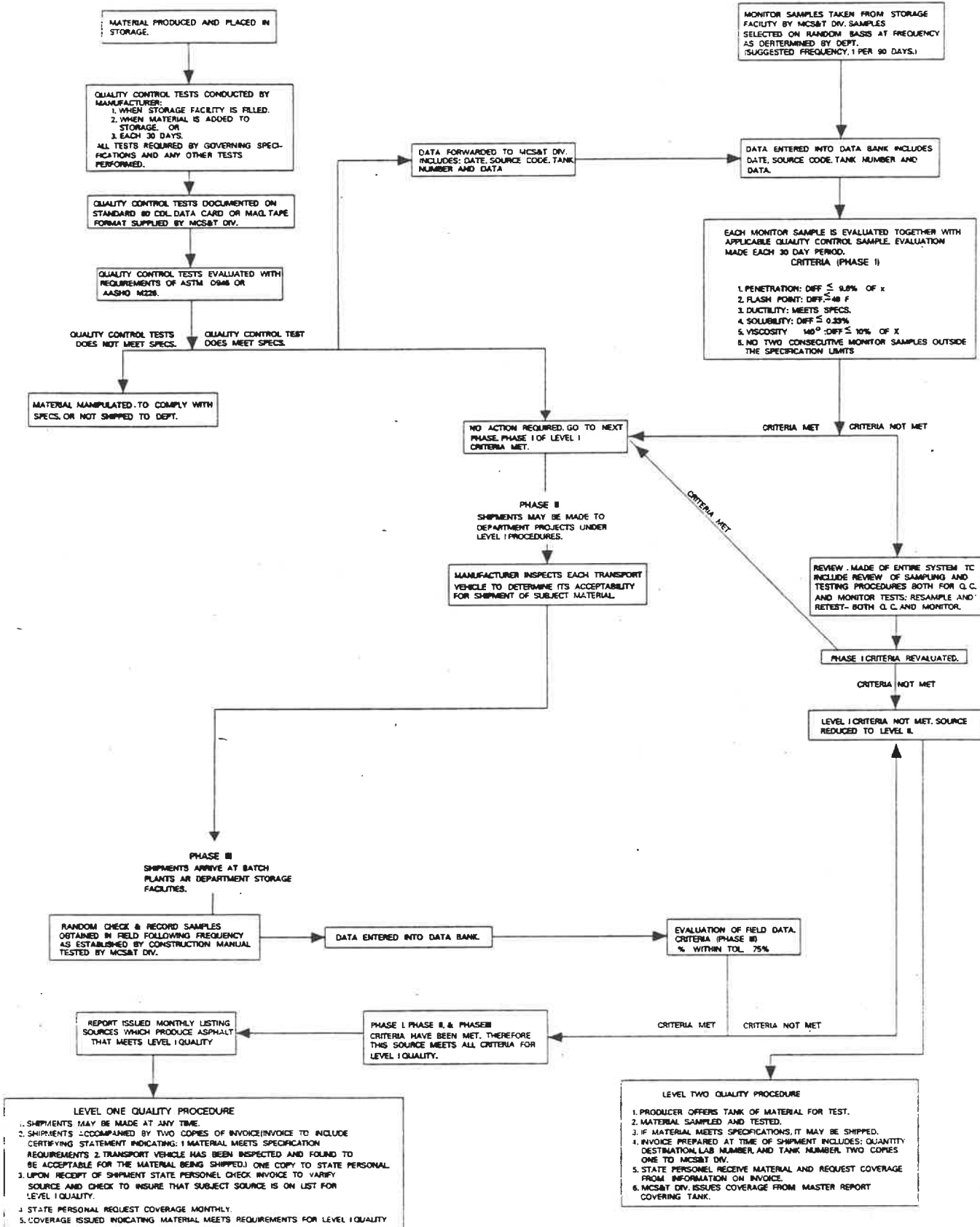
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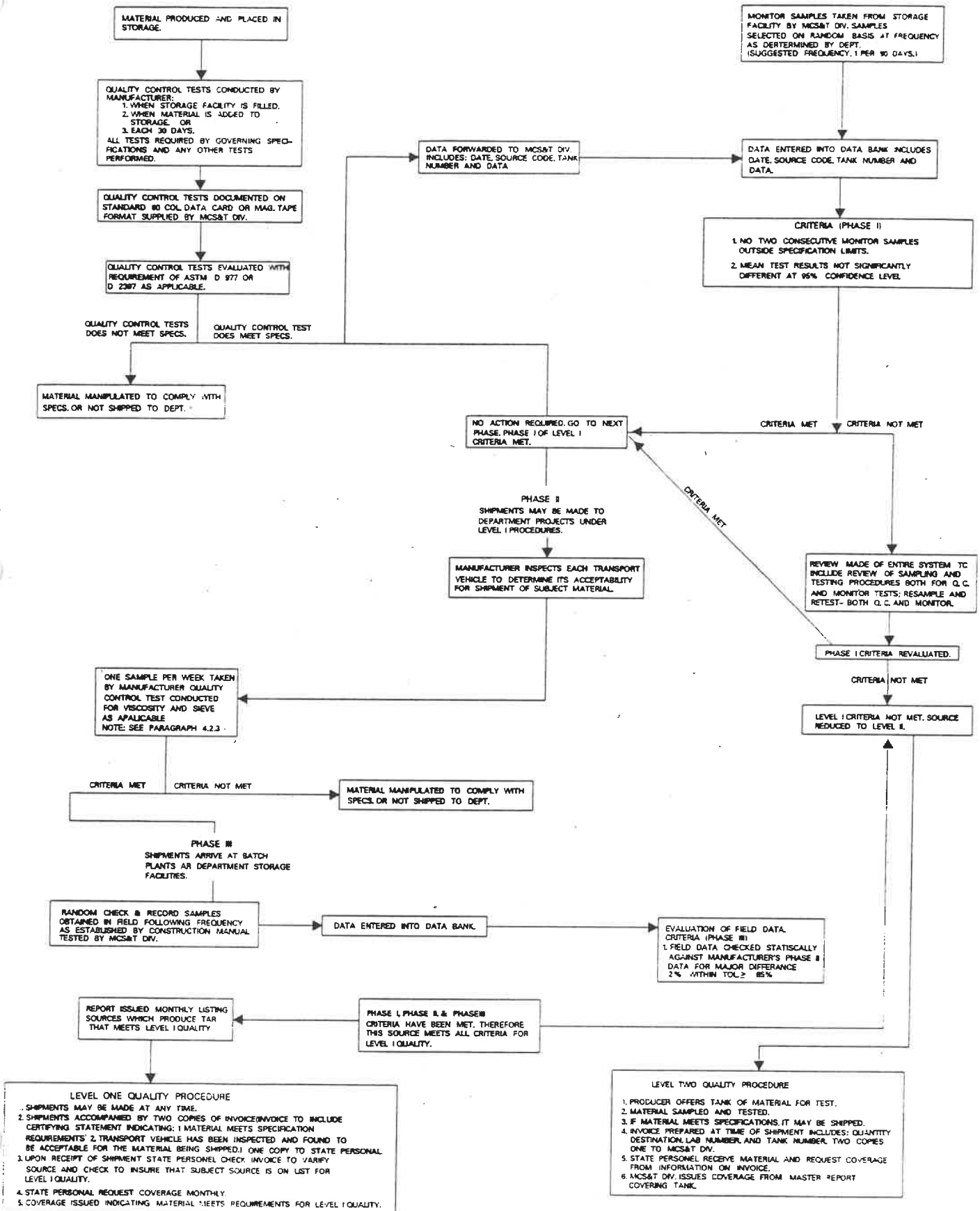
ATTACHMENT 1



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FLOW CHART
 ASPHALT EMULSIONS CERTIFICATION
 PROCEDURE

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FLOW CHART

CUT-BACK ASPHALT CERTIFICATION PROCEDURE

