

The AASHTO Accreditation Program

AAP Procedures Manual

March 2006

The AASHTO Standing Committee on Highways approved the following changes to the October 2005 edition of the AAP Procedures Manual.

These changes are reflected in the March 2006 edition of the AAP Procedures Manual.

1. Multiple Sections
Changes made throughout to reflect the recognition of the participation in the U.S. Army Corps of Engineers (USACE) in the AASHTO Accreditation program.
2. Note 2
A new was added to include the additional information required by a USACE assessment.
3. Section 4.1
Contact information for the USACE was added.
4. Multiple Sections
Editorial changes have been made throughout.

The AASHTO Standing Committee on Highways approved the following changes to the April 2004 edition of the AAP Procedures Manual.

These changes are reflected in the October 2005 edition of the AAP Procedures Manual.

1. R18
In Table 1, temperature check and interval for ovens has been replaced. The thermometric device is now to be standardized at least every 12 months.
2. R18, Multiple Tables
In Tables 1 through 7, the term “Calibrate” has been replaced with “Standardize” for various items.
3. R18
In Table 3, the term “Weight” has been replaced with “Mass”.
4. R18
In Table 7, water retention apparatus, flexural bond apparatus, and mixers have been added.
5. R18, Multiple Sections
Editorial changes have been made throughout.

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**PROCEDURES MANUAL
AASHTO ACCREDITATION PROGRAM**

1. Introduction

The American Association of State Highway and Transportation Officials (AASHTO) established the AASHTO Accreditation Program (AAP) in June 1988. AASHTO is a national association of state highway and transportation departments with membership from all fifty states, the District of Columbia, and Puerto Rico. Its purpose is to foster the development, operation, and maintenance of a nationwide, integrated transportation system.

The objective of AAP is to provide a mechanism for formally recognizing the competency of a testing laboratory to perform specific tests on construction materials. It is a voluntary program available to all laboratories including independent laboratories, manufacturers' in-house laboratories, university laboratories, and governmental laboratories. AASHTO encourages participating laboratories to provide feedback on the operation of AAP.

The AASHTO Materials Reference Laboratory (AMRL) provides technical support and administrative coordination for AAP. AMRL is a Research Associate Program located at the Building and Fire Research Laboratory of the National Institute of Standards and Technology (NIST) under the sponsorship of AASHTO.

Note 1 -- The AAP is under the auspices of AASHTO, not NIST or ASTM. AASHTO has assigned responsibility for monitoring and administrating the operation of AMRL and AAP to its Highway Subcommittee on Materials (HSOM). The Subcommittee has in turn established an AMRL Administrative Task Group (ATG) to assist it in carrying out these responsibilities. The members of the AMRL Administrative Task Group are appointed by the Chair of the Highway Subcommittee on Materials.

AAP operates under procedures shown in Figure 1 and includes the fields of construction materials testing listed in Table 1. This table gives the on-site assessment, quality system evaluation and proficiency testing requirements for each field of testing. AMRL provides laboratory assessments, quality system evaluations, and proficiency testing samples for laboratories testing soils, asphalt cements, emulsified asphalts, hot mix asphalt

(HMA), and HMA aggregates. Similar services offered by the Cement and Concrete Reference Laboratory (CCRL) are used for laboratories testing hydraulic cement, portland cement concrete (PCC), PCC aggregates, and unit masonry. CCRL is also a Research Associate Program located at NIST but is under the sponsorship of ASTM (Note 1). Additionally, laboratory inspection and quality system evaluation services offered by the U.S. Army Corps of Engineers (USACE), Materials Testing Center located in Vicksburg, Mississippi are used for laboratories testing soils, asphalt cements, emulsified asphalts, hot mix asphalt (HMA), aggregates, concrete and masonry (Note 2).

Note 2 – The typical USACE assessment does not include a detailed review of all test methods and does not satisfy AASHTO requirements for accreditation. Laboratories seeking AASHTO accreditation based on USACE assessment must request the USACE to provide an assessment that satisfies AASHTO accreditation requirements.

2. Scope of AASHTO Accreditation Program

AASHTO will accredit laboratories for specific tests on asphalt cements, cutback asphalts, emulsified asphalts, soils, aggregates, HMA, hydraulic cement, PCC, and unit masonry. The specific tests for which AASHTO grants accreditation are those included in the scope of the AMRL, CCRL and USACE assessment programs (Note 2) for which both apparatus and procedures are evaluated.

Accreditation applies to testing performed within the confines of the laboratory accredited and testing performed in the field (on-site). Temporary facilities require separate accreditation.

Note 3 -- Temporary facilities include trailers or other structures set up for a specific job and the personnel and equipment associated with them.

AASHTO accreditation requires a laboratory to comply with the requirements of AASHTO R18, *"Recommended Practice for Establishing and Implementing a Quality System for Construction Materials Testing Laboratories."* At the option of the

laboratory, by meeting additional requirements, accreditation can be extended to include recognition of a laboratory's compliance with the following standards:

ASTM C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation

ASTM C1093 – Standard Practice for Accreditation of Testing Agencies for Unit Masonry

ASTM C1222 - Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement

ASTM D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials

ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM E329 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials used in Construction

ISO/IEC 17025 - General Requirements for the Competence of Calibration and Testing Laboratories

3. AASHTO Accreditation Program Criteria

3.1 Quality System Criteria - The laboratory shall establish, implement, and maintain a quality system which meets the requirements specified in AASHTO R18.

Note 4 - A laboratory must satisfy additional criteria in order to be recognized by AASHTO for complying with ASTM standards D3666, D3740, C1077, C1093, C1222, and E329 and ISO/IEC 17025.

3.2 On-Site Assessment and Quality System Evaluation Criteria - The laboratory shall receive required AMRL, CCRL or USACE (Note 2) on-site assessments and quality system evaluations. Laboratories accredited by the AAP for ISO/IEC 17025 may elect to have the R18 quality system review performed in conjunction with their ISO audit. Laboratory assessments of accredited laboratories must be received in the normal sequence of the AMRL, CCRL and/or USACE (Note 2) tours. In cases where the first assessment of a laboratory

seeking accreditation is out-of-sequence to the AMRL, CCRL and USACE (Note 2) tours, the second assessment must be received during the next regularly scheduled visit if more than 6 months has lapsed since the date of the first assessment. Failure to receive applicable on-site assessments will result in revocation of accreditation. The laboratory shall, within 90 calendar days of the date of issuance of the formal assessment report noting the deficiencies, provide AMRL with satisfactory evidence that all deficiencies noted were either corrected or that action has been taken to correct the deficiencies.

3.3 Proficiency Testing Criteria - The laboratory shall participate in all required AMRL and CCRL proficiency sample programs. The laboratory shall arrange for CCRL to send its proficiency sample rating sheets to AMRL. Repeated occurrences of either nonparticipation or poor results will result in suspension of applicable accreditation. Proficiency sample results which are beyond 2 standard deviations of the grand average are considered to be poor results. The laboratory shall, within 60 calendar days of the date of issuance of the proficiency sample report, (1) investigate to determine the reason(s) for the poor results, (2) record and report to AMRL the results of the investigation and any corrective actions taken, and (3) maintain records of the investigation and corrective actions taken.

3.4 Personnel Qualification Criteria - The laboratory's personnel shall meet the following qualifications:

3.4.1 Manager - The manager of inspection or testing services shall: (1) be a full-time employee of the laboratory, (2) be a registered engineer or a person with equivalent science-oriented education, or have experience in satisfactorily directing testing or inspection services, or both, for the materials covered by the accreditation, and (3) have at least 3 years experience in the inspection and testing of the materials.

3.4.2 Supervising Laboratory Technician - The supervising laboratory technician shall have at least 3 years experience in the inspection and testing of highway construction materials.

3.4.3 Supervising Field Technician - The supervising field technician shall have at least 3 years experience in the inspection and testing of highway construction materials.

3.5 Additional General Criteria

3.5.1 The laboratory shall notify AMRL in writing within 60 calendar days of any major change in its quality system, capability to perform tests for which it is accredited, laboratory ownership, location (for permanent facilities), managerial personnel, facilities, and any other change which may affect the scope of its accreditation.

3.5.2 The laboratory's functional organization shall be consistent with that reported by the laboratory and appear adequate to support their testing capability.

3.5.3 Interviews with supervisory and technical staff members responsible for performing tests shall indicate that the documented practices for training and assuring competency are consistent with actual laboratory practice.

3.5.4 The laboratory operation shall not be impaired by management problems.

3.5.5 The laboratory shall have managerial staff with the authority and resources needed to discharge their duties.

3.5.6 The laboratory shall maintain a ratio of supervisory to non-supervisory personnel which ensures adequate supervision.

3.5.7 The laboratory shall provide effective separation between neighboring testing areas which are incompatible.

3.5.8 The laboratory shall be organized in such a way that confidence in its independence of judgment, integrity, and impartiality is maintained at all times.

3.5.9 The laboratory personnel shall have the necessary education, training, technical knowledge and experience for their assigned functions.

3.5.10 The laboratory shall conduct tests and render reports accurately, objectively, and without bias.

3.5.11 The laboratory shall use good organization practices and shall take adequate measures to ensure good housekeeping in the laboratory.

3.5.12 The laboratory's work load, indicated by their record system, shall be consistent with available equipment, facilities and personnel.

3.5.13 The laboratory shall pay all fees charged for services required for accreditation.

3.5.14 For those test methods for which it is seeking accreditation:

- a) The laboratory shall maintain facilities (fixed or mobile) for proper control of the laboratory environment.
- b) The laboratory shall maintain facilities for proper storage, handling and conditioning of test specimens and samples.
- c) The laboratory shall maintain necessary calibration equipment and reference standards.
- d) The laboratory shall maintain facilities and equipment conforming to specification requirements necessary for the testing performed.
- e) The laboratory shall have the test areas, energy sources, lighting, heating and ventilation necessary to facilitate performance of tests.
- f) The laboratory shall have an environment which does not adversely affect test results and shall have facilities for the effective monitoring, control and recording of environmental conditions as appropriate.
- g) The laboratory shall demonstrate the capability of performing tests according to the current version of test specifications.
- h) The laboratory shall demonstrate adequate care when recording and processing data and test results.
- i) The laboratory shall demonstrate proper techniques for selecting, identifying, handling, conditioning, storing and retaining test samples.

3.6 AASHTO ISO Accreditation

3.6.1 General - A laboratory interested in obtaining accreditation for ISO/IEC 17025, *General Requirements for the Competence of Calibration and Testing Laboratories*, must first have a current and valid AASHTO R18 accreditation. A laboratory must also have implemented, or be implementing, a quality system which satisfies the requirements of ISO/IEC 17025. Additionally, to receive ISO/IEC 17025 accreditation from AASHTO a laboratory must receive an on-site ISO/IEC audit from AMRL (in

addition to the applicable AMRL, CCRL and USACE (Note 2) technical test-method assessments) and resolve all nonconformities. After initial accreditation, the AASHTO Accreditation Program will monitor the compliance of the laboratory using several surveillance activities, including proficiency testing, on-site technical assessments by AMRL, CCRL and USACE (Note 2), surveillance audits (see Section 3.6.3), and periodic requests to the laboratory for documents and records.

3.6.2 How To Get Started - A laboratory seeking accreditation for ISO/IEC 17025 must submit a *Request for ISO Audit* form, along with a copy of its current quality manual and supporting documentation, such as standard operating procedures (SOPs), a copy of its most recent internal audit report, and a copy of the records from its most recent management review. An AAP ISO Auditor will then initiate the process by conducting an in-house review of the quality system documentation. If the review indicates that the quality system is essentially in compliance with the requirements of ISO/IEC 17025, the Auditor will contact the laboratory and schedule a date for the initial on-site audit of the laboratory. If not, the Auditor will contact the laboratory and obtain additional information.

3.6.3 The ISO Audit Process - The initial on-site audit of the laboratory will cover all applicable sections of ISO/IEC 17025 and will last approximately two (2) days. The AAP will grant accreditation if all nonconformities have been resolved within the stated time frame. After accreditation has been granted, the AAP ISO on-site audits will alternate between surveillance audits and re-audits. Surveillance audits are on-site visits to ISO accredited laboratories undertaken to ensure that such laboratories continue to operate in compliance with AAP requirements. The AAP surveillance audits will normally be less comprehensive than the initial audit or re-audits and will last approximately one (1) day. The first surveillance audit will occur approximately 12 months after the laboratory has been granted accreditation for ISO/IEC 17025. AAP ISO audits will then alternate between re-audits and surveillance audits at intervals of approximately 27 months. The interval between complete re-audits, therefore, will be approximately 54 months (4 ½ years). Re-audits will be comprehensive and, similar to the initial audit, will last approximately two (2) days.

4. Accreditation Process (see Figure 1)

4.1 Application - A laboratory desiring information on AAP or AMRL on-site assessment, quality system evaluation, and proficiency sample programs should contact AMRL at the following address:

AASHTO Materials Reference Laboratory
National Institute of Standards and Technology
100 Bureau Drive, Stop 8619
Building 202, Room 211
Gaithersburg, Maryland 20899-8619
Telephone: (301) 975-5450

Information on the CCRL on-site assessment, quality system evaluation, and proficiency sample programs may be obtained at the following address:

Cement and Concrete Reference Laboratory
National Institute of Standards and Technology
100 Bureau Drive, Stop 8618
Building 226, Room A365
Gaithersburg, Maryland 20899-8618
Telephone: (301) 975-6704

Information on the USACE on-site assessment and quality system evaluation (Note 2) may be obtained at the following address:

U.S. Army Engineer Research & Development Center
3909 Halls Ferry Road
Vicksburg, Mississippi 39180-6199
Telephone: (601) 634-3610

Laboratories requesting accreditation must complete and sign an accreditation request form and make arrangements to receive appropriate AMRL, CCRL or USACE (Note 2) on-site assessments, quality system evaluations, and proficiency samples. Forms will be included in the application package sent to the laboratory to facilitate the laboratory's response to this requirement.

The applicant laboratory must agree to comply with the requirements for accreditation and supply any information needed for the evaluation of the laboratory.

A laboratory may obtain initial accreditation based on an application submitted subsequent to an on-site assessment if: (1) the on-site assessment includes a quality system review of the applicable field(s), (2) the application is submitted within 90 calendar days of the date of issuance of the final report of the on-site assessment, and (3) the application is accompanied by a deficiency resolution report as described in Section 4.4.4.

Laboratories wishing to expand the scope of their accreditation to include a new field(s) of testing must include an applicable quality system evaluation(s) in the scope of their on-site assessment and must submit a deficiency response as described in Section 4.4.4.

Applications for initial accreditation and requests for accreditation in new fields of testing which do not satisfy the above requirements will be considered but may require an additional visit to the laboratory before processing can proceed.

4.2 On-Site Assessment - The on-site assessment and quality system evaluation requirements specified by AAP include a visit by AMRL, CCRL or USACE (Note 2) laboratory assessors to evaluate the apparatus and procedures used to conduct the physical tests for which the laboratory requested accreditation and to determine if the laboratory's quality system implementation activities are consistent with those specified in the laboratory's quality system manual. Chemical tests for hydraulic cement are evaluated based on a review of the laboratory's test qualification data as described in AASHTO T105 and ASTM C114. AMRL bases its on-site assessments on either AASHTO or ASTM standard methods of test, while CCRL and USACE (Note 2) assessments are based on ASTM methods.

AMRL, CCRL and USACE (Note 2) laboratory assessors are employed full-time and are not associated with any laboratory seeking accreditation. Therefore, there is no possibility of conflict of interest.

The AMRL, CCRL and USACE (Note 2) operate laboratory assessment programs which cover North America. Typical AMRL, CCRL and USACE tours take approximately 24 months for completion.

AMRL generally uses one assessor for soil, aggregate and bituminous materials testing laboratories. However, AMRL may elect to send two assessors, at the same time, to laboratories that test soil, aggregate and bituminous materials. A single CCRL assessor conducts the inspection of a hydraulic cement, PCC, PCC aggregate, and masonry test laboratory. A single USACE assessor conducts the assessment of a soil, aggregate, bituminous, concrete, and masonry test laboratory (Note 2). Therefore more than one assessor could visit a laboratory requesting coverage of all fields of testing included in AAP. These visits would generally occur at different times. The time required for each visit will vary depending on the number of tests covered and the willingness of the laboratory to assist the assessor.

Those laboratories seeking recognition for compliance to ISO/IEC 17025 must receive a separate AAP ISO Audit in addition to AMRL, CCRL and USACE (Note 2) on-site assessments (see Section 3.6.3).

At the completion of each AMRL, CCRL and USACE assessment, the assessor holds a briefing conference with the laboratory supervisor to summarize the findings and point out deficiencies requiring correction (deviations from standard methods of test for which accreditation is requested or problems with the laboratory's quality system). The assessor leaves a copy of a preliminary report, signed by the assessor and the laboratory manager, identifying the deficiencies. On returning to the office, the assessor prepares a formal report and sends it to the laboratory.

The laboratory must provide AMRL with satisfactory evidence that all deficiencies noted were either corrected or that action has been taken to correct deficiencies before AASHTO can grant accreditation (see Section 4.4.4). In most cases, this evidence will take the form of written documentation. Occasionally, however, because of action or inaction by the management of a laboratory, another visit to the laboratory may be required before granting accreditation. The laboratory may have to pay an additional fee for this service if it is required.

A laboratory may obtain additional specific information about the AMRL, CCRL and USACE on-site assessment programs by contacting the AMRL, CCRL and USACE (see Section 4.1 for addresses).

4.3 Proficiency Testing - Proficiency testing is an additional factor used to evaluate the performance of a laboratory. It provides information not otherwise available from the on-site assessment and a means of continued monitoring of laboratory performance. AAP requires laboratories to participate in AMRL or CCRL proficiency testing programs depending on the field(s) of testing for which the laboratory is seeking accreditation (see Table 1). Participation includes performing all test methods within the scope of a laboratory's accreditation on all applicable samples distributed within the specified time frame and returning the resulting data to AMRL or CCRL for analysis. If not already participating, a laboratory submitting an accreditation request form will be enrolled in all applicable AMRL proficiency testing programs and billed the appropriate amount.

Proficiency samples are distributed by AMRL and CCRL on 6 or 12-month intervals. HMA, emulsified asphalt, blended cement, and masonry cement samples are distributed once a year; soil, asphalt cement, aggregates, portland cement, and PCC samples are distributed twice a year. The distribution of proficiency samples by AMRL and CCRL will not generally coincide with the on-site assessment.

Initial accreditation may be granted to a laboratory if it has enrolled in the appropriate proficiency testing program(s) but the distribution schedule is such that it has not received samples for testing. This assumes all other criteria for the accreditation have been met. However, continued participation in the program(s) is required to maintain accreditation.

See Section 3.3 for Proficiency Testing Criteria.

A laboratory may obtain additional information on the AMRL or CCRL proficiency testing programs by contacting the AMRL or CCRL (see Section 4.1 for addresses).

4.4 Accreditation Decisions - AASHTO uses a Management Council approach in reaching decisions on accreditation as described in ASTM Standard E994. AMRL acts as the technical advisor in compiling all necessary information resulting from the on-site assessment, quality system evaluation, proficiency testing, and communications from the laboratory which describe steps taken to correct identified deficiencies. The accreditation decision is made by the Chair, AMRL Administrative Task Group of the AASHTO Highway Subcommittee on Materials, who has been designated by the Subcommittee to act as a Management Council for the AAP.

All accreditation decisions are confined to those matters specifically related to the scope of the accreditation being considered.

AASHTO evaluates a laboratory's accreditation status after AMRL, CCRL, USACE, and AAP ISO assessments; every 12 months after the initial accreditation; and whenever there is evidence to question a laboratory's conformance to accreditation requirements.

4.4.1 Initial Accreditation - AASHTO accreditation is initially granted on a test-by-test basis after successful completion of a process which includes submission of an application and payment of fees, on-site assessment and quality system evaluation of

the laboratory, enrollment in the required proficiency testing programs, and resolution of identified deficiencies. If a laboratory has a deficiency in a specific test, it may choose to withdraw accreditation for the test rather than respond to the deficiency. AMRL staff review the documents submitted by the laboratory and prepare a report for review by the Chair of the AMRL Administrative Task Group. If accreditation is denied, the laboratory is notified of the reason for the denial (Note 4) and given an opportunity to respond or appeal the decision. If a laboratory satisfies all AASHTO accreditation criteria, the Chair of the AMRL Administrative Task Group approves the laboratory's request for accreditation, and AMRL prepares a certificate of accreditation for the signature of the Chair, AASHTO Highway Subcommittee on Materials and the Executive Director of AASHTO. The certificate is sent to the laboratory, and the laboratory's information is entered in the AAP Directory of Accredited Laboratories (see Section 6).

Note 5 – Email and fax will be the primary forms of communication. In all cases, a reply from the laboratory that the notification was received will be requested. Certified mail will be used if the laboratory does not respond to the email and/or fax notification.

4.4.2 Annual Accreditation Review - The accreditation status of a laboratory is reviewed annually. The annual accreditation review determines whether the laboratory has received all applicable on-site assessments and quality system evaluations. The review also includes an evaluation of updated personnel information and proficiency testing data. An accreditation package is sent to the laboratory every year. A laboratory must return the accreditation documents to AMRL within 45 calendar days of issuance of the accreditation package or risk suspension or revocation of accreditation. AMRL staff review the documents submitted and prepare a report for review by the Chair of the AMRL Administrative Task Group. If a laboratory does not return the documents within 45 calendar days, or if a review indicates that the laboratory has not complied with accreditation criteria, action will be taken to suspend accreditation in appropriate areas and the laboratory will be notified of the unresolved criteria.

4.4.3 Periodic On-Site Assessments and Quality System Evaluations of Accredited Laboratories - An accredited laboratory must have AMRL, CCRL or USACE (Note 2) conduct an on-site assessment(s) of

their test facilities at routine intervals (see Section 4.2). Each on-site assessment and quality system evaluation of an accredited laboratory provides the laboratory with an opportunity to change the scope of its accreditation. In addition, laboratories recognized for compliance to ISO/IEC 17025 must receive an AAP ISO audit (see Section 3.6.3). The process which follows each periodic on-site assessment and quality system evaluation of an accredited laboratory is similar to the process followed after the initial on-site assessment and quality system evaluation described in Section 4.4.1, except that: (1) the report prepared by AMRL staff is not forwarded to the Chair of the AMRL Administrative Task Group if it indicates full compliance with AAP criteria and no change in the scope of the laboratory's accreditation; and (2) a new accreditation certificate is not issued. The directory will reflect any changes in the scope.

4.4.4 Deficiency Resolution Following an On-Site Assessment - If notified of a deficiency resulting from an on-site assessment, a laboratory must respond to AMRL within 90 calendar days of the issuance of the final report. The response must include a description of the corrective action taken and substantiating evidence, such as records, copies of newly prepared or revised documents, equipment invoices, or photographs. If more than 90 calendar days are needed to resolve a deficiency, the laboratory shall provide AMRL with a written plan for resolving the deficiency including an estimated completion date and any evidence of action taken such as equipment purchase orders. Plans for future resolution of deficiencies will be reviewed and may result in accreditation being granted, denied, suspended, or revoked.

If a laboratory does not respond within 90 calendar days of the issuance of the report, or if responses received are inadequate, action will be taken to suspend or deny accreditation in appropriate areas and the laboratory will be notified of the unresolved criteria (Note 4). If a laboratory does not resolve a deficiency within 180 calendar days of the issuance of the final report, and desires to maintain its accreditation, an additional on-site assessment may be required.

4.4.5 Deficiency Resolution Following Notification of Unresolved Criteria - When notified of unresolved criteria (see Note 4) a laboratory is given the opportunity to respond to the conditions specified in the notification. Responses will be reviewed and will result in accreditation being granted, reinstated, denied, suspended, or revoked.

4.5 Appeal Procedure - A laboratory denied accreditation or whose accreditation has been revoked has the right of appeal if it believes it has submitted sufficient information to warrant accreditation. AASHTO uses a two-level appeal procedure as documented below.

4.5.1 First-Level Appeal - A laboratory makes a first-level appeal by sending explanations and supporting documentation to AMRL. The appeal and supporting documentation must be sent within 30 calendar days from receiving notice of denial or revocation. Upon receipt of an appeal, AMRL prepares a memorandum for the Chair of the AMRL Administrative Task Group (ATG) presenting the appeal and the laboratory's supporting documentation. AMRL mails the memorandum and supporting documentation to the six voting members of the ATG which includes the Chair, the Secretary, and the four regional representatives for comments and recommendations.

Based on all the comments and recommendations made, the ATG Chair prepares a first-level appeal ballot for the voting members requesting that they agree or disagree with the recommendation of the Chair. Support of at least 2/3 of the voting members of the ATG is required to uphold the recommendation of the Chair. If the recommendation is not upheld, the opposite position is the ruling of the ATG.

The laboratory is notified of the decision on its appeal by certified mail, return receipt requested. Decisions are mailed within 15 calendar days from when the decision is made by the ATG. If the appeal is denied, the notification letter will include the reason for the denial and information on the second-level appeal process which is available to the laboratory. If the laboratory decides to resolve the issue, the laboratory must provide AMRL with evidence of corrective action taken. If the appeal is granted, the scope of the laboratory's accreditation is revised to include the additional test(s).

4.5.2 Second-Level Appeal - A laboratory may make a second-level appeal by informing the Chair of the Highway Subcommittee on Materials (HSOM) in writing within 30 calendar days after receipt of the denial of the first-level appeal. A special review panel comprised of the HSOM Chair and three members chosen by the HSOM Chair from the HSOM is established to hear the second-level appeal. Members of the ATG who participated in the first-level appeal are not eligible for membership on the panel. The laboratory will be notified in writing of

the appeal hearing time. At the discretion of the HSOM Chair, the hearing may be either a face-to-face meeting or a telephone conference call between the panel and the laboratory representative. The hearing will be held within 45 calendar days of receiving the notice of the second-level appeal.

Travel expenses for panel members participating in the appeal hearing will be covered by AAP, while the laboratory will be responsible for its expenses related to the hearing. Following the hearing, AMRL, in consultation with the HSOM Chair, will ballot the panel. On the ballot, the panel will vote to either support or deny the appeal. Support by at least three members of the panel will be required to grant the appeal; otherwise, the appeal is denied.

The laboratory is notified of the decision on its second-level appeal within 30 calendar days of the hearing by certified mail, return receipt requested. If the appeal is denied, the laboratory may decide to resolve the issue by providing AMRL with evidence of the corrective action taken. If the appeal is granted the scope of the laboratory's accreditation is revised to include the additional test(s).

4.6 Suspension and Revocation of Accreditation - A laboratory may have its entire accreditation or its accreditation for specific test methods suspended or revoked if it is found not to conform to AAP criteria.

4.6.1 Suspension of Accreditation - Suspension is a temporary removal of the accredited status of a laboratory when it is found to be out of compliance with the terms of its accreditation. The action of suspension is not necessarily tied to the annual review process and may occur at any time for cause. Reasons for suspension include, but are not limited to, loss of key personnel, loss of major equipment, damage by fire or flood, changing laboratory location, failure to pay fees, and failure to resolve deficiencies related to the requirements of accreditation. The Chair of the ATG will notify a laboratory (see Note 4) of the reasons for and conditions of the suspension, the action required for reinstatement, and the deadline for satisfactorily completing the action.

During the suspension, the laboratory is prohibited from using the AAP logo on its test reports. Additionally, the AAP directory which lists accredited laboratories will show the laboratory's status as suspended.

4.6.2 Revocation of Accreditation - A laboratory may have its accreditation revoked if the laboratory

fails to meet program requirements or it is concluded that the deficiencies are too major and/or too numerous to be corrected in a reasonable time frame. Generally, the decision to revoke a laboratory's accreditation is made by the Chair of the ATG. However, the AASHTO Executive Director may unilaterally revoke accreditation of a laboratory if the laboratory acts in such a manner as to bring AASHTO into disrepute or the laboratory makes any statements relative to its accreditation that AASHTO considers false or misleading. The laboratory will be notified (see Note 4) of the reasons for the revocation. The laboratory may appeal the revocation as outlined in Section 4.6.3.

A laboratory having its accreditation revoked must return its certificates of accreditation and cease use of the AAP logo on its reports, correspondence, or advertising. The AAP directory will no longer list the revoked laboratory. A revoked laboratory, or a laboratory which voluntarily withdraws its accreditation, may be required to reapply for accreditation as if it were a new laboratory and receive new on-site assessments.

4.6.3 Appealing Revocation - After receipt of a notification of revocation, a laboratory may voluntarily withdraw its accreditation or enter an appeal which will be processed according to the procedures in Section 4.5.1. If the laboratory appeals the decision within 30 calendar days of notification, the proposed revocation may be stayed pending the outcome of the appeal.

4.7 Supplemental On-Site Visits - At the request of the Chair of the Administrative Task Group, assessors will make supplemental on-site visits to an accredited facility to (1) investigate a history of not correcting previously identified deficiencies, and (2) ensure that changes in the laboratory's quality system, capability to perform tests for which it is accredited, laboratory ownership, location, management and technical personnel, and equipment and facilities do not affect the laboratory's accreditation status. These supplemental on-site visits are scheduled with laboratory personnel and will be made at additional cost to the laboratory.

5. Certificate of Accreditation

AASHTO issues a certificate of accreditation which includes the name and location of the laboratory, and a reference to the Web address where the laboratory's scope of accreditation and specific test methods are listed. Laboratories that have also demonstrated

compliance with ISO/IEC 17025 receive a different certificate (see Figures 2 and 3).

Laboratories receive certificates free of charge upon initial accreditation. Laboratories requesting an additional copy of a certificate will be charged a \$50 processing fee for each certificate issued.

6. Directory

AASHTO maintains a directory of accredited laboratories containing the following information for each laboratory:

- a) Name and location of the laboratory
- b) Contact person at the laboratory
- c) Telephone number
- d) Accreditation initiation dates
- e) Scope of the accreditation

A current list of AAP-accredited laboratories is available on the Internet at <http://www.amrl.net>.

7. Conditions for Accreditation

As stated earlier, the objective of AAP is to provide a mechanism for formally recognizing the competency of a testing laboratory to perform specific tests on construction materials. AASHTO accreditation is not intended to imply that an individual or a laboratory has the capability of rendering engineering judgments as to whether the materials covered by the accreditation are suitable for specific applications or as to how the materials covered by the accreditation are to be used in a specific application.

The accredited laboratory may publicize their accredited status (including the use of the AAP logo) in reports, stationery, and business and trade publications with the restriction that the advertising accurately reflects the scope of the laboratory's accreditation and does not imply product certification, approval, or endorsement by AASHTO.

Use of the AAP logo is based on the following:

- a) AASHTO reserves the right to control the use of its logo.

- b) A laboratory which meets the criteria of AASHTO Practice R18 may use the logo:



while a laboratory accredited for both AASHTO Practice R18 and ISO/IEC 17025 may use the logo:



Note 5 - Photographic and electronic copies of the logo are available from AMRL upon request.

- c) Permission for advertising AAP accreditation and the use of the logo is conditional on and limited to those cases of test reports that describe testing within the scope of AAP accreditation. On test reports which display the AAP logo, the laboratory has the responsibility to distinguish between those test results that are within the scope of the accreditation and those that are not. This distinction may be made by placing an asterisk after test results not covered by the accreditation and a footnote stating "This test result is not covered by our current AAP accreditation."

The laboratory's accreditation certificates must be returned to AMRL and advertising references to AAP accreditation must be discontinued (a) when accreditation has been revoked by AAP, (b) when the laboratory voluntarily withdraws from participation in AAP, or (c) if the laboratory becomes unable to conform to any of the criteria required for AAP accreditation.

8. Fees

Laboratories participating in AAP are charged appropriate fees for proficiency samples and on-site assessments according to AMRL's, CCRL's and USACE's normal billing procedures. In addition, laboratories participating in AAP will

receive an invoice from AASHTO each year for the annual AAP administrative fee.

A laboratory may obtain additional specific information about the fees for AMRL, CCRL and USACE services by contacting the AMRL, CCRL and USACE (see Section 4.1 for addresses).



Figure 2 – Certificate of Accreditation for R18

**American Association of State Highway and Transportation Officials
AASHTO Accreditation Program - Certificate of Accreditation**

This is to signify that



ABC Laboratory, Inc.

Anytown, USA



has demonstrated proficiency for the testing of construction materials
and has met the minimum requirements in
AASHTO R18 and ISO/IEC 17025
set forth by the AASHTO Highway Subcommittee on Materials.

The scope of accreditation can be obtained by viewing
the AASHTO Directories of Accredited Laboratories (www.amrl.net)
or by contacting AMRL.


Executive Director



Chair, AASHTO Highway
Subcommittee on Materials



Figure 3 – Certificate of Accreditation for R18 and ISO/IEC 17025

Table 1

Fields of Testing and On-Site Assessment, Quality System Evaluation, and Proficiency Testing Requirements

Fields of Construction Materials Testing	On-Site Assessment (Including Quality System Evaluation) Requirements	Proficiency Testing Requirements Including
1. Soils ¹ (ASTM D3740)	AMRL or USACE Soils Assessment Including Quality System Evaluation ⁴	AMRL Soils Proficiency Samples ³
2. Asphalt Cements/Cutback Asphalts ¹ (ASTM D3666)	AMRL or USACE Asphalt Cements Assessment Including Quality System Evaluation ⁴	AMRL Asphalt Cement Proficiency Samples ³
3. Emulsified Asphalts ¹ (ASTM D3666)	AMRL or USACE Emulsified Asphalt Assessment Including Quality System Evaluation ⁴	AMRL Emulsified Asphalt Proficiency Samples ³
4. Hot Mix Asphalt ¹ (ASTM D3666)	AMRL or USACE HMA Assessment Including Quality System Evaluation ⁴	AMRL HMA Proficiency Samples ³
5. Aggregates ^{1,2} (ASTM C1077, D3666)	AMRL, CCRL or USACE L Aggregate Assessment Including Quality System Evaluation ⁴	AMRL Coarse & Fine Aggregate Proficiency Samples ³
6. Portland Cement Concrete (PCC) ² (ASTM C1077)	CCRL or USACE PCC Assessment Including Quality System Evaluation ⁴	CCRL Concrete Proficiency Samples ³
7. Hydraulic Cement ² (ASTM C1222)	CCRL or USACE Hydraulic Cement Assessment Including Quality System Evaluation	CCRL Hydraulic Cement Proficiency Samples ⁵
8. Unit Masonry ² (ASTM C1093)	CCRL Concrete Masonry Unit Laboratory Assessment Including Quality System Evaluation ⁴	CCRL Concrete Masonry Unit Proficiency Samples ³
9. AAP ISO Audit	Those laboratories seeking recognition for compliance to ISO/IEC 17025 must receive a separate AAP ISO Audit in addition to AMRL, CCRL and USACE on-site assessments.	AAP requirements apply

¹ Accreditation provided for AASHTO and ASTM test methods included in the scope of the AMRL on-site assessment program and ASTM standards D3666, D3740, and E329.

² Accreditation provided for ASTM test methods (and equivalent AASHTO test methods) included in the scope of the CCRL and USACE (Note 2) on-site assessment program which cover both the test apparatus and procedures and ASTM standards C1077, C1222, C1093, and E329. Chemical tests for hydraulic cement are evaluated based on a review of the qualification data test as described in AASHTO T105 and ASTM C114.

³ A laboratory must participate in any proficiency sample program (PSP) that includes a test method(s) for which accreditation is requested.

⁴ Provided in conjunction with the on-site visit.

⁵ A laboratory must test any CCRL hydraulic cement proficiency samples applicable to the materials and tests for which accreditation is requested. CCRL distributes proficiency samples for three types of hydraulic cement: portland cement, masonry cement, and blended cement.