

# 2008 SEAUPG CONFERENCE-BIRMINGHAM, ALABAMA PRESENTED BY DR. RANDY WEST, DIRECTOR-NCAT

## National HMA Technician Certification Program

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## NCAT's Mission

To provide national leadership for the asphalt paving industry through research, education, and as a clearinghouse for technical information.

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**National Binder Technician Certification**

The asphalt binder is so pressed to announce the new National Binder Technician Certification (NBTC) program. It has been a long time in the making, but the time has come. The NBTC is a program that has been developed by the asphalt binder industry and is designed to provide a comprehensive, standardized, best practice product for P2 asphalt binder testing.

Thanks to the NBTC program, **100% asphalt binder testing**, was introduced by us in February 2007. Drawing on the practical experience of NBTC, Paving, Asphalt Institute and leading industry experts, NBTC is the comprehensive link between standards and the technician - providing essential information needed to perform P2 asphalt binder testing, including asphalt binders and temperature measurements.

The objectives of the NBTC are to:

- Provide a concise, standard interpretation of best practices
- Provide a consistent education, best practice
- Enhance industry knowledge
- Help reduce variables, defects and disputes
- Tighten the precision and state-of-the-art in published standards
- Increase confidence in data for use in product development

To become a Certified Binder Technician, a candidate must have a work experience with the testing of asphalt binders for compliance with the P2 specification (ASTM D 1601). Candidates must have either an 11 months' experience in asphalt testing directly under an NBTC certified technician before attempting to achieve certification. NBTC Program attendance requires a complete registration form and approval.

**Cost of certification**  
NBTC courses and exams held at the asphalt Institute in Lexington, Kentucky, are \$1,000 per student. Capacity is 4 - 10 students. NBTC courses and exams held at other locations are a total fee of \$1,500 per student. Capacity is 1 - 10 students.

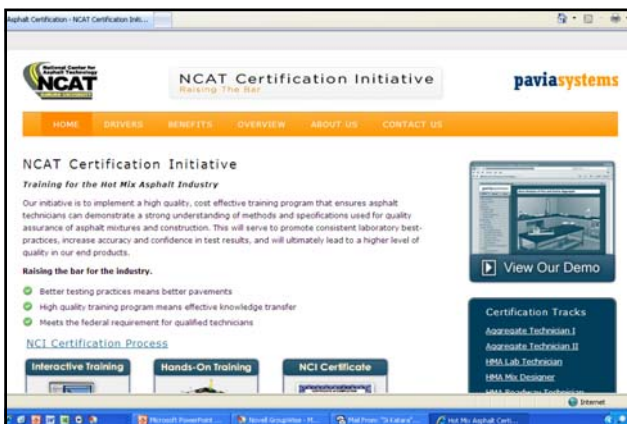
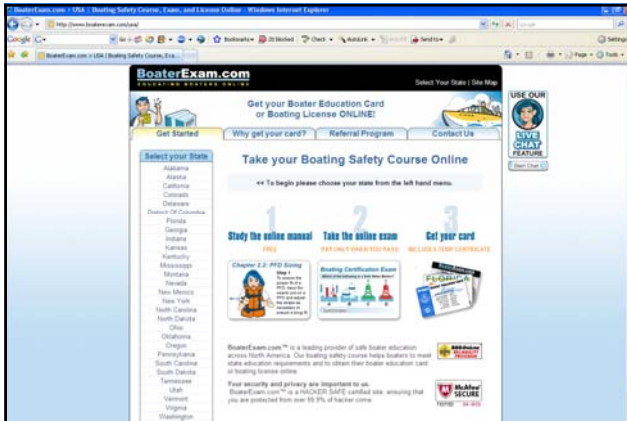
**125 YEARS OF CERTIFICATION**

ACI offers 27 certification programs designed to form a minimum qualification for personnel employed within the concrete construction industry. Certification examinations and optional training courses are conducted through an international network of over 100 local sponsoring groups. Since 1980, ACI has administered exams to over 350,000 individuals, with over 90,000 certifications currently maintained by ACI.

**AMERICANS WITH DISABILITIES ACT (ADA)**  
ACI Certification programs are ADA compliant. Individuals with disabilities requiring special accommodations must contact the ACI Certification Department for further information on how to proceed. All requests for special accommodations under ADA are handled on a case-by-case basis and must be made allowing enough time for evaluation and appropriate action by ACI.  
To contact the ACI Certification department, call 249-949-2790.

These national organizations participate (cooperate) with ACI in programs to improve the quality of concrete construction:  
American Concrete Institute Association  
American Concrete Association  
American Subcontractors Association  
American Society of Concrete Contractors

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## National HMA Technician Certification Program

**Objective:** to implement a high quality, cost effective and efficient program that ensures that asphalt technicians can demonstrate a good understanding of methods and specifications used for quality assurance of asphalt mixtures and construction.



## Key Features

- Web-based, self-guided training with on-line exams
- Core content based on AASHTO standards
- Content specific to local agencies handled through separate but linked on-line training and exam modules
- Local proficiency exams administered by nationally trained examiners
- Reduces travel and time away from the job for technicians



## NCAT Technician Certification Program

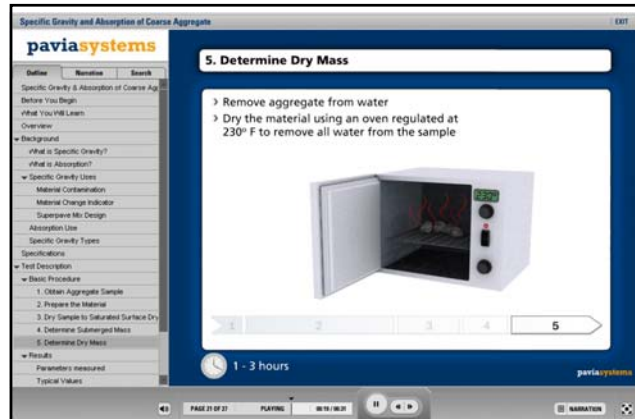
- Aggregate Technician
- HMA Lab Technician
- HMA Roadway Technician
- HMA Mix Designer



## Training and Exams for Certification

- Two elements are required for certifications:
  - On-line training course with exam
  - Hands-on demonstration of tests
- Optional live (or video) training will be offered with a written exam in place of on-line version
- Demonstration exam will be like ACI hands-on exam.
- Train the Examiners & Trainers – NCAT will train and qualify live trainers and proficiency examiners

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## NCAT Technician Certification Program

- Benefits of on-line training:
  - More consistent training
  - More convenient to participants
  - Better retention of information by participants
  - Lower cost to participants and agencies
  - Better quality assurance data → better quality pavements

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## Agency Seals for Agency Specific Requirements

- Agency specifications, method adaptations, pay factors, forms, etc.
- Entirely computer-based, self-study content with on-line exam
- Content is controlled and updated by agency or designee
- Models provided by NCAT/Pavia
- Participants who pass agency specific content gets a "Seal" to go on base certification

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## Demonstration Exams

- Demonstration Exams can be administered wherever Certified Examiners can proctor the hands-on exams
- Participants must first complete the self-study content courses and pass the on-line exam(s)
- Standard Demonstration Exam checklists will be established and used. The completed exam checklists will be faxed to NCAT for record management

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## Aggregate Technician

- Web-based, Self Study Course (with exam)
  - Construction math
  - Terminology
  - Sampling, washed and dry gradation, ...
- Demonstration/Proficiency (Hands-on exam)
  - Gradation, unit weight, coarse and fine aggregate specific gravity, FAA, ...
  - Standardized proficiency checklist
  - Score sheet faxed to NCAT
- Advanced Certificate
  - Source Property Tests: LA, Soundness

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## HMA Lab Technician

- Web-Based, Self Study Content
  - Sampling
  - Ignition method
  - Gyrotory compaction
  - Gmb
  - Gmm
  - Volumetric calculations
  - Equipment calibration
- Demonstration/Proficiency Exam
  - asphalt content, gradation, lab compaction, Gmb, Gmm
  - Volumetric properties

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## HMA Roadway Technician

- Self-study content
  - Tack coat application rates
  - Spread rates/yield
  - Rolling patterns
  - Density testing with nuclear and non-nuclear gauges
  - Segregation
  - HMA sampling and coring
  - Smoothness
  - Longitudinal joints
- Demonstration/Proficiency Exam
  - Density testing

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## Demonstration Examiners

- Pass the self-study content courses
- Attend NCAT Examiner Training and Pass Demonstration Exams – Receive Examiner Certification



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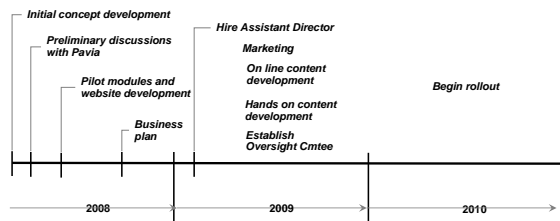
## Who are the Players?

- Program Oversight Committee
  - contractors
  - agencies
  - current certification organizations
- Pavia Systems
- NCAT
- Local Examiners and Labs
- Modules on agency specific materials run by state or designee

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## NCAT Certification Program Timeline



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