M-TRAC ANNUAL MEETING
September 10-12, 2006
Kansas City, MO
Agenda

Sunday, September 10
6:00 – 7:00  Reception – Westport Room, 2nd floor

Monday, September 11 – Millcreek Room, 3rd floor
7:30 – 8:00  Registration
7:30 – 8:00  Continental Breakfast
8:00 – 8:15  Welcome and Introductions
8:15 – 9:30  State Updates
9:30 – 9:45  Break
10:15 – 10:45  ACI and NICET Updates
10:45 – 12:00  State Updates
12:00 – 1:00  Lunch
1:00 – 1:30  M-TRAC Update - Chris
1:30 – 2:30  State’s Problem, Concerns, and Discussions – This is an opportunity for states to discuss areas of concern such as reciprocity, state trainers, warranty work, etc.
2:30 – 2:45  Break
2:45 – 4:00  Continue State’s Problem, Concerns, and Discussions
(If not all this time is need State Updates can fill in)

Tuesday, September 12 – Millcreek Room, 3rd floor
7:00 – 8:00  Breakfast Buffet
8:00 – 8:45  TCCC Update – Douglas Townes
8:45 – 9:30  Breeze WBT and WCT (The Sandbox Project) – Debbie Gwaltney
9:30 – 9:45  Break
9:45 – 10:15  E-Learning and Certification Training Programs – State Discussion
10:15 – 12:00  State Updates
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A reception kicked off the 2006 M-TRAC meeting on Sunday, September 10th. This gave everyone an opportunity to say hello. Information sharing started off during the reception and lasted throughout the meeting.

The meeting began on Monday with a special thank you to Kansas DOT, Missouri DOT, and Kansas State University for the work they did as meeting hosts. Next there were introductions of the 26 participants representing 9 state DOT’s or universities, organizations, and FHWA. The meeting began with state updates. If the state individual gave a Power Point presentation, those will be attached.

**Kansas DOT** – Rick Kreider – Kansas DOT dropped the certification for Superpave Design, it is for informational purposes only. They went to Kansas Test Methods in Aggregate Field instead of ACI. They added an advanced Construction Management Course.

**Missouri DOT** – Jeff Huffman - Power Point

**New Mexico DOT** – Brian Legan – Power Point

**Update on FHWA, Code of Federal Regulations, and Construction Inspection Certification.** – Douglas Townes, FHWA Atlanta -Douglas spoke on changes to the Code of Federal Regulations (CFR) 637 to require Construction Inspection. Douglas stated it is doubtful if the CFR will be changed since they really don't want to re-open the CFR. The FHWA will look at other ways to enforce the need for construction inspectors to be certified.

Douglas also spoke about certification cards and the need to have certification databases. Certification cards are easily counterfeited, so the only way to be certain an individual has a certification is through a database. With more private sector employees coming into our classrooms and many State DOT position descriptions requiring certifications, the temptation to "cheat" and/or forge certification documents is increasing. Douglas recommended that training managers put yourselves in the mind of a dishonest person then try to visualize how your State's training/certification program might be compromised.

**NICET** – Ahmed Farouki – Power Point

**ACI** – John Nehasil – "ACI Managing Director of Certification John Nehasil reported on new developments regarding ACI Certification. The ACI Laboratory Testing Technician Certification Committee is in the process of retooling the Laboratory Testing Technician programs to: more logically allocate the testing Standards into programs representing
base materials (soils) testing, aggregate testing, and concrete testing; include the AASHTO test procedures alongside the ASTM procedures; eliminate the overlap in Standards that currently exists; reduce the number of Standards covered by each program; and facilitate the conversion of select programs from closed- to open-book exam format. This transition is expected to occur beginning January 1, 2008.

ACI is also poised to launch an Associate Concrete Transportation Inspector Certification program by January 1, 2007. This program is designed to meet the Level 2 requirements expressed on the Transportation Curriculum Coordination Council matrix for Inspection. While there are no work experience requirements for this level, ACI Field Testing Technician – Grade I is a prerequisite; also required for certification is the successful completion of a written inspection exam and a plan reading exam. The resources for the program are a subset of the full ACI Concrete Transportation Construction Inspector program and is tailored to meet the needs of DOT personnel who are not at the Project Engineer level felt to be targeted level of the full program.

ACI is also continuing its process improvement initiatives by conducting a Pilot Quality Review of its Sponsoring Group’s examination sessions, alongside its continuing statistical analysis of exam materials performance.

eTEC - Susan Schemmel – Power Point

M-TRAC Update – Chris Anderson – Chris discussed materials developed by M-TRAC and that these materials have been updated. She asked for reviewers of these updated manuals before they are put on the website. These are being reviewed and will be placed on the website, hopefully in October. The PCC manual has been completed and is also being reviewed. Chris did not put capping cores in the manual, but the group felt this needed to be included so Rick Kreider agreed to complete this section for the manual. Thanks to George Perdue, Iowa DOT; John Hinrichsen, Iowa DOT; Mike Fritz, Missouri DOT; Jeff Huffman, Missouri DOT; Becky McDaniel, Superpave Center, Chris Anderson, Iowa DOT; and all others that have assisted with the updating of these manuals. Since the updates are being completed by the states it was decided to remove developed by FHWA from the front page. The FHWA logo will remain in the M-TRAC logo. The group also decided to remove development name lists, biographies, etc. from the documents.

From discussions at the 2005 M-TRAC meeting a spreadsheet has been developed to show state’s programs, what test methods are included in the programs, etc. Any state that would like to have their materials included in this spreadsheet can contact Chris and she will send a blank for them to complete. A copy of the state information received to date is included in these minutes.

Chris discussed the relationship with the National Highway Institute (NHI) on obtaining materials. There is an agreement with NHI though the Transportation Curriculum Coordination Council (TCCC) that they will provide states with a copy of any of the NHI materials. Marty Ross is now the representative from NHI to the TCCC and at the last
TCCC meeting expressed concern that they would need to be responding to a number of individuals from the same state. She would like the states to have one person to request materials.

Chris Anderson, Iowa DOT and Cathy Betts, Minnesota DOT continue to represent M-TRAC at the TCCC meetings. Contact Chris or Cathy if you have any topics of discussion you would like to be discussed at the TCCC meetings or if you have any curriculum development requests. M-TRAC also has Ray Spellman, UW and Rick Krieder, Kansas DOT on TCCC committees. Thanks to all states for their responses when requests for participation or information is sent out from the TCCC representatives.

A special thank to Lynn Warble of the North Central Superpave Center for her support of the M-TRAC website.

The group decided to continue having the M-TRAC meetings annually. The following are the meeting locations for the next three years:
   2007 – Wisconsin
   2008 – South Dakota
   2009 – New Mexico

**QUESTION/ANSWER**

The next section covered question and discussion time by the attendees.

**Do supplemental examiners receive training? Do they get evaluated by the students?**

KDOT – Will have proctor training this fall. They warn their examiners not to give hints or to be “buddies”.
NMDOT – Has a database of proctors and their pass/fail rates.
MoDOT – Sends people from the lab to sit in on the classes to make sure content and testing methods are being followed.
Mn DOT – Uses their own people to observe the hands-on portion.
IDOT – All instructors are required to be certified in the areas they are instructing. Iowa uses one evaluation sheet for all instructors.

**Hands-on Testing:**

MoDOT and KDOT have practice sessions before the hands-on testing.
IDOT and MnDOT do not have practice.
MnDOT gives two tries, if they don’t pass they have to retake the class.
IDOT instructors help their students during the hands-on portion if needed.
Do states identify steps on the proficiency tests that the student must do to pass?

NMDOT allows student to make verbal correction if they do something wrong and realize it.
ACI has guidelines

What is the future of certification programs with warranted roads?

FHWA says it depends on the length of the warranty.
KDOT did warranty on pavement marking – stopped after companies were going to go bankrupt...went away.
MnDOT did short warranty, but because of this short period didn’t get any testers out on the project.

How is your program controlled? Governing Authority?

IDOT – Specification
WisDOT – Specification
KDOT – Specification
MoDOT – State Regulation

Who has year round training?

Arkansas – as needed
MoDOT – November – May, but have waiting list and will schedule other times
IDOT – similar to MoDOT
KDOT and MoDOT charge a full class fee (12 Kansas) for classes outside normal training schedule.

Any testing standards?

KDOT – 70% pass
FHWA, Townes – Pass/Fail rate 85% is acceptable. Higher than 15% failure rate look at instructor, evaluations, etc. Florida 70% pass.
IDOT – Multiple choice, T/F, no partial credit questions, open book, 80%
FHWA suggestion: Have an appeal process for a “bad” question.

Who requires math?

KDOT has a test that everyone is required to take. Prerequisite for most classes.
MoDOT and IDOT offer course but don’t require it.
MnDOT lists as prerequisite but doesn’t enforce.
Any exams offered in Spanish?

ACI does – Mexican dialect.
IDOT – AGC hired interpreters with prior notice.
KDOT – talked about Spanish flipcharts from Pavement Center at ISU.

Other items:

ACI required doctor’s note about disability and suggestion of accommodation. They must request prior to class.

KSU discussed giving out grades, other than to the student. FERPA states that you cannot give grades out, other than to the student. Students have to give a signed release to the give to the employer. KSU follows this policy as administrators.

MoDOT will release the score to the employer. MoDOT does the administration although the college teaches the classes.

IDOT works only with the certified technician since it is their certification not the companies. They list who has certifications on database, but no personal information.

MnDOT’s certified database is not public record. Only posted on their intranet.

Florida lists by number on their website.

MnDOT and KDOT have watermarks on their ID cards.

Fraud Problems Presentation – Dennis Dvorak, FHWA - Chicago – Power Point

TUESDAY, SEPTEMBER 12

TCCC Update – Douglas Townes, FHWA – Power Point

Sandbox Project (Adobe Breeze web-based training and web-conferencing) – Debbie Gwaltney, NHI – Power Point

More state updates:

Arkansas – Francis Griffith – University of Arkansas - Power Point

North Dakota – Julie Rodriguez – North Dakota State University – Julie works with the Transportation Learning Network. Their website is www.translearning.org. This group consists of 4 DOTs and 5 universities. E-learning is very important because of travel restrictions, time constraints, especially when working with states such as Montana that are vast but not densely populated. They also are doing video conferencing learning -
graduate programs, peer exchange programs, interstate staff meetings, leadership, and management training. They will be able to achieve video conferences, as well as, stream to the web. They are experimenting with pod casting.

**Wisconsin** – Ray Spellman – University of Wisconsin Platteville – Power Point

**Minnesota DOT** – Cathy Betts – Our classes are held between November and May, Training schedule is posted online October 1 and registrations begin and all links to our partnerships for training are operational. We have 13 areas of Certification in a 2 Level format. Level 1 is testers and Level 2 is inspectors. Our program is currently 82% non-DOT and 18 % DOT, of which, 37% Contractor, 23% Consultant, 11% County, 8% City and 3% other. We have 9 recertification areas. Our certifications are for a five year term and then you must retake or recertify. Certification requirements apply to warranty and design build jobs as well. Registered Engineers must be certified if they are doing testing, if only inspection their registration covers them as Level 2. This past training season, 2005-2006 we held 77 Certification classes and 36 Recertification classes. We have 9833 people in our database, 5640 have at least one certification. This year we sent out 5555 cards which included new as well as already certified persons. We issue new cards every May. Some are in active, but still remain in the database.

This year through our partnerships we offered Strength Technician certification and Concrete Finisher certification, Bridge Safety, Plan Reading and Contract 101. Training and utilizing Native American persons on projects in and around reservation lands was a big project this year. Our Signal & Lighting and Erosion Control training is directed by special provision. We have given various field personnel read only access to our database for ease in verifying certification status. We do have a provisional certification and do allow approved test out attempts, however, we do not have reciprocity.

**Iowa DOT** – Chris Anderson – Iowa DOT continues to work with Des Moines Area Community College (DMACC). The DOT handles all the registrations, certifications, material development. DMACC hires instructors, furnishes materials, locations, and equipment. Good relationship. Iowa is currently rearranging their QC/QA program, which is changing their certification program. Iowa’s program has developed a Testing Protocol in an effort to make their testing procedures more uniform. Struggle with instructors to follow procedure. Iowa developed a Training Academy for the DOT employees with matrices for each classification describing job duties and required and available training. There is also maintenance, construction/materials, and safety training weeks of training for new employees included in the Academy. The Iowa Technical Training and Certification Program participated in the first sandbox project and the DOT has purchased Breeze for web-based and web-conference type training.

**Wrap-Up**

A discussion on decertifying technicians was held.

The 2007 M-TRAC meeting will be held in Milwaukee, Wisconsin.
Technician Certification Program (TCP)

Overview
- Any acceptance testing for MoDOT projects is to be completed by a Certified Technician.
- Certification consists:
  - Classroom Instruction
  - Written Examination
  - Performance Demonstration

Certifications are valid for 3 years. Reciprocity honors other states certifications, restricted to test methods in common.
- May take supplemental test to receive unrestricted certification.

Written examinations are open book. Students in first time courses allowed 1 re-test on written exam and performance demonstration.
- Re-certification consists of student self-study, short review of any changes, written exam and performance demonstration.

Certification Courses
- Level 1 Technician
- Plasticity Index - New
- Level 1 Bituminous
- Level 2 Concrete
- Level 2 Soils
- Level 2 Bituminous
- HMA Aggregate - New
- Profilograph
- Aggregate Specific Gravity
- Low Shump
- TSR Tensile Strength Retained
- T85 Absorption - New

Training Material
- Course books consist of PowerPoint material note pages.
- Available MTRAC training material.
- Materials and/or Construction Manual excerpts.
- Publishable Test Methods.
Course Locations
- Linn State Technical College – Linn MO
  - Level 1 Technician
  - Level 1 Bituminous
  - Level 2 Soils
  - Level 2 Concrete
  - Plasticity Index
  - Profilograph
- University of Missouri, Rolla (UMR)
  - Level 2 Bituminous – Superpave
  - HMA Aggregate
  - TSR
- Central Laboratory – Jefferson City MO
  All Specialty Methods

Certification Cards
- Temporary cards issued upon successful completion of each class.
- Permanent cards issued July 1, each year, to include all of a technician’s current certifications.

De-Certification
- Any documented cases of fraud, abuse, willful negligence will be investigated and appropriate action taken to suspend or remove individual from the certification program.
- Demonstrated incompetence may require repeat of certification course.

Changes!!
- Grade test upon completion.
  - Review missed questions with student.
- Removed photo from card.
- Removed certification number from card.
  - Certification number is generally SSN
- Centralized training
  - Both 1st and 2nd Levels of certifications have been removed from MoDOT Districts and are now at one location.
- Recertification process shortened.
- Future Consideration - 5 year certification period.

Information
- Calendar, Locations, Certification Levels, Specific Tests, Policy located on the web.
  - www.modot.mo.gov
    » Contractor Resources
    » Technician Certification Program
    » Tech Cert

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New Mexico Technician Training and Certification Program (TTCP)

M-TRAC Presentation
September 11-12, 2006
Kansas City, MO

How Does The Cooperative Effort Work?

• Two Full-Time Trainers
• Testing Equipment
• Lease ACNM Facility
• Provide Facility
• Maintain Database
• Provide Billing/Collection
• Input From Industry
• Hire Proctors

New Mexico TTCP Training/Certification Facility

Training Lab #1:
• Asphalt/Superpave
• Inertial Profiler
  - Eight Work Stations

Training Lab #2:
• Aggregate
• Soil
• Concrete
• Nuclear Densometer
  - 16 Work Stations

New Mexico TTCP - Training and Certification Modules

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Schedule of TTCP Classes

• Classes Provided Year-round
• Schedule is Six Months Out
• Classes Offered Per Demand
• Schedule Updated Every Two Weeks to Show Availability
• All Classes Offered at the TTCP Facility in Albuquerque
Who Utilizes the New Mexico TTCP?

- Contractors: 35%
- Cities: 30%
- Counties: 25%
- BIA: 10%

Private Labs and Consultants

Department
How Does The Cooperative Effort Work?

- Two Full-Time Trainers
- Testing Equipment
- Lease ACNM Facility
- Provide Facility
- Maintain Database
- Provide Billing/Collection
- Input From Industry
- Hire Proctors

New Mexico TTCP Proctors

- Carlton Pearl  Retired DOT Lab Supervisor  47
- Neddie Otero  Retired City of Albuquerque Lab  47
- Lloyd Maness  Retired DOT Materials  38
- Dave Starkovich  Retired DOT Asphalt Lab Super.  35
- Danny Romero  Retired DOT Lab Supervisor  26
- Chuck Hatch  Retired FHWA / DOT Materials  35
- Art Schwack  Retired DOT Materials & Safety  26
- Joel Archuleta  TTCP Trainer  14
- Brian Legan  TTCP Trainer/Administrator  28

296 years of experience

What’s in the near future for New Mexico TTCP?

Construction Inspector Training Program

Proposed Training Modules

- Project Documentation
- Hot Mix Inspection
- Basic Concrete Inspection
- Ethics
- Bridge Deck Inspection
- Construction Surveying
- Structure Inspection
- Conflict Resolution
- Utilities

What needs to happen?

- The Associated Contractors of New Mexico will begin construction on a third lecture/wet lab training facility – approximately 2000 square feet of additional space at TTCP/ACNM.
- The New Mexico DOT will provide funding for a third full-time trainer
- Development of materials (develop from scratch, utilize TCCC materials, nurture in-house Subject Matter Experts (SME).

Who benefits?

Everyone benefits!

- New Mexico D.O.T
- Contractor’s personnel
- Traveling public
- Taxpayer
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QUESTIONS?
Visit our Web Site at aconm.org
Or at the Intrans web page.
The National Institute For Certification In Engineering Technologies

The NICET Update
Ahmed Farouki
Senior Manager, Program Administration
M-TRAC Annual Meeting
September 11, 2006

45 years of independent service...
- Over 32 national certification programs.
- Over 118,000 technicians certified.
- A database of over 38,000 active certificants.
- An expanding network of over 300 (regular & special) test centers.

2006 .... we continue to focus on
- Improving customer service.
- Building stakeholder relationships.
- Updating existing programs.
- Developing new programs.

Customer Service .... improved access
- NICET Customer Service Center:
  Call: 1 888 IS NICET Fax: (703) 682 2756
  (1 888 476 4238)
  Two Full Time Employees Answering Calls
  Email:
  Certification questions … cert@nicet.org
  Testing questions … test@nicet.org
  Technical questions … tech@nicet.org

Customer Service .... in the works
Online Access through the NICET website
- Candidates will be able to:
  - Complete & submit test applications.
  - Have protected access to:
    - Biographic data
    - Test history
    - Certification history

Customer Service .... in the works
Online Access through the NICET website
- Employers & stakeholders will be able to:
  - Look-up candidate certification status.
  - Order directories of certificants.
  - Access data of active certifications, nationally and/or by state.
  - Access listings of suspended & revoked certifications.
Program Update .... underway

- Highway Construction
- Transportation System Maintenance & Preservation (available by 1/07)
- Stormwater & Wastewater Systems Construction Inspection (available by 7/06)
- Highway/Roadway Design
- Construction Materials Testing (Asphalt, Concrete & Soils)

Highway Construction Inspection

Steering Committee
- J. Sorenson / FHWA
- D. Townes / FHWA
- J. Rapot / FAA
- J. Taylor / NIH
- D. Liston / VDOT
- T. Ferguson / PennDOT
- S. Bartos / Nebraska DOT
- J. Wathen / KY Trans Cabinet
- J. Twedt / MS DOT
- J. Gower / Oregon DOT
- E. Powell / NC DOT
- M. Phillips / PA Turnpike
- N. Syed / NY-NJ Port Auth.
- D. Buchak / Urban Engineers
- R. Hale / PBSI
- R. Samson / Vollmer & Assoc.
- K. Fryer / Wilbur Smith
- J. Epps / Granite Construct.
- P. Kott / APWA
- T. Giancola / NACE
- A. Shaw / Hampton Roads
- M. Stark / CMAA
- B. Deery / AGC

Transportation & Public Works Construction Inspection Program

Four Tracks ....

- Highway Construction Inspection
- Airfield Construction Inspection
- Transit Systems Construction Inspection
- Public Works Construction Inspection

Testing & Certification Levels ....

- Level I .... 6 months experience / generalist.
- Level II .... 2 years experience / generalist.
- Level III .... 5 years experience / specialist
- Level IV .... 10 years experience / specialist
- Level V (optional) .... 15 years experience / specialist
Transportation System Maintenance & Preservation

Joint effort with Penn DOT, MS DOT, AASHTO Sub Committee On Maintenance & FHWA Transportation Curriculum Coordination Council (TCCC) … available by 1/07

- General program update plus:
  - Adverse Weather Related Activities
  - Major Rehabilitation & Reconstruction
  - Construction Inspection & Materials Testing
  - Erosion & Sediment Control

Stormwater & Wastewater Construction Inspection

A National Committee has finalized a New four level program. It is similar to the Water & Sewer Lines Construction Inspection Program except:

- Without water line inspection elements
- With the inspection elements of:
  - Stormwater systems.
  - Erosion & Sediment Control
  - Trenchless Technology
  - Confined Space & Trench Excavation

Highway Design

A National Committee Is Finalizing Delivery Of Two Updated Tracks:

- A Highway Design Track (includes both roadway, structural & bridge design elements)
- A Roadway Design Track (includes only roadway elements)

Both tracks include added Erosion & Sediment Control, Traffic & Survey subject matter.

Update Of The Construction Materials Testing Program

Program Development Groups

- National Steering Committee
- Soils & Aggregates Development Committee
- Concrete Development Committee
- Asphalt Development Committee
- Reciprocity / Hands-On Performance Exam Committee

Steering Committee …

- Set general development framework:
  - Three main specialties with lab & field tracks for each.
  - Four levels of certification for each track.
  - Inclusion of Hands-on testing and reciprocity with existing programs.
Asphalt Development Committee

- Randy Caley / FHWA - Federal Lands
- John D’Angelo / FHWA - OPT
- John Epps / Granite Construction - NAPA
- Sean Parker / Oregon DOT - WAQTC
- Greg Moore / MD DOT - MARTCP
- Chuck Hughes / Consultant
- Mansour Solaimanian / Penn State -NECEPT
- John Hinrichsen / Iowa DOT - MTRAC
- Jeffrey Rapol / FAA
- David Anderson / Consultant
- Mark Buncher / The Asphalt Institute
- Randy West / NCAT
- Mohammad Khan / PSI
- Todd Lynn / APAC
- Todd Trueblood / CTI Labs
- Glenn Watt / Western Rock - Old Castles
- Joe Kimhi / AGC of New Mexico
- David Peshkin / Applied Pavement Technologies
- Tim Weltin / TTL Associates

Two Testing & Certification Tracks Levels I, II, III & IV:

- Testing & Inspection of HMA Placement Operations
- Hot Mix Asphalt Laboratory Testing

The New CMT Tracks .... summary

- Aggregate Laboratory & Field Testing.
- Soils Laboratory Testing.
- Soils Field Testing & Inspection.
- Concrete Laboratory Testing.
- Concrete Field Testing & Inspection.
- Testing & Inspection of HMA Placement Operations
- Hot Mix Asphalt Laboratory Testing

The Construction Materials Testing Program

“The Hands-On Performance Exams & The Reciprocity Standards & Guidelines”

Aggregates, Soils, Concrete & Asphalt next ....

- Synchronization of tracks & review by a group of subject matter experts ... underway.
- Finalize Hands-on Performance Testing & Reciprocity Implementation Procedures & Guidelines ... underway.
- Final national validation ... by 1/07
- Question development ... start by 2/07
- Field Testing & Implementation ... Soils by 7/07
- Test Form:
  - Paper & pencil
  - Computer based

Highlights .... General Requirements

- Hands-on Performance Exam Content:
  - Aggregates Lab & Field Testing Levels I & II.
  - Soils Field Testing & Inspection Levels I & II.
  - Soils Lab Testing Levels I & II.
  - Concrete Field Testing & Inspection Levels I.
  - Concrete Lab Testing Levels I & II.
  - HMA Placement Operations Testing & Inspection Levels I, II & III.
  - HMA Lab Testing Levels I & II.
Retesting Requirements & Guidelines.
- Appeals & Challenges.
- Due Process.
- Re-certification Criteria.
- Exam Staff Application Forms & Contracts.

Appeals & Challenges.
- Due Process.

Re-certification Criteria.
- Exam Staff Application Forms & Contracts.

Exam Staff Application Forms & Contracts.
- Exam Facility.
- Exam Staff (Qualifications & Responsibilities).
- Testing Guidelines.
- Test Scoring & Reporting.

Exam Administration Requirements:
- Exam Facility.
- Exam Staff (Qualifications & Responsibilities).
- Testing Guidelines.
- Test Scoring & Reporting.

Candidates qualified/certified by a recognized organization and/or a NICET partner in one or more of the listed AASHTO and/or ASTM test methods will be granted a waiver from those applicable sections of the NICET performance exam.

Candidates qualified/certified (written plus performance) by a recognized organization and/or a NICET partner in all the AASHTO and/or ASTM test methods, as listed for a NICET Level I subfield, will be granted the equivalent NICET certification upon meeting the 6 months work experience requirement.

Candidates qualified/certified (written plus performance) in all the AASHTO and/or ASTM test methods by a recognized organization and/or a NICET partner, as listed for a NICET level II subfield, will be granted the equivalent NICET certification upon satisfaction of the two year work experience requirements for the subject subfield.

For the waiver to be granted, proof of valid & current certification must be submitted by the candidates upon application for certification.

The NICET Advisory Committee:
- All waivers & reciprocity issues & projects will be reviewed by a four member Advisory Committee for each subfield. Recommendations for acceptance or denial of waivers & reciprocity will be made to NICET for final consideration.
- Three members of the committee will be assigned by members of the CMT Development Committee to represent relevant industry sectors. A fourth member will be assigned by NICET as a coordinator. Committee members will serve for three year terms.

At NICET we have been working hard on ....
- Improving our customers service levels.
- Updating our programs to satisfy current industry standards.
- Developing new programs.
- Partnering with industry to provide credible national training resources.
Thank You

www.nicet.org
888 476 4388 x 103 or 120
atarouki@nicet.org
Update on eTEC Activities

eTEC offers the latest in comprehensive training tools for construction material testing technicians.

eTEC Training Products are
• Computer based, interactive, self-paced, and easy to use
• Based on ASTM, AASHTO, or State DOT standards
• Updated annually
eTEC Training Modules include a

- Slide presentation review of the standard with sample computations and a practice problem
- Video demonstration of the test procedure and equipment calibration
- Step-by-step outline of the test procedure

Delivery Options

- Single user CD
- Instructor DVD
- Online/Network
  - password protection
  - user statistics
  - local administrator access
Current Products

• Concrete Field Testing
  ✓ Spanish Instructor DVD in 2007

• Concrete Strength Testing
  ✓ Compression and flexure test
  ✓ Bonded and unbonded end caps
  ✓ The strength of hardened concrete and evaluation of test results

Nearing Completion

• Soil Testing - Laboratory Compaction
  ✓ Fundamentals of the moisture-density relationship
  ✓ Standard and modified Proctor
  ✓ Moisture content
  ✓ Correcting the moisture and density values

Nearing Completion

• Aggregate Testing - Series 1
  ✓ Collecting a field sample
  ✓ Reducing field samples to test specimen size
  ✓ Moisture content
  ✓ Sieve analysis
  ✓ Material finer than No. 200
  ✓ Density and voids
Pending Products

• Self Consolidating Concrete
• Aggregate Testing - Series 2
  ✓ Specific gravity, flat and elongated, fractured faces, organic impurities, lightweight pieces, clay lumps
• Field Density of Soil
  ✓ Nuclear gauge, balloon, sand cone, tube

Modular Format

• Allows us to bundle any combination of standards
• What are your preferences?

NC DOT Receives Award

• Materials and Tests Unit received a cost-savings award as a result of incorporating eTEC training products in their Concrete Field Testing Technician certification program.
eTEC Now an ACI LSG

- Offering the concrete field and strength testing exams
- Hired by the SD DOT to train all state personnel
- www.sdconcrete.org

Demo of Online Delivery

- Full versions of concrete field and strength testing online
- Contact eTEC for a username and password
  - sschemmel@go2etec.com
  - (605) 582-6864

Questions?
Quality Assurance
Where do we go from here...
Dennis Dvorak
FHWA Resource Center
Pavement and Materials TST

Why Quality Assurance important?

Common Types of OIG Fraud Cases
- Bid rigging & collusion
- Materials overcharging
- Time overcharging
- Product substitution
- Minority-owned business fraud
- Quality-control testing fraud
- Kickbacks
- Bribery

Materials Overcharging

Definition
Contractor misrepresents how much construction material was used on the job and then charges for more material than was used to increase job profit.

The Paper Trail

Asphalt Production Report

Asphalt Shipped

Private Jobs

Plant production report shows 1,380 tons more asphalt shipped than produced on this day

Asphalt Produced

Plant production report shows 1,380 tons more asphalt shipped than produced on this day
Contractor Fraud

Sample Indicators

- Contractor regularly creates opportunities to load job materials into equipment away from job inspectors
- Truck drivers state that handling characteristics indicate their trucks are under weight
- Use of reproduced copies, rather than originals, when providing quantity documentation
- Irregularities in color or content of weight slips or other contractor documents used to calculate pay quantities

Quality-Control Testing Fraud

Definition
Contractor misrepresents QC test results to falsely earn contract incentives or avoid contract disincentives, or to avoid production shutdown or required removal of deficient material in order to limit costs or increase profits.

Example
After distracting the state inspector, an asphalt-paving crew foreman discarded road cores from random QC locations designated by the inspector and replaced them with "test cores" known to qualify for density-incentive payments under the contract.

Quality Assurance Topics

Materials Quality Assurance review
Quality Assurance Stewardship reviews
Training

Materials Quality Assurance Review

Focus is on Division Office stewardship and oversight

- Result of FHWA Risk Assessment Survey
- One of highest ranked potential risk areas
- Scope: FHWA Division Office review, approval and monitoring activities

What goals or objectives will be achieved?

Recommend improvements which allow Division Offices to evaluate, approve, and monitor State DOT quality assurance program with a high degree of confidence Identify successful practices that will add value to the program corporately/nationally
Title 23 Code of Federal Regulations
Part 637
(23 CFR 637)
June 29, 1995

FHWA Quality Assurance Stewardship Review

Background

- Approved QA program
- Independent Assurance Program
- Laboratory and personnel qualification
- Use of Contractor’s test results in the acceptance decision

33 States using Contractor Test Results in the Acceptance Decision

Positive Findings
- Independent Assurance Program
- Technician and Laboratory Qualifications
- Participation in, and use of NTPEP
- Sampling HMA behind the paver

Opportunities for Improvement
- Need to strengthen the validation procedures of Contractor’s results used for acceptance
  - no independent samples
  - no statistical comparison
  - number of samples for comparison
  - control of Contractor supplied data
  - security of samples

M-TRAC Annual Meeting September 11, 2006
Questions and Comments?

Dennis Dvorak
FHWA Resource Center
Pavement and Materials TST
Olympia Fields, IL

dennis.dvorak@fhwa.dot.gov
Phone: 708-283-3542
Center for Training Transportation Professionals

Frances Griffith
Arkansas Update

- All training performed in Fayetteville, AR
- 4 Instructors
- No tests graded during class!!
- AHTD promotions CTTP certifications
- ID card issued with CTTP assigned #

- Basic Aggregates
- Fresh Concrete Testing Technician
- Asphalt Testing Technician
- Soils Testing Technician

- Concrete Pavement Patching
- Roadway Construction Control

- Concrete Strength Testing

- National Pollutant Discharge Elimination System Training
- How to Inspect Bridges for Scour
- Traffic Signal Installation and Maintenance
- Design of Drilled Shafts
- Basic Design of Right-of-Way
• E-Learning Sandbox

• Questions?

Thanks!
The Transportation Curriculum Coordination Council

• What’s new?

TRAINING UNDER DEVELOPMENT

• Environmental Factors in Construction
• Inspection of Bridge Rehabilitation
• GIS Applications in Construction
• Quality Assurance in Construction
• GPS Training

Sandbox Project

• What it is
• What it does
• Who it benefits

Sandbox Project #1

5 Projects – 4 States
OPCD Guidance
A Success!!!!!!

Sandbox Project #2

• Currently taking applications
• Will be starting in August
• More information on website
• http://www.nhi.fhwa.dot.gov/tcc/sandbox.htm
• Debbie Gwaltney – 202-366-9379 or Debbie.Gwaltney@fhwa.dot.gov

What’s Next?

• Complete Sandbox #2
• Report at TCCC Meeting
USE OF TCCC
- Examine TCCC curriculum vs. available training to identify gaps.
- Utilize existing courses.
- Determine needed training for TCCC development.
- Contribution to Pooled Fund is desired but not mandatory to use training material.

Curriculum Matrices
Competency Driven Training

Matrix Benefits
- Identifies Core Skill Competencies
- Provides basis for establishing curriculum tracks
- Can be tailored to fit the needs of each agency.

Five Technical Categories
1. Construction
2. Employee Development
3. Maintenance
4. Materials
5. Safety

Two Types of Matrices
1. Competency Matrix
2. Course Matrix

Matrix Benefits
- Identifies Core Skill Competencies
- Provides basis for establishing curriculum tracks
- Can be tailored to fit the needs of each agency.
**Training courses designed to address Skill Level Competencies**

1. **Entry** – new employee with little to no experience in subject area / performs under direct supervision
2. **Intermediate** – Understands and demonstrates certain skills / performs under general supervision
3. **Advanced** – Understands and demonstrates variety of skills / performs with little or no supervision
4. **Project Management / Administrator / Superintendent**

**Current Needs**
- Database of all known courses
- Compare competencies to courses
- Match to competencies
- Identify training needs
- Use by committees
- Additional Fields

**TCCC Training Data Fields**
- **Current**
  - Title
  - Area / Tech Category
  - Description
  - Objective
  - Audience
- **Needed for Evaluation**
  - Competencies Level
  - Tests/Exams
  - Course Exercises
  - Visual Aides
- **Instructors Manual**
- **Participant Manual**

**Training Data Coordination**
- **National Interest**:
  - TCCC, NTTD, TTC, LTAP
  - AASHTO, ITE, TRB
  - USDOT: FHWA, NTL, Volpe, PCB Programs
    - Roadway Safety Resource Database
- **TCCC**
  - Supports coordination efforts
  - Improve existing database

**TCCC Database Needs**
- Expand List of Titles (Matrix + Partners’)
- Complete data on training courses
  - Objectives, level, audience, tests, manuals...
- Review and link to competencies by level
- Maintain searchable online training database
  - More than 50 subject areas, 100s of topics

**TCCC Resource Database**
For more information about the Transportation Curriculum Coordination Council, visit:

www.nhi.fhwa.dot.gov/tccc

Or contact:
Christopher Newman
TCCC Program Manager
(202) 366-2023
christopher.newman@fhwa.dot.gov

Thank you

Questions?
The KAT e-Team

Susan McD Osborn
Jennifer Pimentel
Shelby Sours

We look forward to sharing the tools in our sandbox with you!

What’s an eLearning Sandbox?

Breeze Products and Services

- Breeze Meeting
  - Synchronous Web conferences
- Breeze Presenter
  - Asynchronous Web based
- Breeze Training
  - External learner management

Why Should We Participate?

“Mommy, I’m building a road.”

How Do We Play Together Nicely?
eLearning Sandbox Alumni

Who Gets to Play?

How Long Do We Get to Play?

What’s the Overarching Message?

e-Learning Meets a Variety of Needs

e-Learning – it’s not just about saving money!

You can be creative! You can be imaginative!

Simple Projects

Complex Projects
What’s in It for Me?
The Transportation Administrative Manual (TAM)

<table>
<thead>
<tr>
<th>Historical Comparison Certification/Recertification</th>
<th>2004</th>
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<th>2006</th>
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<td>456</td>
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<td><strong>Total</strong></td>
<td>6335</td>
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</table>
PROHIBITED ACTIVITIES

20. Soliciting or accepting any unauthorized compensation, reward, or gift from outside sources for any matter related to the employee's job as an employee of the state

OUTSIDE ACTIVITIES AND APPEARANCE

3. Engaging in outside employment without prior approval of the department, when so required. (Prior departmental approval must be obtained by employees assigned to classifications performing work of a confidential or critical nature.)

CONFLICTS OF INTEREST

Employes may not use their positions to engage in activities which result in personal gain...

PROHIBITED ACTIVITIES

4. You may not accept fees or honoraria for talks, demonstrations, or appearances. 
NOTE: If presentations are given or consulting work done while you are on... vacation, a conflict of interest is less likely to occur. No conflict of interest exists if the presentation does not relate to your job.

RESOLUTION OF CONFLICT OF INTEREST ISSUE

"A final decision regarding the WisDOT Employee/HTCP Instructor "conflict of interest" issue will be made near this calendar year end (2006).

RESOLUTION OF CONFLICT OF INTEREST ISSUE

It is not a conflict of interest for a WisDOT Employee/HTCP Instructor to teach classes while on paid vacation.
RESOLUTION OF CONFLICT OF INTEREST ISSUE

It is the WisDOT Employee's responsibility to get his/her supervisors approval prior to teaching HTCP classes while on the WisDOT payroll or when on paid vacation.

M-TRAC MEETING KC

FHWA NHI Training in Denver
August 21-24, 2006
Instructor Development Course
August or September?

(Excluding the labor day holiday and the following weekend, Sept. 2-3-4 and Sept. 8-9)

Milwaukee Art Museum

Or........

There is ALWAYS Shopping at Mayfair Mall.

M-TRAC MEETING
Milwaukee
2007

- Risk Management
- Registrations
- At the Airport
- Chris’s help
- Nicky and I are taking notes this week

M-TRAC MEETING KC

I.D. cards

Software
In Closing...

- Warranties
- How will they affect certification?
- Delivering training
- Will Instructor led-Classroom remain the standard?

Questions?

Thank You!
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<thead>
<tr>
<th>DUTIES FOR LEVEL</th>
<th>MoDOT - LEVEL 1 BITUMINOUS</th>
<th>MoDOT - LEVEL 2 BITUMINOUS</th>
<th>MoDOT - TSR (T-283)</th>
<th>KDOT - SF</th>
<th>KDOT-SD</th>
<th>NDOR - ASPHALT CONCRETE TEST TECHNICIAN</th>
<th>NDOR - BITUMINOUS (PG BINDER) MATERIAL SAMPLING TECHNICIAN</th>
<th>IDOT - HOT MIX ASPHALT LEVEL 1 TECHNICIAN</th>
<th>IDOT - HOT MIX ASPHALT LEVEL 2 MIX DESIGN TECHNICIAN</th>
<th>IDOT - HOT MIX ASPHALT SAMPLER</th>
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<td>PREREQUISITE</td>
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<td>Level 1 Technician, Level 1 Bituminous</td>
<td>Level 2 Bituminous</td>
<td>ACI, AGF, Basic Math</td>
<td>ACI, AGF, AGL, Basic Math</td>
<td>Aggregate Level 2</td>
<td>Hot Mix Asphalt - Level 1</td>
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**Note:** The table provides a summary of duties, prerequisites, specific tests, training materials, class length, qualification length, initial and requalify written and proficiency tests, other initial and requalify requirements for various levels and roles in bituminous materials testing and sampling. For a detailed understanding, consult the referenced documents or resources.
<table>
<thead>
<tr>
<th>Duties for Level</th>
<th>MoDOT - Level 1 Technician</th>
<th>MoDOT - Level 2 Aggregate</th>
<th>MoDOT - Level 2 Soils</th>
<th>MoDOT - Plasticity Index</th>
<th>MoDOT - Aggregate Specific Gravity</th>
<th>KDOT - ACI AGF</th>
<th>KDOT - Kansas AGL</th>
<th>KDOT - Soils</th>
<th>NDOR - Soil Test Technician</th>
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<td>1 Day</td>
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<td>Under KDOT Aggregate Specifications 1 1/2 represents the maximum size aggregate permitted. Rodding is the only permissible procedure in KT-5.</td>
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<td>Allowance for consolidation by shovel when used for determining opening strength (IM-328)</td>
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<td>T-84</td>
<td>Yes</td>
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<td>KT-6, AGL</td>
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<td>T-84 uses cone test for determination for SSD condition. KT-6 under note 2 states Provisional Surface Test, the use of &quot;a worn oxidized&quot; surface is permitted and represents the method presented in d.2.b.</td>
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<td>T-85</td>
<td>Yes</td>
<td>MoDOT Method for Aggregate Preparations (MoDOT TM-79)</td>
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<td>T-89</td>
<td>Yes</td>
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<td>KT-10 allows for method &quot;A&quot; only.</td>
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T-84 uses cone test for determination for SSD condition. KT-6 under note 2 states Provisional Surface Test, the use of "a worn oxidized" surface is permitted and represents the method presented in d.2.b.

T-85 requires dry sieving and then thoroughly wash to remove dust or other coatings from the surface. KT-6 states thoroughly wash the sample over the no.4 sieve to remove dust and other adherent coatings. KT-6 states Immerse the sample in water and stir vigorously. Soak for a period of 24 +/- 4 hours. T-85 requires the sample to be dried to constant mass prior to immersing in water for a period of 15 to 19 hrs. KT-6 states Immerse the sample in water and stir vigorously. Soak for a period of 24 +/- 4 hours. T-85 requires the water temperature to be 23 +/- 1.7 degrees C. KT-6 Changing the temperature to 25 +/- 1.0 degree C establishes a uniform temperature requirement on all water bath test-related procedures.

T-87 uses cone test for determination for SSD condition. KT-6 under note 2 states Provisional Surface Test, the use of "a worn oxidized" surface is permitted and represents the method presented in d.2.b.

T-89 uses cone test for determination for SSD condition. KT-6 under note 2 states Provisional Surface Test, the use of "a worn oxidized" surface is permitted and represents the method presented in d.2.b.

T-90 uses cone test for determination for SSD condition. KT-6 under note 2 states Provisional Surface Test, the use of "a worn oxidized" surface is permitted and represents the method presented in d.2.b.

Not screened over large sieve before the No. 12 sieve.
**TEST METHODS**

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<tr>
<td>T-99</td>
<td>Yes</td>
<td>KT-12 Soils</td>
<td>T-99 references T-19 to calibrate the mold. T-19 permits the use of varying temperatures with correction factors to compensate for the water density. By using the fixed temperature 25 +/- 1.0 degree C requirement, KDOT uses a single value 997 kg/m³ for the density of water during the calibration of such apparatuses.</td>
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<td>T-100</td>
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<td>T-166</td>
<td>Yes</td>
<td>KT-15, SF/SD</td>
<td>T-166 and the test method using vacuum sealing require a 2 hour interval. KT-15 states the specimen shall initially be dried overnight at 52 +/- 3 degrees C and then weighed at 1 hour intervals.</td>
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<td>T-168</td>
<td>Yes</td>
<td>KT-25, SF/SD</td>
<td>MoDOT stipulates sampling from one location vs. three described in the test method.</td>
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<td>T-176</td>
<td>Yes</td>
<td>KT-55, AGL</td>
<td>T-176 also includes a pre-wet method. The air dry method is the only method permitted for preparing the aggregate under KT-55. T-176 provide alternative means of shaking the sample, the manual and hand method, these alternatives are not options under KT-55.</td>
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<td>T-179</td>
<td>Yes</td>
<td>KT-59, SF/SD</td>
<td>KT-39 specifies the water bath be maintained at 25 +/- 1 degree C. T-209 provides an additional Section 8. This section is not addressed in KT-39.</td>
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<td>T-272</td>
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<td>MoDOT curves used per MoDOT test method (MoDOT TM-40) No</td>
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<td>KT-56, SF/SD</td>
<td>T-283 requires the material to be cured in an oven at 60 degrees C for 16 hours prior to curing. KT-56 states Place the mixture in a oven set at the appropriate compaction temperature and age the material for 2 hours.</td>
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**Notes:**
- Standard test method for air content of freshly mixed concrete by volumetric method.
- Determination of Percentage of crushed particles in crushed gravel.
- Uncompacted void content of Fine Aggregate.
- Soils Field density tests of soils, treated base courses and water bound base courses.
- Soils Method of test for density of compacted bituminous mixtures by nuclear method.
- Density of fresh concrete in bridge deck overlays by nuclear gauge.
- Density of fresh concrete in pavement by nuclear method.
- Determination of density and moisture content of Portland cement treated bases, aggregate bases and aggregate shoulders by nuclear method.
- Field density and moisture tests of soils by nuclear gauge.