


SEAUPG 2005 CONFERENCE - NASHVILLE, TN

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Southeast Asphalt User Producer Group
Annual Meeting - Nashville, Tennessee
December 14, 2005

Todd A. Lynn, Ph.D., P.E.
Manager of Materials Services



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A National HMA Technician Certification Program


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Opening Remarks

- Constructive Criticism
- "Turn on" not "Turn off"
- "Just the facts please"
- Appeal to sense of reason
- K.I.S.S. = Success
- "We're here to HELP!"




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Outline

- A National Certification?
- Specifications
- Certifications
- Test Methods
- National Certification Program
 - One approach
 - Alternatives




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A National Certification?

- Why?
 - Facilitate operations (EVERYONE'S)
 - Address HR issue
 - Save \$
- Impossible?
- Obstacles?
 - Non-standard test methods
 - Mindsets



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FOCUS (September, 2001)

- A well-trained workforce is a more efficient and effective workforce. With that goal in mind, the Transportation Curriculum Coordination Council (TCCC), formed in the summer of 2000, has dedicated itself to improving training opportunities for transportation workers. The Council's goals also include developing a national core curriculum that can be used by any agency and building partnerships among State highway agencies and industry associations so as to save time and costs in developing training materials.

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TCCC Report (December, 2004)

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- "Rebuilding the highway construction task force is an industry priority as agencies across the country face a serious shortage of trained and experienced personnel resulting from attrition and an aging workforce. At the same time cutting-edge construction and system preservation technologies demand new skills and knowledgeable construction personnel. Consequently, efforts to train and certify highway construction personnel have intensified in recent years. The Federal Highway Administration (FHWA) has taken a pro-active role in this effort. **In order to streamline the process and avoid duplication of efforts, the Transportation Curriculum Coordination Council (TCCC) was formed in September of 2000.**
- The TCCC is a partnership between the FHWA, State Departments of Transportation (DOTs), and the highway transportation industry to support the training of the highway construction personnel. The TCCC's mission is to provide leadership at a national level, **develop and maintain a national curriculum for various transportation disciplines, identify training and certification requirements, and coordinate/facilitate training efforts.**"

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Specifications

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- General
- Special provisions
- Project specific
- Unique




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Certifications

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- "Vary" by state
- Regional Alliances
- Reciprocity




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Certification Programs: Present Status

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- "I got mine!"
- "They ain't no equal!"



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Regional Alliances?

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- Are they working?
 - NETTQ – New England Transportation Technician Certification Program
 - MARTCP – Mid-Atlantic Region Technician Certification Program
 - WAQTC – Western Alliance for Quality Transportation Construction
 - Others
- SETFTTQ – Southeast Task Force Testing Technician Qualification
- Missions vary
- Why?

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Reciprocity?

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- Does it exist?
- NO!
- Instance: APAC QC Mgr. w/ PE and highest level HMA cert. in 2 other states denied reciprocity
- Environment: Two SE states will not even consider
- SETFTTQ – To address in the future (next meeting March 2006)

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A National Certification?

- Why not?
- Major Obstacle: Non-standard test methods



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Non-Standard Test Methods

- Problem or perceived problem?
- SEAUPG states
 - 5 use AASHTO “straight up”
 - 4 use combination of AASHTO, ASTM and DOT
 - 4 are “unique” (in reality, borrowed heavily from AASHTO)
- Problem therefore really one of perception

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A National Certification: NICET

- The “Old”
- The “New”

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The “Old” (i.e. Current) NICET Program

- Application
- Qualification
- Testing (modular)
- Principal advantage: administered nationally
- Principal disadvantage: lack of proficiency testing
- Not “Customer Focused”

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The “New” (i.e. Proposed) NICET Program

- Customer Focused
- Application
- Qualification
- Testing (modular)
- Proficiency testing

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Proposed NICET Level I HMA Technician

- Mechanical Analysis of Extracted Aggregate (P)
- Quantitative Extraction of HMA from Paving Mixtures
- Sample Asphalt Binder
- Sample Hot Mix Asphalt
- Reduce Samples to Testing Size
- Determine Specific Gravity of Compacted HMA Mixtures (P)
- Determine Maximum Specific Gravity of HMA Paving Mixtures (P)
- Determine Resistance to Flow by Marshall Method
- Determine Percent Air Voids in Compacted Dense and Open HMA Paving Mixtures
- Determine Bulk Specific Gravity of HMA Mixtures using Parafilm-Coated Specimens
- Prepare and Determine Density of HMA by Gyratory Method (P)
- Determine Asphalt Binder Content of HMA by the Ignition Method (P)
- Determine Asphalt Content of HMA Mixtures by Nuclear Method
- Total Moisture Content (Aggregates & HMA) (P)
- Locate and take random samples Locate and take random samples (P)
- Reduce sample for aggregate testing (P)
- Test aggregates to determine gradation (P)


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Closing Comments ASHLAND.

- What about specification differences?
 - National Certification
 - Couple with mandatory specification exam
- Alternatives
 - Regional Certification Program
 - Resuscitate SETFTTO
 - SEAUPG?
 - Maintain status quo
- Opportunity



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