

# Mn/DOT Technical Certification Program

Office of Construction and Innovative Contracting

MNTRAC Meeting August 2010

## Technical Certification Program (TCP)

- Introduction – Why do we do what we do?
- The Code of Federal Regulations (CFR) -The “Headwaters” of the TCP
- Description of the TCP processes
- Website and publications – past and present
- What’s new?

## CFR is The “Headwaters” of the TCP

- We are mandated by CFR 23 (Highways), Part 637 (Construction Inspection and Approval), Subpart B, (Quality Assurance Procedures for Construction) to have a QA/QC program in place.
- Each State Highway Agency to have certification of personnel by June 2000.
- Mn/DOT has had a program in place since 1989
- Link to CFR 23 – Part 637 from TCP website: <http://www.dot.state.mn.us/const/tcp/> under More Links

## CFR 23 -Part 637

**637.201 - Purpose**  
To prescribe policies, procedures, and guidelines to assure the quality of materials and construction in all Federal-aid highway projects on the National Highway System.

**That’s why we do what we do**

Additional sections provide information in the following areas:

**637.203 - Definitions**  
**637.207 - Policy**  
**637.207 - Quality Assurance Program**  
**637.209 Laboratory and sampling & testing personnel qualifications**

## An acceptable Certification Program should have:

- Formal training
- Hands-on training in lab
- A period of on-the-job training
- A written examination
- Re-qualification at set intervals
- Process to remove non-performing personnel

## “Qualified personnel”

“Personnel capable of performing sampling and testing as established by each State Highway Agency (SHA).”In Minnesota, certification authority has been delegated to the Office of Construction and Innovative Contracting.

## Who needs Mn/DOT Technical Certification?

- Personnel performing testing and sampling on Federal, State, and State-Aid projects on the trunk highway system.
- Includes Registered Professional Engineers (P.E.) performing QA/QC tests
- Others as prescribed by contract, supplemental agreement, etc.

## Description of TCP processes

- Technical Certification Handbook - provides an overview of the TCP
- Training Season
  - Starts October 1 every year
- Certification classes offered:
  - 11 areas first time certification
  - 9 areas of recertification
  - Additional certifications to comply with the CFR
    - Strength Technician in lab for accreditation

## Certification Levels

Mn/DOT's Technical Certification Program has two levels:

- Level 1 – Tester
- Level 2 – Inspector

## Certification Areas

- Aggregate Production
- Bituminous Plant
- Bituminous Street
- Bridge Construction 2 (for new bridges)
- Concrete Field
- Concrete Plant
- Grading & Base

## Bridge Inspection for In-place Bridges

- Overseen by Bridge Office to meet state statute
  - Bridge Safety 1
  - Bridge Safety 2
  - Other requirements including performance evaluation
  - This is done through LSC, NHI and the Bridge office

## Program Updates

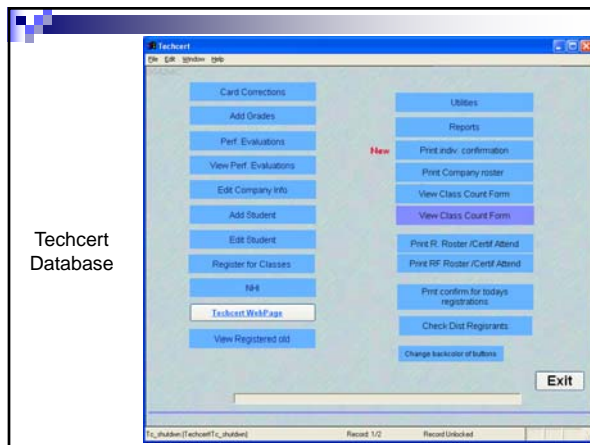
- Registration
- Website
- Publications
- New delivery of courses

## Registration

- Information goes online October 1 every year
- This year will be “one stop shopping”
- All registrations will be online on the ARM website
- One calendar
- One registration form
- Changes & cancellations handled by ARM
- Classes begin the middle of November and run through May 1.

## Tech Cert Classes

- Classes run from 8:00AM - 4:30 PM
- Cancellation policy- written notice 7 calendar days
- Waiting lists to assure enough sessions
- Held as need all around the state



## Certification Cross-section

- Number of Classes
- Evaluations
- Number of Certified in each area both Mn/DOT & Private Sector

The number of classes has had peaks in the past but has become more consistent. We anticipate other means of delivery for certification and recertification this year and hope this will address the needs brought to our attention in evaluation feedback.

## Classes and attendees

- 2006-2007- 132 classes, 3444 students
  - 83 Cert classes - 1751 students
  - 49 Recert classes - 1693 students
- 2007 - 2008 - 128 classes, 2998 students
  - 77 Cert classes - 1575 students
  - 51 Recert classes - 1423 students
- 2008 - 2009 - 118 classes, 2521 students
  - 67 Cert classes - 1463 students
  - 51 Recert classes - 1058 students
- 2009 - 2010 - 108 classes, 2537 students
  - 66 Cert classes - 1391 students
  - 42 Recert classes - 1146 students

## Evaluations

- Student Evaluation Forms are sent to each class session
- Students rank the Instructor, Learning Material, Facilities and the Course overall on a scale of 1-5. We target a rating of 4.0 and above for all areas.
- All instructors, specialty offices, training partners and management get the evaluations at the end of the season when we do our “rollup”.
- Evaluations are invaluable for getting and responding to feedback from classes.

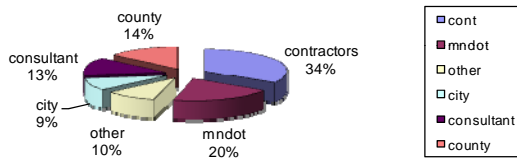
## Testing

- Exams are given at the end of each class. Must also complete Performance Review for some classes.
- Students are notified of their grade by postcard (over 60%) or letter (under 60%)
- Certification requires a minimum grade of 70%
- **Retest** is given one time if score is 60-69% at no additional charge. Student must pursue the process through our office.

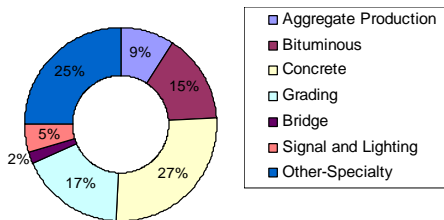
## Mn/DOT Certification

- Formal certification lasts for 5 years
- Must successfully complete class, all prerequisites, and a performance review (if required) to gain certification.
- Certifications are held by a broad range of agency and private construction technicians

Number of Individuals with at least one certification



Number of Students per Course



## Re-certification

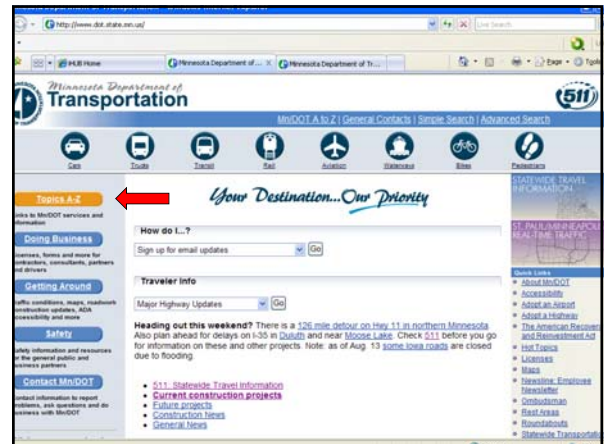
- Formal certification lasts 5 years
- Need to re-certify before certification expires
- Re-certification courses held every year
- Expired certifications ineligible for re-cert
- Currently no re-certification for Agg. Prod.

## Website & publications- what's new

- This past year, I worked with our Communications Office to make our website ADA compliant.
- I redesign our site for the start and stop of the training season every year.
- There will no longer be 3 class calendars and 3 registration forms. Registrations will no longer be available from our site, they are directed to the ARM site.
- ARM will handle all registrations, payments and cancellations.
- Handbook is updated as needed.
- Inspectors Job Guide will be updated for 2011.

## TCP Website

- [www.dot.state.mn.us/const/tcp](http://www.dot.state.mn.us/const/tcp)
- Annual Certification card information
- Get Tech ID number
- Maps, addresses for training facilities and lodging
- Contact information
- Links to Training Partners, Industry Groups, Specialty Offices, NHI website, and other training resources.
- Forms & Publications and FAQ page


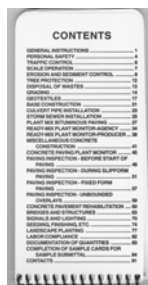


## Annual Certification Cards

- Mailed out at end of training season in May
- Shows all current certifications and those that have or will expire the next year
- Student breakdown - 20% Mn/DOT, 80% non-Mn/DOT
- Approximately 5,000 certification cards mailed annually
- Approximately 3,500 personnel trained annually

## Inspectors Job Guide

- Current edition - 2009-2010
- New edition in 2011

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## New Course Delivery

- Bituminous Street Recertification for 2009-2010 Season
  - Pilot Self-Study Course for those whose certification will expire in 2011
  - 28 students out of 100 eligible took part
  - 26 passed and 2 failed
    - Students who failed allowed 1 retest or
    - Can still recertify by taking class in 2010-2011
  - Evaluations were in the 3.9 out of 5 range overall
  - I designed a flow chart showing the steps for delivering training and put course materials on CD for students.
  - Students tested with IAIs in each district.
- Will be doing a Concrete Field 1- ACI certification only this season.

## TCP Training Partners

- Aggregate and Ready Mix Assoc. of MN (ARM)
- Lake Superior College (LSC)
- Mn/DOT Specialty Offices

Thank you