Improving Concrete Quality

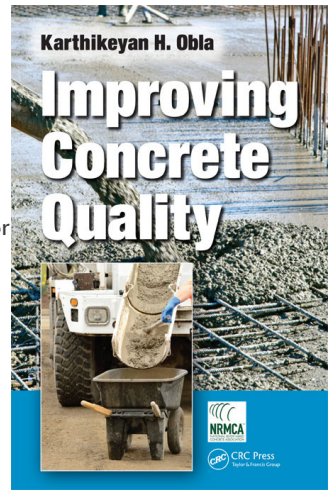
WEDNESDAY, JANUARY 17, 2018, EAGAN, MN

AGGREGATE & READY MIX ASSOCIATION OF MINNESOTA

Minnesota Concrete Council
Dedicated to Cast-in-Place Concrete

PURPOSE AND BACKGROUND

Improved concrete quality has far reaching benefits—in improved performance, reduced time and costs, a lower environmental footprint of concrete and an overall improvement in the quality of concrete construction. However, it is hard to find a course focused on the subject of improving concrete quality. Based on quality surveys and award submissions, it has been observed that the industry does not commonly track quantifiable quality indicators and, as a result, the return on quality investments is not well understood. Improving Concrete Quality, a book authored by one of the instructors, addresses these issues. That book, as well as other NRMCA resources provides the basic content for the course.



WHAT WILL YOU LEARN?

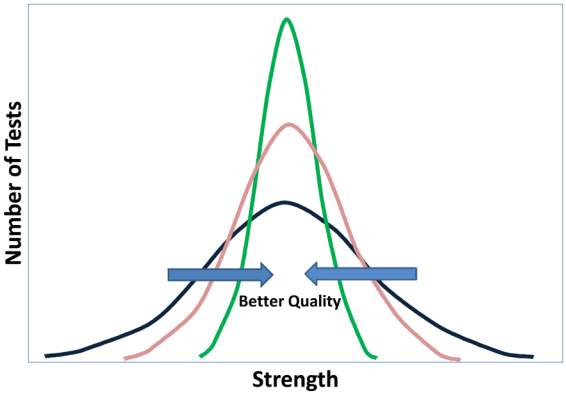
- How do you know if you have good quality? What should be your quality metric?
- How to become more profitable through better quality?
- What are all the key statistical calculations you need to know in concrete?
- How to control the mixing water content in concrete?
- How to deal with temperature and delivery time variations?
- What is the most effective way to ensure that your material ingredients are of good quality?
- How to improve batching accuracy, mixing uniformity?
- How to identify non standard testing and curing? How to improve testing quality?
- Tests a producer should do, internal audits and many more...

WHO SHOULD ATTEND?

This course will be of significant value to concrete producers that will come away with readily implementable steps to manage variability and attain a more consistent product, thereby seeing performance benefits and cost savings. Concrete ingredient material suppliers will benefit by understanding the needs of their customers and to develop information on variability that can help their quality systems.
The course will be of interest to contractors and testing laboratories. The course will help testing labs measure and improve testing quality.
Design professionals can benefit from this course by recognizing the opportunity for improved quality in concrete construction and the evolution to performance-based specifications.

TEXT/HANDOUTS – PUBLICATIONS WORTH $350+

- NEW Improving Concrete Quality book
- Printout of the presentations
- NRMCA QC Manual Section 1
- Quality Management System for Ready Mixed Concrete Companies
- NRMCA Quality Award, Survey and Certification Information
- Variables that Influence Concrete Compressive Strength
- Code and Standards Requirements for Acceptance Testing – Presentation with notes and checklist
- NRMCA/ASCC Pre-Construction Checklist
- Related Technology in Practice topics
- Related Specification in Practice topics and P2P Presentation



INSTRUCTORS

Kevin A. MacDonald, FACI, is president and principal, Beton Consulting Engineers LLC, Mendota Heights, MN, with specific expertise in the production and performance of concrete. He is a licensed professional engineer in Minnesota and Ontario, Canada, and is a fellow of ACI. MacDonald co-chairs ACI subcommittee 130-B, Production/Transport/Construction; ACI committee 306, Cold Weather Concreting; chairs the NACE task group; and the TAC awards task group and is an active member of several ACI committees. He is the current president of the ACI Minnesota chapter and serves on the Steering Committee of the Aggregate & Ready Mix Association of Minnesota. He is an active member of ASTM Committees C01, Cement; C09, Concrete and Concrete Aggregates; and C15, Manufactured Masonry Units; the American Society of Civil Engineers (ASCE) and Professional Engineers Ontario. He has published a number of papers dealing with the durability of concrete and is a recipient of the ASCE Charles Pankow Award for Innovation for work on high-performance concretes with 98% reclaimed materials. MacDonald received his master's degree and Ph.D. in engineering materials from the University of Windsor where he has won many awards for academic achievement.

Karthik Obla, Ph.D., P.E., FACI, is vice president, technical services at NRMCA. With nearly 25 years of experience in concrete technology, he is responsible for NRMCA's concrete producer quality initiatives as well as various educational and technical programs. He supports NRMCA's P2P initiative and directs the activities of the NRMCA Research Laboratory. A fellow of ACI and a winner of ACI's Young Professional Achievement Award and ASTM Award of Appreciation from the Sustainability Committee, Dr. Obla is an active member of various ACI, ASTM, and TRB technical committees. He has served as chair for ASTM 09.49—Pervious Concrete, and ACI 232—Fly Ash and Natural Pozzolans. He has published a book on concrete quality and a chapter in a book on concrete sustainability and has over 75 technical articles in journals. He holds a B. Tech in civil engineering from IIT (BHU) Varanasi, India and a M.S. and Ph.D. from the University of Michigan, Ann Arbor. He is a licensed professional engineer in the state of Maryland and has served as vice-president and president for the ACI San Antonio Chapter.

IMPROVING CONCRETE QUALITY

Wednesday, January 17, 2017, Eagan, MN

COURSE SCHEDULE:

7:30 am	Registration
8:00 am	Overview of Quality Department
8:15 am	Quantifying Impact of Quality Systems
8:45 am	Statistical Concepts for Monitoring Quality
9:30 am	Monitoring & Controlling Water Content in Mixtures
10:15 am	Break
10:30 am	Quantifying Variability of Ingredient Materials
11:30 am	Quantifying Variability Associated with Manufacturing
12:30 pm	Lunch
1:30 pm	Quantifying Variability Associated with Testing – Monitoring Test Data
2:15 pm	Producer Product Testing to Minimize Variability
2:45 pm	What to do with acceptance test data – Case study of 3 projects
3:15 pm	Impact of Specifications on Quality
3:30 pm	Break
3:45 pm	The Quality-Sustainability Link
4:00 pm	Quality Management System (developing a Quality Plan NRMCA Quality Certification Program)

COURSE LOCATION:
Aggregate & Ready Mix Association of Minnesota
2955 Eagandale Blvd, Ste 300, Eagan, MN 55121
Phone: (952) 707-1250
Parking is available.

HOTEL INFORMATION: Hampton Inn Minneapolis/Eagan
3000 Eagandale Place, Eagan, Minnesota, 55121
Phone: (651) 688-3343

TRANSPORTATION: 6.5 miles away from ARM Office or Hotel (10 minutes by taxi)

PARKING: Parking is onsite, lot parking – no fee applies.

CLOSEST AIRPORT: Minneapolis–Saint Paul International Airport

CANCELLATION POLICY
All cancellations after 12/20/17 will not be refunded. Cancellations must be made in writing to NRMCA Meetings Dept., 900 Spring Street, Silver Spring, MD 20910 or by fax to (301) 565-8200. NRMCA reserves the right to cancel the conference. If that should occur, NRMCA will notify registrants by 12/20/17 and refund the entire registration fee but not unused airline tickets, hotel reservation fees or other travel related expenses.

REGISTRATION FORM: Improving Concrete Quality

Wednesday, January 17, 2017, Eagan, MN
(Register using the attached registration form or online at www.nrmca.org/Education/Seminars/improving_concrete_quality.htm)

Name: _____

Title: _____

Company: _____

Address: _____

City: _____

State: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

REGISTRATION FEE

☐ $295 Members/DOT or ☐ $395 Non Members

PAYMENT METHOD

☐ Check (make check payable to NRMCA)
Mail registration form and check to:
SunTrust Bank, c/o NRMCA
P.O. Box 79433
Baltimore, MD 21279

☐ VISA ☐ MasterCard ☐ American Express

Card Number: _____

Expiration Date: _____

Name on Credit Card (print): _____

Signature: _____

REGISTER ONLINE: http://bit.ly/2hS473v

OR FAX THIS REGISTRATION FORM TO:
MEETINGS DEPT., NRMCA
(301) 565-8200

NRMCA
NATIONAL READY MIXED CONCRETE ASSOCIATION

This course earns **8 credits** toward a CCP*f* designation in the Concrete Technology career track. CCP*f*, standing for Certified Concrete Professional, is the highest professional designation in the industry. For more information, visit www.nrmca.org/steps.

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