



THE TEST REPORT

A Newsletter of the California Council of Testing and Inspection Agencies

2008 President Announced!

By Elizabeth Levi

Spring 2008

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Welcome our new President, Rick Van Horn! Rick has hit the ground running this year and is working on his number one goal which is to have more meetings across California to gain further involvement with member firms. He has asked the Board to have meetings in Sacramento, Modesto, Bay Area, Anaheim, San Diego, and Ontario. Another of his goals is to have further Educational Seminars hosted by CCTIA for Continuing Education Units (CEU's). Our next seminar is in Sacramento, June 7th, 2008. We are looking for some great participation from our membership firms!



President Van Horn has listened to your comments and suggestions through the membership survey recently sent out for the Annual Business Meeting location and venue. The results are in and the location will continue to be in Las Vegas! We also heard what you like and what you don't like in regards to pricing, food, activities, and speakers. It was a fantastic survey with great suggestions and ideas that will be taken under consideration when planning the event. The Annual Business Meeting will have a speaker/panel slated as well as a full day of Business Meeting to go over the years progress as well as items/issues that still need to be resolved and what the incoming Board can expect for tasking.

We continue to look for speakers and industry issues to address at our upcoming meetings. If you have any suggestions on what you would like to hear, please email Elizabeth Levi at elevi@bskinc.com.

ABM 2008 Las Vegas Highlights

By Elizabeth Levi

Well, the Annual Business Meeting for CCTIA came to a grand close on Saturday, January 26 with the new 2009 Board of Directors and President being welcomed into the New Year. Outgoing President Elizabeth Levi took the time to carefully thank all of her Board as well giving certificates out to all of her Committee Chairs and team members. Treasure Island hosted the event for us and they did a fantastic job from the well equipped rooms to the great banquet service. A special commemorative plaque was given to Gary Balbi of Matriscope and was presented to Robert Tadlock later at Matriscope Headquarters. Industry lost a great leader last year and we wanted to pay our respect. The Charles Helmsley Award went to Jeffrey Cannon of Kleinfelder for his support and leadership with all the groups and committees he worked with this past year. A big round of thanks goes out to all who worked and helped put together so many of the great programs throughout the year for this Association. It was my pleasure serving as your President this past year.

We're on the Web!
<http://www.cctia.org>



Beyond Pen and Paper: The Role of Document Control in Quality Management by Prasanth Ramakrishnan, IAS Accreditation Officer, Los Angeles, California

Whether in the structures we build or the services we provide, the building and construction industry has always emphasized the importance of quality. For many, that focus has manifested itself in new and improved policies, procedures and overall business processes. However, many organizations forget the importance of organization-wide document control—at least until something goes wrong.

Ineffective document control, such as use of an outdated document or form, can impact the profit of an entire organization, wasting time and materials, causing unnecessary expenditures or, in worst cases, resulting in dissatisfied customers and loss of profits.

From a small shop to a large, international company, document control is one of the foundations for organized, uniform and consistent quality of work. There are some best practices for document management that every organization can follow to ensure product or service quality.

First, assign a quality manager; an individual who is responsible (among other things) for managing documents, as well as some person in charge of quality management when the quality manager is not available. Internal documents that need to be controlled might include a quality manual, quality policy and objectives, test data forms, complaint forms, client feedback forms, non-conformance reporting forms, and appeal forms. External documents typically include

Standards with which an organization needs to demonstrate compliance in order to operate the business effectively.

One of the quality manager's jobs is to establish enterprise-wide standardized document practices. Every document should include basic information such as a title, date of issue, authorizing signature, pagination, a unique identification number and the revision sequence. The quality manager should establish document guidelines up front, and make sure everyone in the company has access to standardized document templates. Managing documents in a safe and controlled environment also requires some organization and care. It is imperative that the quality manager maintain a master list of current documents, with the date of issue for each as well as revision information.

Current documents should be accessible to staff with read/write permissions as appropriate, while older documents should be archived in an obsolete folder. It is often very difficult to maintain document control in a large company; to effectively execute the process, employees can be provided access to a shared folder with read-only permission.

Periodic document reviews by the quality management team (following, for example, internal audits or management reviews) will help fill document voids and enhance the effectiveness of the organization's overall quality management system. At the same time, don't forget to communicate with employees. Hold regular staff and send email updates about quality policies and procedures, to keep standard fresh in

the minds of those who use them every day.

The benefits of a well-run document control process are not always tangible or readily reflected in a company's bottom line. However, document control is an important and critical piece of the overall management system. Document control can be applied to any organization, ranging from production shops, testing laboratories and inspection agencies, to building departments, administrative bodies, hospitals, schools, consultancies and legal bodies.

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UPCOMING MEETINGS

June 26, 2008 at 3pm
Hilton Pleasanton at the Club
7050 Johnson Drive
Pleasanton, CA

July 24, 2008 at 2pm
Fairfield Inn in Anaheim
1460 S. Harbor Blvd.
Anaheim, CA

FAQ 10.033: Concrete Shrinkage

Our project specifications indicate that a specific class of concrete mix shall not exceed a shrinkage limit of 0.040% at 21 days drying. The concrete supplier does not have lab test data to support the performance of the mix, but has some field test results from a recent project. Should we use this information to accept the mix? -San Francisco S.E.

The typical standard used to reference shrinkage limits for a project is C157 "Length Change of Hardened Hydraulic-Cement Mortar and Concrete". This test method is a very sensitive *laboratory test* based on specific criteria for mixing, sampling, curing and measuring. Some criteria may vary, such as storage, allowing for either water or air, which can have significant influence on the test results. SEAONC developed a modified procedure to C157 in the 1960's commonly referenced in project specifications that make several changes that include sample size (4x4x11 vs. 3x3x11), initial curing (7 days vs. 28 days wet cure) and air drying (50% RH). It is this modified procedure that most project specification limits are based. As with interpreting and analyzing any test results, it is critical to make sure you are comparing apples to apples.

Although every project would like to limit shrinkage to the least possible amount, it is important that limits be specified only when necessary and if the proper quality control, including laboratory testing, can be established. Local materials or mix proportions may not be able to meet shrinkage requirements without the addition of costly admixtures that can affect other properties of the mix. Lab test values should be used as a basis to determine the acceptability of materials and proportions and should not be used categorically. Furthermore, as with concrete compression testing, the results from shrinkage testing are not necessarily representative of the performance of the mix in-place because of the complexity of the factors that influence shrinkage. Similarly, field cast shrinkage samples are typically found to be greater than lab cast samples. Some specifications allow for 15% to 25% higher tolerances, while the SEAONC "Supplementary Recommendations for Control of Shrinkage of Concrete" gives maximum ranges for different classes at 21 days drying for lab from .036 to .060, while field cast specimens are in the range of .048 to .080.

Given the factors noted above, field-testing data can give some indication of the quality of the shrinkage characteristics, however reliance on this information for material acceptance should be avoided. The bottom line is that, in the absence of a new ASTM for field-testing or modified specifications, there is no substitute for laboratory trial batching to determine the shrinkage limits of a specific mix.

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This is the author's opinion, not necessarily that of CCTIA
To read more or respond, go to www.CCTIA.org

**SAVE THE DATE and WATCH
FOR FURTHER INFORMATION**

**JANUARY 23 & 24, 2009
CCTIA ANNUAL BUSINESS MEETING**

**TREASURE ISLAND
HOTEL & CASINO**

**GREAT SPEAKERS, INDUSTRY MEET-
ING, GOOD FOOD, FUN & MORE**





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Current Members

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Condor Earth Technologies	Inland Foundation Engineering, Inc.	Terracon Consulting Engineers & Scientists
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Dynamic Consultants, Inc.	Matriscope Engineering Laboratories Inc.	Youngdahl & Associates, Inc.

FAQ: NDT of Fillet Welds?

What NDT inspection criteria is required by code for fillet welds?

Submitted by S.E. from Houston, Texas.

There are no general requirements for NDT of fillet welds in the 2001 CBC, AWS D1.1, AWS D1.8, or the AISC Specifications. The requirements in CBC Section 1703 apply only to the welds noted, and are the minimum NDT requirements. The Engineer has the option of requiring testing beyond the minimum requirements, including NDT of fillet welds, as part of the Statement of Special Inspections prepared by the responsible design professional. However, such testing is not specifically required by code.

Appendix Q of the 2005 AISC *Seismic Provisions for Structural Steel Buildings* (AISC 341) now lists specific locations where NDT is required for connections resisting seismic forces. The only connections that could potentially involve fillet welds are welds within the "k-area" of the section and repairs within the plastic hinge region of reduced beam section (RBS) moment frame connections. These provisions have not yet been adopted into the California Building Code.



FEMA-353 recommends the Engineer to develop a Quality Assurance Plan and indicate the appropriate Seismic Weld Demand Category and Seismic Weld Consequence Category for each welded joint on the design drawings. Magnetic particle testing is specified for fillet and PJP welds in all but two categories.

If desired, Magnetic Particle Testing (MT) should be used to test fillet welds. Ultrasonic Testing (UT) should not be specified for fillet welds.

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