



# THE TEST REPORT

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## PRESIDENT'S CORNER –

By Michelle Craig

Time has been racing by, as have the issues facing our industry. Our plate is full with a profusion of regulations, uncertainties, and accomplishments. Although it all seems overwhelming at times, our member firms continue to hang tough and shape our future.



The Membership Committee has been incredibly active. Thanks to their efforts we would like to welcome CCTIA's newest members: Inspection Services, Inc., CHJ, Inc., and KC Engineering. Applicants currently going through the process include Brown & Mills, Condor Earth Technologies, Coverall, Leighton Consulting, and Terracon Consulting Engineers & Scientists.

The Standard of Practice Committee continues its work with the Competency Advisory Program (CAP). The group has been meeting two and three times each month to expedite applications. Prequalified agencies currently total seventeen firms, and the list continues to grow. Additionally, more jurisdictions are finding the program to be a useful tool in establishing their own recognition lists. Due to interest expressed outside the eight Bay Area Counties, CCTIA's Board of Directors recently approved expanding the program throughout the State of California. Any firm with at least one office/laboratory located within the state boundaries may now apply. AASHTO's program was also added to the list of acceptable accreditations for prequalification under CAP.

April found the membership and

many guest firms in Ontario to discuss the implications of a current case under audit with the Employment Development Department (EDD) regarding the employment of independent contractors. Attorney Kristin Pace, representing the agency defending this practice, addressed a full house at this meeting. She included various handouts to assist firms in evaluating their exposure under EDD and IRS rules, in-house audit forms, and a sample contract that would assist firms in maintaining the independent contractor status. Copies may be obtained on the CCTIA website, as part of the April meeting minutes. Keen interest, lively debate, and concern over how the result of this test case may impact this common employment practice with Southern California firms has prompted CCTIA to invite Ms. Pace back for an update, possibly at our October meeting in San Diego.

The annual Tri-Chapter meeting held in Santa Cruz in May was well attended by local testing agencies. Of primary interest was a presentation by Dennis Richardson, Building Official with the City of San Jose, of an outline for a Special Inspection Joint Review Committee to replace the defunct Special Inspection Recognition Program. Participating building officials would review and discuss applications in meetings, but unlike the SIC program, would approve or deny recognition as individual jurisdictions. Also unlike the old SIC program, a CCTIA representative would not attend these meetings. Instead, a paid "industry expert", unaffiliated with any locally operating testing agency, would be selected. There was extensive discussion concerning how the participating jurisdictions would be able to pay this consultant, as no fees would be charged to the applicant agencies. The outline also described a mandatory waiver to be signed by applicants, authorizing participating jurisdictions "to

share all information including but not limited to agency performance and any pending complaints or disciplinary hearing information." Agencies would not be allowed to be present to hear, defend, or rebut these discussions. As the presentation was in draft form, we continue to wait for a finalized version and some indication of a timeframe for implementation.

Also held in May was the Regional Organization Forum, sponsored by ASFE. This first-ever meeting of testing and inspection associations from across the U.S. was conceived by ASFE for the purpose of addressing increasing problems with multiple accreditations and certifications being imposed upon our industry. In addition to CCTIA, other participating organizations included the California Geotechnical Engineers Association (CGEA), Colorado Association of Geotechnical Engineers (CAGE), Texas Council of Engineering Laboratories (TCEL), Washington Area Council of Engineering Laboratories (WACEL), Construction Materials Engineering Council (CMEC), Oregon Council of Engineering Laboratories (OCEL), and Northwest Council of Engineering Laboratories (NWCEL). Of common interest and concern to all the attendees was a current ballot for changes to ASTM E329 naming specific accreditation and certification programs. It was agreed that this item required immediate action to stop this inclination by the responsible ASTM committee. [Subsequent to the RO Forum, many of those present at this meeting also attended the ASTM committee meeting held in June, were successful in their efforts, and the negative ballots were found to be

We're on the Web!  
[http://  
www.cctia.org](http://www.cctia.org)

## President's Corner Continued

By Michelle Craig

*persuasive.]* Although mostly an introductory session, the RO's all found this format to be of great benefit, and agreed we had many more issues in common where combined efforts on a national basis would have a broader, more successful impact. ASFE has agreed to coordinate this forum again next year. Our thanks to ASFE and the CoMET Committee for sponsoring this informative and highly successful event!

Plans for the 2007 Annual Business Meeting to be held January 26<sup>th</sup> and 27<sup>th</sup> at Caesars

Palace in Las Vegas are well underway. Registration forms and hotel information are available CCTIA's website at [www.cctia.org](http://www.cctia.org). Watch for special program news and events in future issues of *The Test Report*. We sincerely hope that NWCEL, OCEL, and firms working in the Las Vegas area will join us for this event once again. We know there is much we can do to help each other, and this venue provides an excellent brainstorming opportunity!

It does not appear the pace of the second half of this

year will be any slower than the first. With so many issues impacting our industry as a whole, I extend my deepest gratitude to all the officers, committee chairs and members that have assisted me and dedicated so much time and effort to our causes. For those of you who are not members of CCTIA, won't you reconsider? There is no better forum for keeping informed, finding support, and getting your voice heard where it matters!

## DSA Advisory Board Inspection Committee Update

By Dan Cherrier and Cliff Craig

On Thursday June 29, 2006, the Inspection Committee for the Division of the State Architect (DSA) Advisory Board met in Sacramento. The Advisory Board is a State appointed board representing geotechnical engineers, structural engineers, architects, building officials, project inspectors (formerly Inspectors of Record), school board management, and two members from the general public. The Board advises the State Architect regarding policy decisions. In most cases, the State Architect adopts as policy the recommendations of the Board. Since testing laboratories and inspection firms are not represented on the Board, a representative from CCTIA normally attends as an "interested party."

Main topics discussed included:

- 1 Updates and changes for the Project Inspector examination,
- 2 New masonry exam questions,
- 3 New IR 17-1 outlining the new LEA Program,
- 4 New LEA Policy and Procedures Manual,
- 5 New Circular 17-2 on revised requirements for offering NDT services,
- 6 Control of special inspection by the LEA Responsible Engineer, and
- 7 New Verified Report forms on DSA's website.

There was significant discussion regarding results from the last project inspector exam.

The pass rate has risen steadily over the past three exam dates for the Class 2 and the Class 3 exams. The security of the examination questions and various approaches were discussed, including raising the percentage rate needed to pass. The current practice of reducing the experience necessary to sit for the exam for certain groups such as engineers was discussed, with a consensus that too much of a reduction is currently granted. It was unclear what the "rules" were and how they were being implemented.

The existing bank of masonry exam questions is too small. Adoption of the new California Building Code will further reduce the available pool, as the existing code questions will no longer be valid. Committee members and interested parties were requested to submit new questions for review. It is expected that Butte College, as part of their State training contract, will help with the replacement. It was noted by an interested party that ICC had considerable resource regarding means and methods of producing, evaluating and implementing examination programs.

The next topic was the latest draft of IR 17-1 regarding the Laboratory Evaluation and Acceptance (LEA) process. The document has changed to a one-page outline of the program. The description on individual LEA components has been moved to the proposed LEA Program Procedure Manual. The manual will be organized into four main sections: Introduction and Purpose (includes disciplinary procedures); Qualification Requirements (for the laboratory and the engineering manager); Application Process (including reinstatement); and Appendices (including fees and forms). The response from the committee was generally favorable to this approach.

Circular 17-2 dealing with the non destructive testing of welds was discussed. The new requirements utilize ANSI/ASNT CP-189-2001. This necessitates the Level III be certified by a national organization. The circular also details the day-to-day activities of the Level II technician. The reception from industry was very negative. Most interested parties felt that there is not an existing NDT problem, and the process is currently supervised sufficiently by the LEA Responsible Engineer.

The Chairman of the committee requested that DSA determine if special inspection was an LEA function or not. The Chairman requested DSA decide if special inspectors must work under a responsible engineer or are totally independent. The Chairman and interested parties felt that any mention of special inspectors should be removed from the LEA program unless all special inspectors are addressed in the program.

Staff noted that DSA now has a website devoted to special inspection and testing (<http://www.dsa.dgs.ca.gov/labs/default.htm>) which should be easier to find and use. Included is a link to the new Report Templates and Forms. The templates are for inspection and testing but are not mandatory yet; however, staff is pushing in that direction.

DSA's website indicates the Special Inspection Verified Report (SIVR) and the Laboratory Verified Report (LVR) "... must be submitted on these forms". The testing and inspection industry consensus was that the language in the Verified Reports was misleading and not within the scope of the signing supervising engineer.



## DSA Advisory Board Inspection Committee Update Continued

By Dan Cherrier and Cliff Craig

it might even jeopardize their E&O insurance. It was agreed to form a task group to review industry concerns and propose language that would be acceptable. This task group is to meet via teleconference to be scheduled and implemented by the committee staff. Members of the task group are:

Dennis Shallenberger (Chair) with Earth Systems, Paul Beyl Jr. with CQAG, Stephanie Gonos with Hancock Gonos, Cliff Craig with Dynamic Consultants, Inc., Dan Cherrier with BSK & Associates, Dean Stanphill with Converse Consultants, David Redford with Wallace-Kuhl, Eric France with DSA, and Jeff Enzler with DSA.

Watch for additional information in future CCTIA meeting minutes and newsletters.

## CCTIA Reminiscence: A Historical Annotation

By Merlyn Isaak

Editor's note: Merl Isaak was recently congratulated by CCTIA for his years of service to the T & I profession. CCTIA asked him to jot down some of his thoughts and memories. Following is his account.

### Early Years' Frustrations:

- 1 Lack of recognition by design professionals (architects and engineers, not to mention owners) of importance of Testing and Inspection (T & I).
- 2 Lack of uniformity in establishing qualifications for inspection personnel.
- 3 Lack of training curricula available for inspection personnel.
- 4 ICBO's outdated special inspector exams (with no experience requirement).
- 5 Cheap price competition.

Eventually, some of these frustrations were addressed one way or another, to varying degrees, some by the T&I profession and others by code authorities. Some examples:

- (1) With considerable pressure from the T&I profession, ICBO did eventually hire an individual with degrees in psychometrics (which, briefly and greatly oversimplified, is the science of constructing meaningful exams) to help clean up their outdated and largely irrelevant certification exams.
- (2) Addressing the issue of lack of enforcement uniformity, the T&I industry in the San Francisco Bay area joined together to form an organization called "The Association of Northern California Testing and Inspection Agencies" (ANCTIA, now evolved into current CCTIA), which created a generic form for use as a T & I checklist of special inspection and testing requirements for any project. The form was patterned after one used by the Office of the State Architect (OSA) for schools (schools only at that time, with hospitals added later).

*It should be emphasized that there have been no deaths, or even injuries, caused by structural failure in schools and hospitals since the implementation of the OSA review and inspection requirements!*

- (3) With respect to uniformity of qualifications for inspection personnel, several ancillary organizations such as ACI, AWS, and NICET, have implemented training and certification programs. Our T&I profession has provided countless hours (read \$\$) of input to help get these programs off the ground and make them relevant to the actual work an inspector performs. The weak link is typically in enforcement of recommended guidelines and even code provisions.
- (4) My first few years in the T&I business, I was flabbergasted to find that a couple of the largest cities in the Bay Area were not even enforcing the "Special Inspection" section of the UBC! Thankfully, that is no longer the case, but the considerable variations in the level of enforcement continue to complicate the life of T&I firms. At least one city I knew of first hand, allowed contractors to hire the Testing/Inspection Agency with no requirement for the Agency to send duplicate reports to the City. The contractor then "screened out" any reports he did not want the City to see!

Bottom line: as with so many of society's ills, it's not so much a problem of not enough laws, but the enforcement of them!

Over the years, I've seen a general trend toward greater attention to quality control. I believe the two major influences that account for this are: (1) dramatic publicized construction failures (various causes, including poor quality control/inspection, earthquakes, hurricanes, etc.); (2) liability/litigation issues.

There remain many challenges to our industry. Staying current with all the new materials and methods is a full-time job. Just keeping up with

all the new concrete admixtures alone is a giant assignment. Aggregate shortages lead to many substitutions at any given plant on any particular day. Cement and/or fly-ash shortages and their importation from multiple sources further complicate concrete mixture design, not to mention their effect on non-uniform test results. The trend toward central-mix batch plants has been a positive development (when computerized systems are working). In structural steel, we have new steels, electrodes, processes, etc., many from foreign sources.

One of our earlier frustrations was dealing with the issue of project drawings and specs not keeping up with code and ASTM designation changes (i.e. ASTM A-7 to A-36). Coincidentally, getting a set of approved plans and specs for the T & I firm continues to be a major problem. And then there's the issue of whether or not shop drawings can be utilized by the special inspector; some engineers make it a requirement, while others say absolutely not.

Over the years, I accumulated a collection of articles (two three-inch thick binders) on various construction failures, taken from various publications such as ENR, ASCE, ACI, and miscellaneous news media sources. This became my "Why Inspect" file, to be used whenever an owner, architect, or engineer would ask, "Why do we have to provide all this inspection?" The following example helps to explain this more-or-less continuous problem. A major local electronics firm with its in-house construction services department chose to talk all concerned (including building official) into waiving shop welding inspection on a substantial 3-story steel framed building. During erection, which included field welding, our welding inspector became suspicious of the apparently "too perfect" shop



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## CCTIA Reminiscence: A Historical Annotation Continued

By Merlyn Isaak

few welds and found they had been puttied! Bottom line—nearly all the shop welds had to be removed and re-welded.

I could go on and on with stories like this, but the newsletter would get

out of hand size-wise. Suffice it to say, it's been, for the most part, a very satisfying career, as we provide safe structures for all the users, the public, and owners.

## Mandatory AWS CWI Certification in Title 24

By Cliff Craig, (Dynamic Consultants, Inc., Vice president Technical Operations)

One of industry's greatest burdens is once again being proposed by the Division of State Architect for adoption in the new California Building Code based on the 2006 IBC. If adopted, it would reaffirm a dangerous precedent imposed on our industry.

The proposed Section 1704A.3.1.1 Structural Steel Welding, Paragraph 2 regarding "minimum requirements ... of the inspector" mandates AWS certification without any other choice. The IBC currently states, "The basis for welding inspector qualification shall be AWS D1.1." The basis means the qualifications should be based on general requirements of AWS D1.1 (i.e., experience, examination, hands on performance evaluation, etc.). These qualifying elements can be fulfilled by methods other than CWI certification. Even AWS D1.1 recognizes that an individual that is not a CWI can be competent to perform inspection of the work provided they have been properly trained and have sufficient experience as an inspector.

Years ago, DSA gave AWS an exclusive on the certification market, without regard to the objections from many in our industry that it was inappropriate and constrictive. The same concerns the industry voiced then still exist. The AWS cert does not address many of the elements important for a special inspector. Some of the significant arguments were, and still are, that AWS examination does not include any plan reading, building code special inspector responsibilities, material ID, high strength bolting, or rebar welding. You can qualify for an AWS CWI without any inspection experience, by simply having welding experience. You can also get one using a number of welding codes that do not include AWS D1.1. By contrast, the ICC (formerly ICBO) certification exam for Structural Steel and Welding, while slightly less technical, includes the other elements that are important parts of the duties and responsibilities of special inspectors. Why is this issue so important to our industry? When DSA mandated AWS certification, the cost was about \$300.

No re-certification was required (or necessary). Now, the AWS CWI credential costs \$950. Renewal is required every 3 years for \$645 (no exam, no code, just a certificate and a card). Then, every 9 years, AWS requires re-certification for \$795. The inspector must re-take the performance exam. This performance exam requires inspection of the same plastic weld coupons he/she looked at 9 years ago. Frankly, there is nothing changing in D1.1 that a working welding inspector is not aware of already. Nothing prevents AWS from continuing to increase the price anytime, and/or requiring more frequent re-certification. As a comparison, the ICC steel welding exam is currently \$200 and can be renewed every three years for \$60 (or \$20 with multiple ICC certifications). The ACI certification for a field testing technician is now \$255, and is good for 5 years.

The bottom line is no single certification program will satisfy all the requirements that might be imposed on our inspectors. Certification is not assurance that inspections will be performed significantly better. It is dangerous to establish one certifying body with a monopoly, eliminating all options to utilize other programs. ASTM committees are debating this same issue and are now in fact removing any references to specific certification programs. Instead, it is better to identify the specific qualifications required to meet some minimum level of competency (i.e. amount of experience, examination criteria).

The AWS CWI can be an appropriate qualification; however, it should not be the sole certification method available to our industry. There should be allowances to accept other programs that can demonstrate meeting the specified requirements. The IBC language is appropriate and should remain unchanged in the adoption of Title 24: "The basis for welding inspector qualification shall be AWS D1.1."