



MAY 2005

NEWSLETTER

DUAL ACCREDITATION REQUIRED FOR ONTARIO LABORATORIES.

CCIL will continue to advocate to all regulatory bodies against any kind of requirement for dual accreditation. Unfortunately, environmental laboratories are currently facing a situation in Ontario that requires them to have two separate accreditations – one by SCC and one by CAEAL. Those laboratories that are conducting drinking water analysis must obtain their laboratory audits by CAEAL with the final approval of accreditation by the SCC. This is the original partnership agreement that was carried over only for drinking water parameters in Ontario.

For laboratories doing testing to support the nutrient management and Brownfield's programs in Ontario, the Ontario MOE will not recognize a CAEAL accreditation until CAEAL has obtained their full recognition by APLAC (Asia Pacific Laboratory Accreditation Cooperation) – which is expected in November of 2005. This then forces those labs to obtain SCC accreditation if they do work in response to these two regulations. If labs are already using SCC for most of their accreditations, they must still have a CAEAL audit for their drinking water work.

CCIL will continue to argue that this situation is both impractical and costly and should not be necessary.

ACCREDITATION ENVIRONMENTAL LABORATORIES – AN UPDATE

Since the termination of the CAEAL/SCC partnership (in January 2005), the situation has developed pretty much as we had predicted. CAEAL is in the final stages of becoming a fully recognized accreditation body. It is now a full member in APLAC (Asia Pacific Laboratory Accreditation Cooperation) and expects to have full APLAC recognition (which requires an audit) by November of 2005. CAEAL now fully accredits 144 Canadian environmental labs compared to 174 that had been accredited under the CAEAL/SCC partnership.

SCC has been gearing up to service those labs that wish to maintain an SCC accreditation rather than a CAEAL accreditation.

From a CCIL standpoint, we are doing our best to ensure that laboratories are free to choose between these two providers – or even others if the case may be. Thus we are advocating to all regulatory bodies to specify accreditation to ISO 17025 rather than naming an accreditation agency in a regulatory document. To this end, Allan Maynard prepared a position paper which should be published in the May edition of Environmental Science and Engineering (ES&E).

Unfortunately we have, to date been unsuccessful in preventing a situation in



**ACCREDITATION ENVIRONMENTAL
LABORATORIES – AN UPDATE (CONT'D)**

Ontario that require labs to be accredited by both SCC and CAEAL (see related article).

We ask that all of our members keep the association current about any pending issues that could develop that are not in line with CCIL's position.

**FEES FOR NUCLEAR DENSITY
GAUGES QUESTIONED**

Allan Maynard, CCIL's executive director has written a letter to Dr. Ramiz Jammal, the Director General of the Directorate of Nuclear Substance Regulation within the Canadian Nuclear Safety Commission (CNSC). The letter pointed out CCIL's concerns with both the fee structure (100% fee increase over the past 2 years) and the consistency of audits (which will eventually affect a laboratory's fees. CCIL feels that the fees are high in relation to the auditing effort. We are hoping to have a meeting with some key people within CNSC before the summer.

**JUNE NATIONAL BOARD MEETING
– YOUR INPUT REQUESTED**

Two full days of meetings have been scheduled for the next National Board meeting to be held mid-June.

A full day is always required to discuss the current affairs of your association. One half day has been set aside to discuss the **Strategic Plan** for CCIL for

the next three to five year and we rely on our membership to help us out with this endeavour. The membership is the heart and soul of our Association and your input would be greatly appreciated. To date only a handful of members has taken the time to write but we do hope that by **May 18th**, we will have received several more comments/submissions. Please know that Francine guarantees your anonymity. If there are areas on which we should be focussing, or if there are issues that would be better taken over by your Association, please bring them to our attention. If you have any comments, critical or favourable, we welcome them all.

Another half day will be set aside to meet with our existing members as well as prospective members and with govt reps in an attempt to promote our certification programs.

NEW MEMBERS

A solo membership drive by our Executive Director, Allan Maynard, resulted in CCIL's numbers increasing. The National Board of Directors and the Divisions are extremely happy to welcome the following new corporate members.

CANTEST LTD.

4606 Canada Way
Burnaby, British Columbia V5G 1K5
Telephone: (604) 734-7276
Fax: (604) 731-2386
Toll Free: 1-800-665-8566
E-Mail : denns@cantest.com
URL : www.cantest.com
Contact Person: Don Enns



NEW MEMBERS (CONT'D)

LEVELTON ANALYTICAL SERVICES

150-12791 Clarke Place, Richmond,
B.C. V6V 2H9
Telephone: 604-207-5123
Fax: (604) 278-1042
E-Mail: Bmussato@levelton.com
URL: www.levelton.com
Contact person: Brent Mussato

The National Board of Directors and the Divisions are equally happy to welcome the following associate members:

AGILENT TECHNOLOGIES CANADA INC.

2250 boul.. Alfred-Nobel, Saint-Laurent,
QC H4S 2C9
Telephone: (514) 832-2784
Fax: (514) 832-2549
E-mail: patrick_zimanyi@agilent.com
URL : www.agilent.com
Contact person: Patrick Zimanyi

ANACHEMIA SCIENCE

255 Norman, Lachine, QC H8R 1A3
Telephone: (780) 451-0665
Fax: (780) 452-2478
E-Mail: chaley@anachemia.com
URL : www.anachemia.com
Contact person: Carol Haley

FISHER SCIENTIFIC

112 Colonnade Road, Ottawa K2E 7L9
Telephone: (613) 228-6278
Fax: (613) 226-1296
E-Mail: jtourlas@fishersci.ca
URL : www.fishersci.ca
Contact person: John Tourlas

We strongly encourage all our members to use each other's services.

SPRING DIVISION MEETINGS

The Environmental Division's first Spring Division meeting held on April 11th in Toronto proved to be a worthwhile endeavour and one that may be repeated, if the membership wishes so. When approached about this new initiative, Rob Deverall immediately knew who should be invited to talk to the membership. With CAEAL and SCC's dissolution of their partnership being of serious concern to all division members, Rob contacted, and was able to get a commitment from Rick Wilson of CAEAL, Pat Paladino of SCC and John Lynch of the Ontario MOE. All three came in with presentations that gave the participating members an insight on what is to come, what can be expected and perhaps a better picture of the new situation facing all the testing labs.

Participating at this meeting were nineteen (19) Environmental Corporate members, five (5) Associate members, 7 invited guests from the private and public sector. As the Geotechnical Division members were also having their own regular Spring Division meeting in the afternoon, 13 of their members also joined the division; added to these numbers were also one of CCIL's two honorary members and 4 of CCIL' staff. This meeting by all accounts, was a resounding success and we thank all who participated in making this morning the success that it was.

The Geotechnical Division's decision to move their own meeting in the afternoon may have come at a price. The regularly extremely well attended morning meeting saw very few being members able to attend the afternoon



SPRING DIVISION MEETINGS (CONT'D)

session. Invited guests, Ray Mantha and Guy Cautillo of the Ministry of Transportation nevertheless made an excellent presentation, well received by those present.

The regular business meeting saw reports being presented and at the end of the afternoon session, Anne Holt of the Kitchener location of Peto MacCallum Ltd., was the recipient of a token gift as well as flowers thanking her for her dedicated and outstanding service to the Division.

In view of the low numbers at the afternoon meeting, the Chairman of the Division, Rob Frenette has made his intention known that he plans on reverting back to the morning sessions for any of their meetings so as to not repeat this year's low attendance.

The mid-day lunch served to over 55 guests was crowned by a presentation made by Dr. Paul Dennis, Player Development Coach for the Toronto Maple Leafs. Dr Dennis gave a very interesting talk about the importance of character in the leadership of today. The best leaders have character and are driven to succeed. They do succeed because they inspire others to follow their dreams and goals. This was an inspiring message for all who attended.

RAY MANTHA AND GUY CAUTILLO'S PRESENTATION (ABBREVIATED CCIL VERSION) AT CCIL SPRING DIVISION – APRIL 11TH, 2005

We were pleased to have Ray Mantha and Guy Cautillo make a presentation at our April 11th spring meeting. Here is a brief version of their combined presentation.

Consultant Hiring Process and Area Testing Contracts

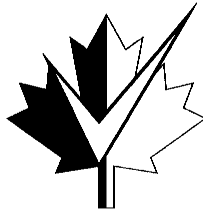
Information can be obtained at <https://www.raqsa.mto.gov.on.ca>

Consultant Performance Rating (CPR) Originally one corporate rating now split into 5:

- Planning
- Engineering
- Construction Administration
- Area Materials Testing &
- Small Values Assignments of \$25000 or less

Changes:

- Referee Testing for Hot Mix Asphalt and Specialized Concrete Testing will be removed from RAQS
- Laboratories that are already approved for "Soil & Rock – High Complexity Testing" will automatically qualify
- Laboratories approved for "concrete – Specialized Concrete Testing" will NOT automatically qualify for the specialities because they were not previously evaluated for the new specialities.



MTO PRESENTATION (CONT'D)

- Any questions should be directed to Saeed Choudhary by contacting him at

Tel. (905) 704-2238 or
Saeed.Choudhary@mto.gov.on.ca

MERO Lab Study

- Completed Fall 2004
- Confirmed that MTO needs a testing function – testing function primarily of Quality Management and research

How will the Study affect CCIL?

- Depending on delivery model selected, there may be changes to the informal partnership MTO has with CCIL and with the range of services that it acquires from CCIL members.

Regulation 903

- This is MOE's water well regulation under the Ontario Water Resources Act
- Depending on the project type/activity, amended Reg. 903 will require:
 - Licensing of drillers
 - Well capping/venting
 - Reporting/tagging
 - Abandonment

Key Clarifications:

- Geotechnical test holes have to be supervised by licensed well technician
- Geotechnical test holes no more than 3m deep are exempt provided that they are not

located in a contaminated area
(the typical highway environmental is not considered to be a contaminated area)

New Bid Model for Geotechnical Investigations

- MTO will provide detailed scope of investigation work to “level the playing field” including:
 - Type of equipment and depth ranges i.e. 0-3 m, 3-6 m, etc.
 - Type and number of lab tests required
- Consultant bids lump sum price based on scope provided for exploration holes and laboratory tests
- Work will be paid by unit measure
- Costs includes field technician time but not professional time
- Costs carried forward as a lump sum of the RFP governing the remainder of the project (an RFQ within a RFP)
- Provision for extra work at the unit price submitted by consultant
- Work was less than that provided in the scope, the consultant would return the unused \$ to MTO. We would only pay for the fieldwork actually conducted.
- Consultant responsible for locating and advancing sufficient explorations in support of the project
- Consultant submits weekly status report



MTO PRESENTATION (CONT'D)

- Consultant paid for actual field work completed
- Actual work < scope provided = MTO credit
- Actual work > scope provided = scope change request

Superpave

- More than 50% of projects awarded in 2004 were Superpave
- Only 3 problem projects – all due to low AC.
- In 2005 ALL Capital Construction Project awarded will be Superpave
- In 2006 all Maintenance Contract will be Superpave
- Will see a mix because of carryover projects

Where are we going in the Materials area?

- Current 2 general QC/QA approaches used
- 1) Contractor does Quality Control material testing MTO acceptance tests used to set penalty/bonus.
- Most aggregates tests
- 2)C Contractor does Quality Control material testing MTO uses contractor QC tests to set penalty/bonus
- Most Asphalt tests
- Rationalize QC/QA approaches:
- Specs were developed at the time and reflect the knowledge of the day. Some variability has crept in.

MTO is continuing to work with ORBA and other stakeholders to use a common approach for all material.

- In the long run, will move towards Performance Based Specifications (PBS's) Eg. Ride
- Currently very few PBS's are available Research and consultation required

○ **Future / Continuing role for CCIL – MERO Perspective**

- CCIL to continue to be a key service provider in certification and quality management of testing
 - CCIL will be consulted in relevant specification development and policy changes
 - MTO will continue to work with CCIL committees to enhance Ontario's testing quality and on issues of common concern
 - Probably in longer term should replace all RAQS testing with purely a certification program.

**PUBLICATION OF ISO/IEC
17025:2005 DOCUMENT NOW
COMPLETE**

CCIL members will be interested to know that the new revision of the ISO/IEC 17025 will be published on May 15th, 2005. Discussion about how this document would be revised has gone on for some time now and



**PUBLICATION OF ISO/IEC 17025:2005
DOCUMENT NOW COMPLETE (CONT'D)**

the private sector has been well represented by David Stranger whom we thank.

The main purpose of the revision was to align the ISO/IEC 17025 document with the ISO 9001 document. The final upshot of all of this is that laboratories may choose to be accredited to ISO/IEC 17025 or be certified to ISO 9001, or both, but the processes of accreditation and certification would be two separate actions. No longer can a laboratory be accredited to ISO/IEC 17025 and claim it automatically meets the requirements of ISO 9001. However, the 17025 document has improved requirements for management systems to ensure it is generally compatible with ISO 9001.

The International Laboratory Accreditation Cooperation (ILAC) has set a 2 year transition period for labs to comply with the new standard. There are no essential changes to technical requirements – new are some explicit requirement for continual improvement of management systems and communications with customers.

A four page paper is available from Francine for those interested.

Canadian Council
of Independent
Laboratories



Conseil canadien
des laboratoires
indépendants



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info@titrationplus.com, www.titrationplus.com

Residual Chlorine by Sodium Thiosulfate Titration

Man-Tech Associates, the manufacturer of the PC-Titrate family of products has introduced a new application note (#069W) for residual chlorine analysis. This method conforms to EPA Method #330.0 and Standard Methods 4500-Cl B.

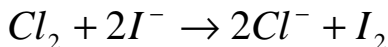
Introduction:

Chlorine is a common substance that is ubiquitous in our daily lives. It is used to ensure safe drinking water and, as an oxidizing agent and in substitution, to make a variety of everyday products. Examples of these products are: synthetic rubber, paper products, dyes, textiles, medicines, insecticides, foodstuffs, solvents, paints, plastics, chemicals, and cleaning products.

In water systems, chlorine forms disinfection by-products including trihalomethanes such as chloroform (CHCl₃), haloacetic acids, and a mixture of other dangerous chemicals when it reacts with the natural organic matter present in every water system. Trihalomethane levels are commonly measured and are found to be higher at locations that are far from water treatment facilities; they are also higher overall during the summer months. It is therefore critical that chlorine levels be measured in the environment and in our water supply, to minimize the environmental impact and ensure safe drinking water.

Free chlorine consists of aqueous molecular chlorine, hypochlorous acid, and hypochlorite. Combined chlorine is formed from a reaction with ammonia and nitrogen compounds, and includes chloramines such as monochloramine, dichloramine, and nitrogen trichloride. The sodium thiosulfate titration method does not distinguish between free and combined chlorine.

The chemical reaction below demonstrates the relationship between chlorine and the measured iodine.



The sodium thiosulfate titration method is a direct titration of the iodine produced in the reaction using a sodium thiosulfate titrant.

Sample Analysis

The following graph shows a reading for a 5.0 ppm sample using the redox potentiometric titration method.

Volume at endpoint: 0.678mL



Reported concentration: 5.013 ppm
Sodium Thiosulphate Titration



Conclusion

The application note shows that measuring residual chlorine by sodium thiosulfate titration is a simple, reliable and precise method. This method yields better detection limits than iodometric back titration, is less complicated than amperometric methods, and does not require the calibration of an ion-selective electrode.

Please contact Bruce Joy at bjoy@mandel.ca or 1-800-396-8240 for a copy of this application note.