



RAE ENGINEERING
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RAENews



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OUR VALUES

SAFETY

Protecting people, assets, and the environment

INTEGRITY

Adhering to ethical standards and honouring relationships and our commitments

QUALITY

Meeting or exceeding client expectations and legislative requirements

PERSONNEL

Treating our personnel with respect and recognizing their skills, abilities, and ethics by creating a challenging and satisfying work environment

Life Inside and Outside the Coatings Lab

Linda Gray, Senior Materials Specialist, has been working for RAE Engineering since February 2008, when the company bought the coatings laboratory and took over its equipment and staff. The lab's focus is on industrial protective coatings, where Linda and her colleagues provide comprehensive services in coating performance evaluation, failure analysis, physical testing, chemical analysis, field testing, and QA/QC.

"I really enjoy working with clients," Linda says, "And I also like the technical aspects of the job. The opportunity to work with clients on some of the challenges facing the coatings industry is exciting."

Those challenges include selecting and evaluating protective coatings to handle new process environments. While most of their work is focused in the oilfield, last year, Linda and three colleagues wrote a paper after doing extensive testing for a client in the municipal wastewater industry. She explains, "The client wanted to develop a new coating, and we worked with them as they experimented with their formulation. We developed a test chamber and test method which simulated key chemical parameters in the wastewater environment. Our client then used it to develop their products."

The paper was published in the *Journal of Protective Coatings and Linings*, and went on to win an Editor's Award earlier this year.

"We both extend and complement the inspection work in the rest of the company..."

Linda is also very active in NACE (National Association of Corrosion Engineers) International, where she's presented many papers, held positions on numerous committees over the years, and received the Distinguished Service Award in 2008. In February last year, Linda was the Program Chair on the organizing committee for the NACE International Northern Area Western Conference, which rotates through Edmonton every five to six years. Initially, Linda says, she joined NACE to find out what the concerns were in industry, and to meet other people also working on corrosion problems.

About the lab's role within RAE Engineering, Linda says, "We both extend and complement the inspection work in the rest of the company - protective coatings are regularly used in most of the equipment being inspected, and so we provide technical input and engineering advice on coating selection and assist in failures."

While she is certainly very involved in what's happening inside the lab, Linda also appreciates life outside the lab. She's taking some time off now and then to travel and pursue some of her other interests. As she says, "The arrangement with RAE is good because it allows me to have a nice balance between my career and my personal interests."

COATINGS LAB

As the summer comes to an end we say goodbye to our two students, Elresa Roberts and Patrick Lysz. During their four months at the RAE Coatings Laboratory, both Elresa and Patrick got the opportunity to work with pipe coatings, tank linings, and many other types of coatings.

Elresa's experience with the CSA Z245.20-06 flexibility test was very helpful in the development of our new flexibility tester, which should be fully operational next month. Patrick spent a large portion of his time this summer putting together some of our new custom-built test equipment, including immersion tanks for hot immersion service in acid, base, and produced water. He also had the opportunity to work on several failure investigations. We wish both Elresa and Patrick the very best with their studies and are excited for their return next summer.



Elresa also brought a new addition to the Coatings Laboratory named "RAE RAE". Little RAE RAE is a blue beta fish. He enjoys eating fish food, sleeping in his beaker, and observing client meetings from his fishbowl near the conference table.

President's Message

While the summer was business as usual, it was also a time for staff members to take a break. Some went camping or visiting family in Toronto (Perry), the adventurers went fishing on the west coast (Al) or tried to circumvent Alaska and the NWT (Adam), and the mature couple tried to conquer Europe with food and wine (Hennie and Barbara). I'm sure they have some interesting stories to tell.

And to those who carried the load while others took a break, thank you for making sure our clients received the service we promise. It is also a pleasure to welcome the new personnel who have joined the RAE team in the last three months. We are looking forward to working with them.

In July, RAE had its AGM. The financial overview presented by the financial department showed a steady revenue growth. Our outlook for the 2010 fiscal year is good despite the general downturn in the economy. I can see the success we had in the first six months of 2009 was only possible because of the contribution every member of RAE makes daily. Each successful day is the beginning of the next successful project, and each report delivered is a sign of commitment and dedication.

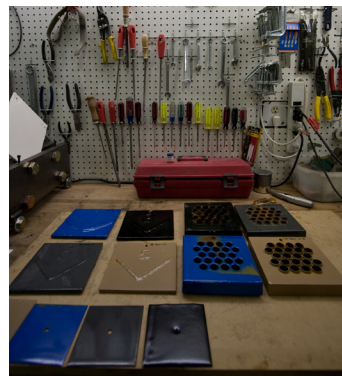
Finally, we have some exciting news from our Calgary office. In February, we started with the first cautious step when Adam moved to Calgary. The office is steadily growing, and we are taking our first major step this fall when RAE moves into its new office on 7th Avenue SW in the Centennial Building. We look forward to seeing you there.

Izak Roux, M.Eng. P. Eng
President and Technical Manager

Behind the Scenes in the Coatings Lab



The Coatings Lab processes samples to determine the cause of coating failures and identifies remedies to avoid future failures. We evaluate the corrosion of prospective coatings under laboratory simulated process conditions in rapid, economical tests.



ENGINEERING

The engineering section is always open for challenges and exploring ways to solve new problems. One of the interesting cases we dealt with in the past three months was a small leak on a piping system. Soon this developed in a major metallurgical investigation with Shawn providing valuable technical leadership in the materials lab while Rajiv and his team (Jason, Joseph and Graeme) did the stress analysis. This investigation also required inputs from Cobus and his team of field inspectors. A small leak became a total RAE team effort: we did a root cause analysis and provided field and construction support to the client during reconstruction.

This engineering tasks demonstrate the value of synergy - if we combine the RAE resources, it is possible to not only troubleshoot a problem, but also to help the client in finding a cost-effective and timely solution.

MATERIALS LAB

It's business as usual in the lab. Except for Michael Durand, all our our summer students have returned to school. Mike has worked in the metals lab for the past few months and has been learning about lab procedures and failure investigations. He's continuing in the lab until January before going back to NAIT. The latest new equipment to the lab is a Nikon microscope with a digital image analysis system. This will improve process time and quality when we analyze samples.

REMS Systems Update: 60,000 and Counting

The RAE Equipment Management System, known as **REMS**, has been growing with the company.

REMS, our custom-built database, has been around for a quite a few years now. As a comprehensive online equipment data management service, REMS contains all equipment data that RAE Engineering retains on behalf of Owner Inspection Program Clients. When we started the program, we were thinking about convenience for our clients. And the positive response we have received in the past few years confirms that having 24/7 access to data is a feature our clients prefer. It has also encouraged us to expand the system.

As part of the total asset integrity service RAE Engineering promises, we are currently developing REMS into a one-stop library for all our clients' assets and records.

At the moment, the database holds just over 60,000 pieces of client equipment, including pressure vessels, tanks, PSVs, and pipeline information. Static data reports (like inventory, inspection history and summaries, and nonconformance reports) are fully exportable to Microsoft Excel, making it easy to transfer data to clients who do not have REMS installed on their system. REMS also allows clients to do inspection planning or to see which vessels, tanks, and PSVs are due for inspection each year.

WHAT'S NEW?

We have added some new features and modules to the database over the past year, mainly to create a more comprehensive service for our personnel and our clients.

- All client manuals (PEIM, OUP, Tank and Pipeline) are now available online so it can be accessed when and wherever our clients are in the world.
- Additional vessel, pipeline, and tank inspection documentation (data reports, P&IDs, UT measurements, vessel repair documentation) can also be uploaded online in PDF format, so clients can view the documents.
- Any additional documents (failure analysis, engineering assessments, engineering reports, etc.) can be uploaded as general documents for clients to view and print.

Another addition to REMS, which has expanded our inspection capabilities in the field, is REMS Field Reporting (RFR). RFR has allowed us to move away from a paper-based inspection reporting system to a faster digital on-site system that saves time and creates better inspection reports. These days, when inspectors return from doing inspections, they upload reports directly into REMS. This unique RAE custom-built system was well-received by our inspection personnel and the company as a whole. We are proud to say that it has been working well since its inception a little over a year ago.

RAE Engineering recognizes that the systems we use every day need to grow with the company, and we're excited to keep expanding REMS in the future so that it goes on meeting our clients' needs and exceeding their expectations.



RAE Engineering's [website](#) is a good source of information, but we are always willing to answer your questions directly.

If you'd like to find out more about REMS, please contact Christo Rust.

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NEWSLETTER FEEDBACK

We want to know what you think about this letter.

Send your questions, comments, and ideas to news@raeengineering.ca

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ABSA Annual Code Update Seminar

The ABSA (Alberta Boilers Safety Association) Annual Update Seminar provides an overview of the effects of the Code changes on Designers, Quality Control Inspectors, and other users of the Codes.

This is a one-day seminar and this years scheduled dates are October 13th in Nisku and October 15th in Calgary.

For more information, please contact Cynthia Formaniuk at 780-437-9100 Ext 3325 or visit www.absa.ca.

Source: *The Pressure News*, ABSA's newsletter (Volume 14, Issue 2, June 2009)

Industry Updates

ABSA INFORMATION BULLETINS

[Bulletin IB09-006](#) Unfinished Projects: A Heads-up on Documentation Requirements (Released: July 30, 2009)

For more information, please visit www.absa.ca.

ERCB INFORMATION BULLETINS

[Bulletin 2009-30](#) Revised Draft Directive 020: Well Abandonment Available on ERCB Web Site for Stakeholder Comment (Released: August 26, 2009)

[Bulletin 2009-29](#) Service Disruption to Energy Resources Conservation Board Web Site and Systems (Released: August 14, 2009)

[Bulletin 2009-28](#) Revised Directive 027: Shallow Fracturing Operations—Restricted Operations Issued (Released: August 14, 2009)

[Bulletin 2009-27](#) Adjustment to 2009 Coal Mines Sector Administration Fees (Released: August 4, 2009)

[Bulletin 2009-26](#) Requirements on Waste Transport by Pipeline and Waste Tracking (Released: July 31, 2009)

[Bulletin 2009-25](#) Invitation for Comment: Updates to Storage Requirements for the Upstream Petroleum Industry—Discussion Document on Directive 055 (Released: July 30, 2009)

[Bulletin 2009-24](#) Invitation for Feedback on Draft Revised Edition of Directive 062: Coalbed Methane Control Well Requirements and Related Matters (Released: July 16, 2009)

[Bulletin 2009-23](#) Shale Gas Development - Definition of Shale and Identification of Geological Strata (Released: July 9, 2009)

For more information, please visit www.ercb.ca.