



NEWS

The Newsletter of the Association of the Chemical Profession of Alberta

Fall 2002 ISSUE

In this issue of the Newsletter we continue with the Ethics Corner and the Bio Corner which features a new board member, Robert Taylor. An article by Heather Dettman first published in InfoChem for the CIC/CSChE is also included.

Ethics Corner

This article, from the March 2002 issue, is the second in a series of articles that the Newsletter is re-printing with permission from EM magazine published by the Air & Waste Management Association.

One of the issues of importance to professionals regardless of our discipline is that of ethics. We hope that this series will help to clarify these issues that we may face in our careers through the discussion of practical examples.

From the President

Once again it is fall and the year's activities get back into high gear. I would like to thank all those who attended the AGM in June and participated in the discussions at the meeting and

the social and networking time that followed the AGM.

I would like to take this opportunity to thank Bob Swingle for his service as a member of the Board of Directors of ACPA for the last several years. Bob chose not to let his name stand for re-election this past year. The good news is that Bob has continued his commitment as Editor of the ACPA Newsletter. This is big commitment of time and effort and involves much nagging of people like me to get the items necessary to put out a newsletter. This brings to mind another thought. If any of you have articles or items you think would be suitable to be published in the newsletter, I am sure that Bob would be interested in reviewing them for inclusion in future issues. The newsletter is typically published four times a year, September-October, December, February and April-May.

I would like to welcome Robert Taylor to the ACPA Board. He has become the newest Association member to join the Board of Directors. Bob moved back to Red Deer about a year and half ago from Halliburton's Oklahoma offices.

One of the requirements of the Professional and Occupational

Associations Registration Act (POARA) is that the Board of Directors of the Association have public members on it. The Board nominates some candidates and submits resumes to the Minister, Human Resources and Employment. The Minister then selects from the proposed candidates the number of members required by the legislation for the Board.

I am happy to announce that the Honorable Clint Dunford, Minister, Human Resources and Employment has selected Mr. Brent Cook to be the public member to the Board of ACPA. Brent is a former member of ACPA who has pursued a couple of different career paths in the last several years such as law and accounting. The Board is confident that Brent's wide variety of experience will provide valuable insights to our decision making as well as ensuring that our decisions are fair and equitable.

By now those of you who are full members of the Association have received your membership certificates and stamps. As you go about framing and hanging your membership certificate in a prominent place, take the time to go the website, pchem.ca, and review our Code of Ethics and the Regulation. It is important that when we use the title

“Professional Chemist” that we conduct ourselves in a professional manner. If you have not completed the upgrading of your “P” (provisional) membership to the “M” (member) category, I would suggest that you do it soon. Under the Professional Chemists Regulation, only those who are full members of the Association are entitled to use the title “Professional Chemist.”

The Professional Association Task Force continues to meet and progress toward its objective of obtaining umbrella legislation for the regulation of technical professionals in the Province of Alberta. On August 12, a presentation was made to the Standing Policy Committee on Learning and Employment. The presentation outlined the objectives and the reasoning behind them to the Committee, which consists of 3 cabinet ministers and about 9 MLA’s. The Task Force has undertaken the development of a position and strategy paper and is working to develop a working draft to be the framework for the proposed umbrella legislation. More information on these items willing be forthcoming in the next several months. This is relatively long-term project that has many hurdles to clear before it comes into being.

As always the Board and I welcome your input and comments on the Association. We can be reached through the website pchem.ca.

Don White
President

Bio Corner

Robert Taylor

Robert Taylor received his B.Sc. in Chemistry from the

University of Calgary. He worked for Pacific Petroleum in 1978-1979, conducting research on the feasibility of Air Blowing of Asphalt to upgrade performance. Between 1979-1981, Robert was laboratory manager for Canadian Fracmaster’s first laboratory. In 1981-1982 he established the first lab for Canan Well Service and was its first laboratory manager. Robert worked for Nowsco Well Service from 1982-1997, where he was Stimulation Coordinator and Assistant Lab Manager and was responsible for building and leading strong technical teams capable of supporting all service lines and developing competitive chemical technology. During this time he obtained one patent and published two papers. He obtained international experience in Pakistan and Brazil and then joined Halliburton Energy Services in May, 1997. He has been responsible for Research and Development of Fracturing, Acidizing and Drilling-Fluid Systems and has been granted one patent with five additional patents in various stages of filing. He worked at Halliburton’s Duncan, Oklahoma facility until April 2002 when he transferred to the Red Deer, Alberta facility.

Personals

The following list is a list of members who seem to have gone missing. If you are one or know one could you please forward updated information regarding address and e-mail to Trent_Parks@URSCorp.com.

Lost Members

Dr. Michael K. Peters
Mr. Jody Hoshowski
Mr. Paul C. Cheung
Mr. Laurence E. Wolfe
Mr. Peter L. Fredeen
Mrs. Elizabeth T. Ancheta
Dr. John R. Dean
Dr. Read T. Seidner

Please welcome the following new members to the Association.

New Members

Mr. Dion Rock
Mr. Robert W. Tower
Mr. James E. Atwater
Ms. J. Catherine Evans
Mr. John P. Schelske
Mr. Rob G. Lauman

From the CIC/CSCHE Heather Dettman

CIC/CSCHE Short Course
2002&Vendor Showcase –
“Data for Results”

The Edmonton CIC and CSCHE Local Executive Committees together organized a two-day Short Course last June (11 & 12th), in Edmonton. The course provided a comprehensive overview of how to solve plant and field problems through appropriately collected, handled and interpreted data. During the first day, sample collection considerations and data communication, transport and storage methods were described. Topics covered the second day included factorial design of experimental protocol, statistical and chemometric data interpretation, and the use of data for process control. A group of experts were chosen to cover each topic including:
Ron Kratochvil: Professor Emeritus in the Department of Chemistry at the University of Alberta; discussed how to

ensure that test portions taken for chemical analysis are fully representative of a plant or field sample.

Neil Warrender: Co-founder of DNX Inc., a Calgary-based laboratory specializing in materials analysis for the oil and gas industry; explored the relationship between the elegant presentation of technical information and customer satisfaction.

Eb Mueller: Research Associate in the Research Department of Syncrude Canada Ltd.; discussed the role played by Fieldbus instrumentation protocol in delivering information from the remote process to the plant database.

Kerry Cox: Analytical Laboratory Supervisor at Cobalt Refinery Company; described some of Corefco laboratory's experiences with LIMS in an industrial setting.

Peter Crickmore: Environmental and Engineering Consultant with the Centre for Environmental Investigations Inc.; gave a practical introduction to the tools available in the "Factorial Design" toolkit.

Jim Kresta: Senior Research Engineer in the Research Department of Syncrude Canada Ltd.; illustrated how objective measures of data validity are critical to prevent our data, graphs and own intuition from severely biasing our interpretation and modeling of results.

Wally Friesen: Research Scientist at the CANMET Energy Technology Centre – Devon; outlined several methods of chemometric

analysis and illustrated their application to on-line monitoring.

Dave Shook: Senior Technical Officer with Matrikon Consulting; presented an introduction to statistical process control for the process industries, including common-cause and special-cause variation, and measures of process capability and performance.

Attendance at the Short Course included 19 participants and 5 vendors. Comments on the course have been good including one industrial participant having made use of course materials at their plant over the summer.

Copies of the Short Course presentation materials are available for \$100 each (GST included). For further information please contact Heather Dettman at (780) 987-8629 or hdettman@nrcan.gc.ca.

General information

The ACPA web address is : www.pchem.ca. Newsletters will be archived at this location in PDF format for easy retrieval.

From the Editors

All contributions from members to the newsletter will be welcome. Please send them to Robert Swingle at Maxxam Analytics 2021-41 Avenue N. E., Calgary, Alberta T2E 6P2 or fax them to 403-2919468. If you prefer electronic mail, address them to the internet at bswingle@cal.maxxam.ca. It

would be nice if you could send any lengthy material on disk in PC format using Microsoft Word.

Ethics Corner

BEWARE: Legal Cover-ups

This month's column deals with the subject of legal cover-ups and the notion that lawyers often view environmental professionals as technicians who should keep their data confidential and not question the significance of their findings, even if they indicate that public health might be adversely affected. First, let's look at some fundamentals.

NATURAL INSTINCTS AND LEARNED BEHAVIOR

People are inherently self-serving. From birth, a child has natural instincts for self-preservation. Indeed, selfishness is an inherent behavioral trait among toddlers. In elementary school, children often lie to avoid punishment or to obtain something that they feel would not be available to them otherwise. The degree to which children do this varies and depends on their observations and training within their family and with other social contacts. Parents have a big responsibility in this regard. The extent to which people will go to achieve a business objective often depends on their character, which is formed at an early age. Or, as I mentioned in my January column, how they have accepted Michael Josephson's "Pillars of Character," repeated here for emphasis:

1. Trustworthiness (includes honesty~ integrity, sincerity, and loyalty)
2. Respect (includes courteousness, punctuality, and the right of self-determination)
3. Responsibility (includes pursuing excellence, competence, integrity, and self-restraint)
4. Justice & Fairness (includes open-mindedness and willingness to admit error)
5. Caring (includes kindness, generosity, compassion, and avoiding harm to others)
6. Civic Virtue & Citizenship (includes social action, public service, and opposition to injustice)

These core values must be learned. Unfortunately, society often works to counter them. Many future professionals had their first business exposure by working in the fast food or retail sales industries as teen-agers, where they learned “the customer is always right” and “do what the boss says.” These learned behaviors can interfere with doing the right thing by stressing personal gain over protecting others and the environment. It can be a difficult transition from being an hourly worker to being a professional, especially an environmental professional, where keeping the client happy could conflict with the primary responsibility to protect public health. Without ethics and values training, it is unreasonable to expect a new professional to know, let alone do, the right thing all of the time.

ETHICAL DECISION-MAKING

Ethical decision-making is difficult. In fact, I believe that if the decision is not difficult, then it’s probably not a matter of ethics. Ethical decisions usually involve an element of self-sacrifice. The sacrifice might involve losing a client or even a job. For example, by refusing to do something that might harm public health or be in violation of the law, you run the risk of jeopardizing your job (which, in turn, puts your financial security at risk). Issues come up unexpectedly and even someone with the best intentions can make the wrong decision. It often takes training to even recognize an ethical dilemma. Discussing and brainstorming case studies that environmental professionals are likely to face provides the best training. Last time, I discussed a situation in which the plant staff failed to report an illegal discharge because “no one could ever prove it was from our plant.” This month’s dilemma has a different twist.

DILEMMA

You are a successful project manager in a consulting firm with national accounts with several major manufacturers. You are assigned to manage environmental compliance audits at several plants of a large company. The contract is being conducted under legal counsel and the results are to be handled to maintain privilege under the law. At one plant, you discover the release of a toxic chemical that you are certain threatens public health. You contact the lawyer who ordered the study

and report your findings. The lawyer directs you to stop work at that site, move on to another plant, and not submit your findings in writing. You point out the need to report this to the responsible agency but the lawyer reminds you of the contract, which provides for the confidentiality of the findings. You are told that the lawyer will handle any reporting and are warned that this information and your conversations are to be held confidential. “Do not discuss it with anyone!” Your attempts to learn how the lawyer will proceed on this information are met with, “It is not your concern. You do your job (i.e., investigate) and I will do mine. If I need any additional information, I will ask for it.”

You have no knowledge as to when or if the release will be reported. From your conversations with the lawyer, you know that any attempt on your part to learn further details on the disposition of the information will be met with resistance. Should you follow orders and go on to the next plant? Or should you document the findings in a formal report? (Note that the client might not pay for this action since you were ordered not to prepare it.) Whether or not the law in this state requires you to report the release, if an adverse health affect results from it, the injured parties could sue the manufacturing firm. Eventually, it will be discovered that you and your consulting firm were in possession of knowledge of the release and your firm could be included in the lawsuit. But what if your client decides to not report it?

This is an ethical dilemma and requires some difficult decision-making. If you've never contemplated such a dilemma, you might decide to follow the dictates of the lawyer. After all, lawyers are supposed to tell you what to do under the law. Besides, your firm signed a contract that says the data are confidential. You might reason, "OK, I will go the next site and not make any waves." But should you?

SUGGESTED APPROACH

After talking with the lawyer, you should realize that an ethical dilemma exists. First, you should run verification tests on the data. Next, you should consult an uninvolved colleague to review the findings before reporting the problem to management. Clearly, the confidentiality of the data must be maintained, but there is no margin for error when so much is at stake. With verification completed and checked, you should elevate the issue to your supervisors. Your company should want to ensure that some corrective action is taken to protect public health, its first obligation. Just going on to the next plant is *not* the right thing to do. The manner in which this issue would be resolved by a given consulting firm depends on the relationship of the firm's principals and their communication skills. It must be handled with confidence, diplomacy, and integrity. You should participate to the extent the client wishes, but your firm must be informed of the proceedings.

The necessary action should be taken to ensure that the

release is reported. At times like these, it is important to maintain respect and civility in all your dealings. The client's lawyer seemed dictatorial initially and you may have felt some hostility. However, after the two firms have agreed to a plan of action, you and the lawyer will be working together. Therefore, it is important that you maintain a professional attitude in dealing with the client attorney from the outset. As discussed earlier, human nature can cause some of us to react spontaneously to situations that can upset a business relationship. This kind of reaction must be avoided.

In the event that your management does not respond appropriately, you are not relieved of your responsibility to do the right thing. You must pursue the proper action in a dignified manner, keeping in mind the values of justice and fairness. Try to understand the position of those with whom you disagree. Try to convince them with facts and reason. Protecting the public from exposure to toxic pollutants is primary, but only if a more adverse impact is not created as a direct result of some action. Such a possibility could involve immediate physical and emotional stress caused by the loss of jobs when a plant is closed due to severe penalties imposed on the facility as the result of an inadvertent release by a confused employee. Compassion for families that might suffer due to plant closure is not inconsistent with doing the right thing. Each of us must establish our own values interpretation, which, in some

cases, may dictate leaving an employer because of a disagreement in values. In making a decision of this magnitude, it is important to carefully evaluate the issues involved. A formal means to evaluate a case such as the one presented here should be used. Table 1 shows my "values checklist" for such an evaluation.

So, what do you think? I welcome your comments and questions.

Table 1. Values for checklist for case study evaluation		
<i>Value</i>	<i>Issue</i>	<i>Action</i>
Trustworthiness		
Honesty	Accurate thorough reporting; interpreting the analytical data; and answering all questions. Give appropriate credit to participants in the report.	Disclose findings—do not conceal questionable details—use accurate and unrestrained dialog; involve your staff.
Integrity	The courage to report adverse findings, realize the possible consequences, and advise the client in advance of this intent.	Report findings promptly to the client and your supervisor.
Sincerity	Showing concern and appreciation for the seriousness of the issue and possible consequences.	Maintain a serious and concerned attitude in all dealings with the client.
Loyalty	Looking out for your firm's interest in this delicate position.	Inform your supervisor and accept his/her participation in the disposition.
Promise-keeping	Meeting the contractual requirements both explicit and implicit.	Maintain the confidentiality of the assessment data.
Respect		
Courteousness	Be polite and respectful in all interactions with clients, supervisors, colleagues, and subordinates.	Interact pleasantly with client's lawyer even when in disagreement.
Punctuality	A sign of respect for others is being on time for meetings, meeting program due dates, etc.	Applies across the board.
Right of self-determination	It is important to respect an individual's right to decide for themselves, even if wrong.	In dealing with the lawyer/client, understand and respect this right.
Responsibility		
Pursuit of excellence	Maintain knowledge of the latest technology and proficiency in the tools of your profession.	Insure that the released data reflects best measurement technique.
Competence	Maintain control of the situation from a technical, safety and management standpoint.	It is important for a young professional to demonstrate competence.
Integrity	This reflects the courage to do the right thing when the consequence may be adverse.	Insure that the client (or responsible party) will execute cleanup as appropriate.
Self-restraint	Consider facts/circumstances and consult with supervisor and colleagues before acting.	Elevate the situation to management and facilitate a plan of action.
Justice & Fairness		
Open-mindedness	Recognize that there are different solutions to a dilemma; willingly consider them offer to cooperate with independent assessment when the seriousness of the matter warrants it.	The lawyer may have a workable plan; try to learn and understand it. suggest client get a second opinion to verify findings.
Admit errors	Recognize when you are wrong and openly admit it; release work for checking by an independent evaluator.	If there are any anomalies in the data, reveal them immediately ask uninvolved colleague to check work.
Caring		
Kindness	Help others achieve their goals.	Offer to help the client's lawyer deal with the situation, explain risks and benefits.
Generosity	Offer free help and advice to a colleague to help solve a problem.	Offer to meet with the client on an off-the-record basis to discuss issues.

Compassion	Recognize downside to employees, families, and other stakeholders of various actions; attempt to mitigate them.	In seeking a resolution to this dilemma, keep in mind the impact on stakeholders.
Avoid harm to others	The first concern is to protect public health consistent with a concern for public welfare.	Continue to seek prompt resolution to mitigate health and welfare impacts.
<i>Civic Virtue & Citizenship</i> Social action	Publicly critique regulations that over-protect.	Not directly relevant.
Public services	Hold public office and support political issues.	Not directly relevant.
Oppose injustice	Use your expertise to quell radical control, etc.	Not directly relevant.
<p>Source: Taback, H.J. Ethics Training—An American Solution for “Doing the Right Thing.” Presented at the 90th Annual Meeting & Exhibition of the A&WMA, Toronto, Ontario, June 1997; Paper 97-MP171.01.</p>		

ACPA

APPLICATION FOR MEMBERSHIP

ASSOCIATION OF THE CHEMICAL PROFESSION OF ALBERTA
 P.O. Box 22320 Banker's Hall Calgary, Alberta T2P 4J1

Dr./Mr./Ms.	SURNAME		GIVEN NAME/INITIALS		ACPA Number
Residence Address			Employment Address		
City/Province		Postal Code	City/Province		Postal Code
Home Phone	Work Phone		FAX	E-Mail Address	

POST-SECONDARY EDUCATION: Attach extra sheet if necessary.

Note: The minimum qualification for membership in ACPA is a B.Sc. in Chemistry that is equivalent to that offered by Alberta Universities.

Dates From - To	Institution	Location	Nature of Course	Degree Obtained

CHEMISTRY CAREER EXPERIENCE: Attach extra sheet if needed.

Dates From - To	Employer	Position	Major Responsibility

DECLARATION OF APPLICANT:

I hereby certify that the foregoing statements are correct. I will provide verification for my education and career experience if and as required.	
Date	Signature

DECLARATION OF REFERENCE:

I hereby certify that the applicant is known to me, and recommend acceptance of this application.	
Name (Please print)	Signature

APPLICATION FEE:

Submit \$50.00, payable to the Association of the Chemical Profession of Alberta. Please enclose the non-refundable processing fee along with this application. Send to: The Registrar, ACPA, P.O. Box 22320 Banker's Hall, Calgary, AB, T2P 4J1.
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ASSOCIATION OF THE CHEMICAL PROFESSION OF ALBERTA (ACPA)

Historical

The necessity and desirability of establishing a legal status for chemical professionals has become apparent to many Alberta Chemists over the past few years. A recent survey of those practicing chemistry in Alberta demonstrated overwhelming support for the formation of a Professional Association. Both Ontario and Quebec have Professional Associations for chemists in their provinces. Recently biologists in Alberta have been accorded legal status as professionals.

While the nature of federal legislation precludes a national organization operating under a Dominion Charter from possessing legal recognition in provincial matters, the Province can endow upon an organization such attributes. For this reason, the ACPA was established as an Incorporated Society under the Societies Act in the Province of Alberta. This was the first step toward Professional registration. On December 19, 2001 the ACPA was registered by Order-In-Council under the Professional and Occupational Associations Registrations Act (POARA).

Why Join the ACPA?

The ACPA, as it is currently structured, is the genesis for the true Professional Association for chemistry practitioners in the Province of Alberta. Members will receive a membership card, certificate and stamp.

As a member of the ACPA, you will be helping to formalize the professionalism of chemists in Alberta. The support of Alberta chemists is necessary to demonstrate to the Province that the Association speaks for chemists and chemistry in the province. As a group, we can inform the public about chemistry, contribute to legislative and other governmental regulatory activities that affect scientific development in a way that would be difficult through individual effort.

This brochure is intended to provide information about the goals and activities of the ACPA and to invite you to join the Association.

The Professional Association

Professional Registration under the Professional and Occupational Associations Registrations Act provides a legal definition of chemistry and those practicing chemistry in Alberta. The main objectives of the Association, currently and for the future, are to promote and increase the knowledge, skills and proficiency of the members in all things relating to chemistry.

The ACPA is a legal instrument to help protect the public from malpractice in chemistry and to protect the profession from encroachment on its rights and purposes by unqualified personnel. It is endowed with the power to act to coordinate its aims and purposes, and to act in provincial matters on behalf of those it represents. The Association members may use the designation P. Chem. (Professional Chemist), or its equivalent, to identify their affiliation and professionalism.

Who Can Join?

Under the Order-In-Council establishing the Association of the Chemical Profession of Alberta, any person acceptable to the membership can join the Association. The requirements would normally be expected to be the minimum of a Bachelors degree in Chemistry with related work experience. Student memberships also exist.

2002 ACPA Board of Directors

Name	Position	Affiliation
Don White	President	Technical Manager Clean Harbors
Mary Mayes	Secretary	Project Chemist Matrix Solutions Inc
Trent Parks	Treasurer	URS Corporation
Kevin Dunn	Past-President	Corporate EMS Manager Agrium
Jim Hyne	Director	Professor Emeritus, U. of Calgary, Consultant
Frank Bachelor	Director	FWB Chemical Consulting
Stan Backs	Director	SynchroComm Technical Communications
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