

A SUBMISSION TO THE MOE REGARDING THE PROPOSED AMENDMENTS TO REGULATION 153/04 OF THE EPA

February 23, 2008

Mr. Tim Krsul
Senior Policy Analyst
Ontario Ministry of the Environment
Integrated Environmental Planning Division
Land and Water Policy Branch
135 St. Clair Avenue West, 6th Floor
Toronto, Ontario
M4V 1P5

Delivered via fax to: (416) 326-0461
Delivered via e-mail to: Tim.Krsul@ontario.ca

**RE: Comments Related to the Proposal: Brownfields Regulation-Qualified
Persons, EBR Registry Number: 010-2364**

Dear Mr. Krsul:

I would like to thank you for the opportunity to comment on the proposed amendments to Regulation 153/04 of the EPA (EBR Registry Number: 010-2364).

Under current regulation, members of the ACPO (Chartered Chemists) are considered Qualified Persons able to take responsibility for, and sign-off on, Phase I ESA, Phase II ESA without risk for RSCs. The proposed regulation will disqualify Chartered Chemists as QPs.

I believe that the proposed regulation does not serve the interest of the public when it prevents some of the most experienced QPs in Ontario from using their competencies in the public good.

My comments follow:

1. The safety and welfare of the public must be the overriding consideration in any decision regarding who is who is allowed to be a QP in the assessment, remediation, and development of brownfields. These are not empty words. This is about the safety, health and welfare of children and students who will be playing and studying in day cares, schools, play grounds and parks that are built on redeveloped brownfields. It is about people living and working in residential housing and industrial complexes built on such properties.

We have had examples of the disasters that may occur when the development of brownfields go wrong. No community wants to see this happen, and no government wants this to occur under its watch or, for that matter, at any time.

I do not believe that the disqualification of highly competent and experienced professionals who are best qualified to protect the interests of the public and the environment with respect to chemistry issues, serves this purpose, and I urge the MOE to reconsider its decision.

2. I believe that MOE's process for consultation and input from stakeholders was not well defined, well developed, or carried out in a timely manner, and that some professional organizations (including the ACPO) representing QPs were not consulted fully or in a timely manner. I believe that the Ontario Government must now act in a manner to correct this perception of ineffective consultation, withdraw its proposed regulation, and commence a well-defined and transparent process of consultation and deliberation that will include all stakeholders working in the public's interest
3. I have reviewed the proposed regulation in order to find the reasons given by MOE for its decision to disqualify professional chemists as QPs. I have examined the information and data presented with regards to: integrity and completeness; reasons provided, the arguments made, including the logical flow of the argument; the development of a well-argued position; and the validity of the arguments.

I have been unable to find a stated reason for MOE's decision and thus find it difficult to understand MOE's rationale for disqualifying Chartered Chemists as QPs.?

The MOE's document has not presented well-developed, well-supported, and well-documented, valid arguments for disqualifying professional chemists as QPs. I find that, in many instances, information is not presented completely and within full and proper context. As such, readers who are not knowledgeable about the issues being addressed, may be misled inadvertently, into drawing inferences and reaching conclusions that are incorrect.

I have presented three statements taken from the MOE's document as examples of the above:

- i) *"At the core of the responsibilities of a qualified person is the application of geoscience and engineering principles."*

The MOE gives no evidence to support its position that the core competencies for RSCs are based on engineering and geoscience principles only.

This statement is, of course, completely untrue. One of the core responsibilities of a qualified person is the application of chemical principles.

I can say that the statement is a partial truth because engineering and geoscience are also involved in RSC work. But when such a statement is not

placed in full context, it may inadvertently mislead its readers into inferring that chemistry is not a core principle for RSCs and not important, and thus it is not important to have professional chemists as QPs overseeing work that may present a danger to the public.

- ii) *between October 1, 2004 and October 1, 2007 "... eight hundred and sixty-six (866) RSCs were acknowledged and posted on the Registry. In just over ninety-eight percent (98%) of RSCs the required certification statements were made by Professional Engineers or Professional Geoscientists ..."*

I am unsure as to why this statement is placed here and what is the reader supposed to infer from it. One of the inferences that may be readily drawn from the MOE's statement is that other professionals including chemists do less than 2% of RSCs, i.e., only about seventeen (17) RSCs, thus professional chemists are not involved to any great extent in environmental site assessment and remediation, and in multi-disciplinary team leadership, and their disqualification as QPs can be justified.

The statement placed in context gives a very different picture. The data presented above is for RSCs acknowledged and filed to the Registry only. It is not necessary to file every Phase I ESA and Phase II ESA RSC to the Registry. The figures quoted above simply reflect this bias and the fact that when an RSC is needed, it is often an engineer who is in charge of the land development, and thus the figures quoted do not reflect the number of Phase I ESA and Phase II ESA RSCs carried out to date. Professional chemists, in fact, have carried out many thousands of these assessments over the time period mentioned.

- iii) *it "... is proposing a qualified person definition that will enhance Records of Site Condition quality, ..."*

This is an example of a statement given as fact when the MOE has not given any evidence to support the statement, and to show how this will be achieved by disqualifying professional chemists as QPs. How does the proposed regulation enhance the quality of RSCs? How does removing the only professionals within the system who have competencies in, and whose scope of practice is, chemistry enhance the quality of RSCs? I believe that the MOE has made an unsubstantiated statement, one that has no validity, and that the MOE has no justification in this instance to disqualify professional chemists as QPs based on this assertion.

I understand that the MOE has concerns about some RSCs that have been filed in the past, however, it is not clear to us how disqualifying as QPs the only professionals within the RSC process who have competencies in chemistry, will enhance the quality of RSCs. I ask the MOE to explain its rationale to me.

I believe that the MOE's document is flawed in several areas and does not make a reasoned, well-argued, and valid argument for its decision regarding QPs. I believe the Government of Ontario owes the public and all professionals currently

designated QPs, a valid rationale for disqualifying Chartered Chemists as QPs. I urge the MOE to withdraw its proposed regulation and work with all stakeholders to determine the requirements for whom should be a QP.

4. The MOE has not presented a case to justify its decision to disqualify professional chemists as QPs based on competency.
The redevelopment of brownfields requires as the basic starting points: 1) proper sampling and chemical analyses of the samples to determine the types and amounts of chemical contamination on the property, and 2) remediation of the sites to neutralize, reduce, or eliminate chemical contaminants. Both of the above are not as simple as many may believe. They require knowledge, expertise, experience, and skills in many areas including chemical interferences, equilibria, diffusion and migration of chemicals in many media, etc., all of which are based on chemistry and chemical principles. Thus the starting points for all site assessment and remediation redevelopment of brownfields is chemical in nature. I am sure that no one, including the MOE will argue that chemists should not carry out and take responsibility for this work.

Why then is the MOE disqualifying Chartered Chemists in Ontario as QPs, a move which will make it impossible for them to take legal responsibility for their work under Regulation 153/04 of the EPA? I believe that chemistry is a main, probably the major, core competency required for site assessment and remediation work, and that professional chemists are best qualified to carry out this work.

I urge the MOE to withdraw its proposed regulation and work with all professionals to determine what are the required competencies and which professionals should be taking responsibility in each area.

5. In making its case to define QPs as engineers and geoscientists solely, the MOE states that *“These professions also have active, publicly accessible and publicly regulated accountable mechanisms (set out in the Professional Engineers Act and the Professional Geoscientists Act)”*.
Nowhere in its document does the MOE state or argue that the ACPO is unable to discipline its members or that its members are not accountable in law in a manner similar to the PEO and the APGO. I believe that Chartered Chemist are accountable to the public in law just as those of other professional organizations.

The proposed regulation introduces new uncertainties regarding the issue of accountability and responsibility for RSC work.

Two aspects of RSCs are site assessment and site remediation, both of which involve the use of chemistry and chemistry principles. The MOE’s document defines a qualified person as *“... the team leader and the person accountable for the quality of work undertaken by the assessment and remediation team. ...”*.
The proposed regulation raises serious questions about the chain of accountability and ultimately who takes responsibility for the quality of the RSC work.

Under the proposed regulation engineers and geoscientists will have to take responsibility for, and sign-off on, work that has been done by chemical laboratories. This may very well contravene the Acts under which they function as such work is outside of their competencies and scope of practice. Under the current regulation this can be avoided by having Chartered Chemists carry out this component of work in RSCs.

Site Assessment

Section 47 of Regulation 153/04 requires the use of an accredited (with regards to certain standards) laboratory for the analysis of soil, ground water and sediment. There has been a great deal of uncertainty regarding the chain of accountability when a QP, who is not a Chartered Chemist, uses such a laboratory to carry out RSC chemical analyses for which the QP is ultimately required to take responsibility. Laboratories are accredited, not individuals. When an employee who is not a Chartered Chemist signs off on a report, that individual is responsible to the laboratory, not to the public or the Government of Ontario, or the QP requesting the work, under current legislation. The accredited laboratory similarly is not accountable in law to the public, despite Section 47 of Regulation 153/04. Under the current regulation a chain of accountability can be established readily by the laboratory and the QP (if not a Chartered Chemist) requesting the work, by having a Chartered Chemist (as an employee) sign-off on reports. I have had discussions with supervisors of accredited laboratories and I know that this has been done in many laboratories.

Under the proposed regulation, this will no longer be possible, since even if a Chartered Chemist signs-off on work, not being a QP means that he/she is not accountable through Regulation 153/04 for any RSC work done. Since the laboratory is not a "QP", this means that ultimately the engineer or geoscientist who is the team leader will have to take responsibility for the quality of the RSC work. Since this work may not be within the competencies and/or scope of practice of the QP, this is a clear violation of the PEO and/or APGO Acts.

Site Clean-up

The issue of site remediation presents similar challenges when the clean-up involves recommendation and/or use of chemicals to neutralize, reduce and/or eliminate chemical contaminants in site remediation work, and the same arguments can be made as to the chain of accountability and whether QPs who are not Chartered Chemists may be in violation of the Act under which they practice.

The MOE has not made a case to disqualify professional chemists as QPs based on lack of accountability in law and as such cannot use this argument to disqualify members of the ACPO as QPs. In fact, the proposed regulation will certainly "muddy the waters" as to accountability, and further introduce the question of whether such QPs are in contravention of their Acts.

I urge the MOE to withdraw its proposed regulation, and work with all professionals, and their legal representatives to get a legal opinion on the issue of accountability regarding the brownfields issue.

7. The proposed regulation adversely affects the Governments own initiatives for promoting and producing highly qualified people in the sciences, promoting science and technology, attracting business and industry to Ontario, and will cause a drain of highly trained scientists to other rapidly developing provinces, discourage young people from studying the environmental sciences and chemistry, and will put many individuals out of jobs and business.

Many of my students approach me for information and advice regarding opportunities for jobs and areas for research. I can say truthfully that jobs and research in the environmental area is one of the topics that I discuss most often and with most students. What advice am I to give them if this regulation is passed - that they will find jobs, but their prospects for advancement to senior positions in environmental companies are limited, and they will never be able to have their own companies?

I urge the Government of Ontario not proceed with the proposed regulation until it has examined the full implications with respect to university and college's education programs, and employment now and in the future.

8. I have grave concerns about the MOE's proposal to address the issue of disenfranchisement of current QPs by having the PEO and the APGO grant licences to other professionals now working in site assessment and remediation. I believe that this process has not been well thought out, planned, or documented, and much is open to question.

I urge the MOE to withdraw its proposed regulation, and not proceed until all valid questions and concerns are answered to the satisfaction of the public and all professionals, a well-defined process for granting licences is in place, and the MOE can guarantee that a working, competent professional will be able to meet all requirements and receive a licence within the specified time-frame (under the proposed regulation this is one year).

Recommendation to the MOE

I have presented some recommendations that I would like the MOE to consider:

1. withdraw its proposed amendments to Regulation 153/04 of the EPA,
2. postpone any decision on the redefining of Qualified Persons for a minimum of one year,
3. work with all stakeholders to set up a transparent, participatory and fair process to define Qualified Persons, possibly through a joint committee,

4. consider extending the scope of practice for Chartered Chemists to Phase II ESAs with risk,
5. work with other provinces and professionals to address the issue of brownfields assessment, remediation, and development at the national level.

If you have any questions and/or concerns, please feel free to contact me.

Regards,

David Naranjit

David Naranjit, Ph.D., C.Chem.
Professor,
Department of Chemistry and Biology,
Ryerson University, Toronto, Ontario. M5B 2K3

Phone: (416) 979-5000, ext.-6353

Fax: (416) 979-5044

E-mail: naranjit@ryerson.ca