PROFESSIONAL ENGINEERS GOVERNMENT OF ONTARIO

INGÉNIEURS – GOUVERMEMENT de L'ONTARIO

DRAFT

Submission to
Part II of the Walkerton Inquiry

The Professional Engineer in the Ontario Public Service

September 2001

About the Professional Engineers Government Of Ontario (PEGO)

PEGO is the bargaining agent for approximately 450 professional engineers employed by the Ontario Government in their professional capacity. Most Ministries employ PEGO members, with the bulk of the membership located at the Ministry of Transportation, Ministry of Environment, Ministry of the Solicitor General, Ministry of Labour, Ministry of Natural Resources, and the Ontario Ministry of Agriculture, Food, and Rural Affairs.

With respect to issues of drinking water safety, approximately 100 engineers are employed by the Ministry of the Environment, mostly in Operations Division, in Regional and District Offices, and the Environmental Assessment and Approvals Branch.

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1. INTRODUCTION

Professional Engineers Government of Ontario (PEGO) has full standing at Part II of the Walkerton Inquiry. This paper is intended to augment other papers presented during Part II, to raise issues related to the role of the professional engineer in the public service.

2. THE ISSUES

Both Professional Engineers Ontario (PEO), the licensing and regulatory body for the practice of professional engineering in Ontario, and the Ontario Society of Professional Engineers (OSPE), the member services and advocacy organization, have provided submissions to the Walkerton Inquiry. PEGO, while substantially agreeing with the submissions and recommendations of these organizations, is concerned about the what may be inferred about the role of professional engineers in private practice in safeguarding the public welfare. The following excerpts from these reports are of especial concern to PEGO, as they seemed to blur the line between the duties of the engineer in private practice with those in the public service:

"Through the Code of Ethics, professional engineers have a clearly defined duty to society, which is to regard the duty to public welfare as paramount, above their duties to clients and employers. Their duties to employers involves acting as faithful agents or trustees, regarding client information as confidential and avoiding or disclosing conflicts of interest." [1]

"Professional engineers have obligations both to their clients and to the public. When an engineer finds unsafe or unethical practices in the workplace, PEO's definition of professional misconduct includes a failure to report a situation that an engineer believes may endanger the safety or welfare of the public." [2]

"Regulations under the Professional Engineers Act define professional misconduct as including: failure to make reasonable provision for the safeguarding of life, health or property of a person who may be affected by the work for which a practitioner is responsible, and failure to act to correct or report a situation which the practitioner believes may endanger the safety or welfare of the public." [3]

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[1] Professional Engineers Ontario, "Submission to Part II of the Walkerton Inquiry", April 2001, p. 11
[2] Ibid, p. 16
[3] Ontario Society of Professional Engineers, "Safe Drinking Water and the Role of Professional Engineers - Submission to Walkerton Inquiry, Part II", March 2001, page 22

The most recent Engineering Dimensions, the official publication of the PEO, recently had a cover story entitled "Engineering Ethics, your public duty"[4]. This report further details the PEO's interpretation of the *Professional Engineers Act (PEA)*, and the Code of Ethics respecting the duty of the engineer to the public.

The Association's concern about the above statements was heightened by Part II verbal testimony of OSPE on July 23, which indicated that as long as a professional engineer or engineers are involved in the production or distribution of safe drinking water, there is no difference as to whether the engineers involved are private or public sector engineers. Both OSPE and the PEO are in agreement that there is a need to maintain and expand the role of professional engineers in the production and distribution of safe drinking water. PEGO agrees with this, with the addition that the involvement of professional engineers must have distinct private and public sector roles. Public sector engineers have unique expertise, and are best placed to deal with issues of the public interest. Further, the Association believes that the public interest is best served by private sector engineers focusing on their duties to the client and to have engineers employed by regulatory agencies determine issues of the public interest. The core argument for Government privatization over the last number of years has been that the private sector can substitute for the public sector with no increased risk to the public, while helping to lower government costs. PEGO is concerned that the submissions of PEO and OSPE to the Inquiry can be read to support that argument.

3. DUTY TO THE PUBLIC

No profession has an open ended responsibility to their clients to the exclusion of the broader interests of society. Lawyers are not allowed to conceal evidence on behalf of their clients. Doctors are now required to report when their elderly patients may be unable to safely operate a motor vehicle. However, the predominant obligation of these professionals is to their clients. Further, they have clearly defined circumstances under which they must override their responsibility to the client in favour of broader societal interest, and these circumstances are detailed either in law or legal precedent. The PEO's

[4] Aitken, Gayle, "Engineering Dimensions", July/August 2001, Vol. 22, No. 4, p. 25-28

statement that the professional engineer's duty to the public welfare is paramount, ahead of the duty to the client, stands is stark contrast to the position of every other professional body. While the sentiment that the PEO expresses is laudable, it is inconsistent with the duty of the engineer to the client, market forces, and in the end, the public good.

The PEO acknowledges this difference in Engineering Dimensions, when it states that "The duties of other professions relate more directly to their responsibility to their clients." [5] Neither the PEO or OSPE submissions go into any detail as to why they view the practice of engineering as being so different from other professions, as to de-emphasize the duty to the client. However in the Engineering Dimensions article, the PEO Manager of Professional Practice, Bernard Ennis P.Eng., states "Such professions as medicine, law, engineering and accounting, with protected titles and defined scopes of practice, are mandated under legislation to provide specific services that benefit society. However, since each profession has different duties to the public, the practitioners of each ascribe to codes of ethics that reflect their differing duties to society. Whereas doctors are entrusted with maintenance of personal health and lawyers support society's concerns dealing with justice and rights, engineers are expected to protect the welfare of society in relation to the natural world."[6]

It is true that each profession provides different services to society. This in itself is no reason why the professional engineer must be singled out as having a preeminent duty to the public ahead of the duty to the client. In exceptional cases, other professions are required consider the duty to public welfare, but only under circumstances defined in law, with legal protection for the professional from liability. In contrast, the duty to protect the public welfare for an engineer is open-ended, undefined in law, and without specific legal guidance or protection. To ask an individual engineer to protect the "welfare of society in relation to the natural world", without definition or protection, puts the engineer is a perilous position, legally and ethically, in their day to day work.

[5] Aitken, Gayle, "Engineering Dimensions", July/August 2001, Vol. 22, No. 4, p. 27
[6] Ibid, p. 25-26

It can be interpreted from the Dimensions article that the PEO views physicians as providing services to individuals. Engineers likewise provide services to both individuals and corporations. Lawyers also provide services to both individuals and corporations, but that is no reason why a lawyer, involved in a merger and acquisition, should factor in societal harm in the form of job loss, in considering their duties towards the client. The key distinction that the PEO seems to be making is that professional engineering can impact beyond the client into broader society. A water works impacts not just the client for which it was constructed but also those who derive their water supply from it; however, the practice of medicine or law is just as capable of having broad impacts across society, biotechnology being one example. This is not a reason to diminish the duty to the client in professional engineering to the level of preserving confidentiality and disclosing conflicts of interest.

The Engineering Dimensions article goes on to talk about "public's reliance on professional engineers to ensure that the infrastructure, technology and consumer products on which society depends are both safe and do not negatively impact our way of life" [7]. The issue of safety touches every aspect of professional engineering, but what constitutes a "safe" product is normally defined by a set of codes or practices promulgated by regulators or standard setting bodies like the Canadian Standards Association. The practitioner has explicit guidance in these matters, and is not left to deal with issues of "how safe is safe". When we move into generalities like "negatively impacting our way of life", these tend to be so ambiguous as to be meaningless. There are many environmental groups that fervently believe that most works of professional engineering in some way "negatively impact" our way of life, by altering the natural environment or causing pollution.

The PEO is confusing what falls in the realm of malpractice or negligence with a desire to have engineers take a broader societal responsibility of the kind that other professions do not have. Malpractice covers failure of the part of the engineer to adequately apply their knowledge in a reasonable manner, negligence, undertaking work

[7] Aitken, Gayle, "Engineering Dimensions", July/August 2001, Vol. 22, No. 4, p. 26

for which they are not qualified, or incompetence. Every professional body develops applicable definitions covering malpractice, and it is certainly the benefit society receives from having chartered professions, by ensuring that services important to the public interest are rendered in a way meeting standards of knowledge and quality. Without this, the entire profession could be brought into disrepute. Further, a client must be assured that a licensed engineer has the skills, knowledge and ability to adequately deal with matters of professional engineering on behalf of the client. There is no argument around this. What is of concern to PEGO are statements which lead the inquiry to conclude that an engineer in private practice can take a protective role of the broader public interest in conflict with their duty to the client that retains them.

4. THE PRACTICAL IMPACT FOR PROFESSIONAL ENGINEERS

PEO and OSPE propose a role for engineers where two masters are served, one the "public" whose welfare it is the engineer's "paramount" duty to protect and to a lesser extent, the client that is retaining the engineer. This simply puts engineers in a no-win situation.

In dealing with the duty to report, the PEO submission states that professional misconduct includes "failure to report a situation that an engineer believes may endanger the safety or welfare of the public."[8] This over-rides the duty to preserve confidentiality of client information. In contrast, Rule 2 (Relationships to Clients) of the Rules of Professional Conduct of the Law Society of Upper Canada is as follows:

> 2.03(1) A lawyer at all times shall hold in strict confidence all information concerning the business and affairs of the client acquired in the course of the professional relationship and shall not divulge any such information unless expressly or impliedly authorized by the client or required by law to do so."

The commentary to this rule states that a lawyer cannot render effective professional service to the client unless there is full and unreserved communication between them.[9] It

[8] Professional Engineers Ontario, "Submission to Part II of the Walkerton Inquiry", April 2001, p. 16
[9] Rules of Professional Conduct, Law Society of Upper Canada

also states that the client must feel completely secure that matters discussed with their lawyer will be held in strict confidence. Exceptions to the rule of confidentiality for a lawyer are, by authorization of the client or where required by law. In contrast, the PEO requires an engineer to violate confidentiality in any situation where there is a "belief" that the public safety may be endangered. The further commentary to Rule 2.03(1) states that "confidentiality and loyalty are fundamental to the relationship between a lawyer and client and legal advice cannot be given and justice cannot be done unless their clients have a large measure of freedom to discuss their affairs with their lawyers"[10].

In the medical profession, The College of Physicians and Surgeons promulgated Policy #10-00 (Mandatory Reporting) which states that "Physicians have both a legal and ethical duty to keep patient's confidence. However, in some circumstances, doctors are required by law to breach confidentiality and report certain events". By law, doctors must report child abuse, under the *Child and Family Services Act.* They must also report a condition which may constitute a hazard to aviation safety, under the *Aeronautics Act*, if a patient is a pilot or an air traffic controller. There are fines levied against a physician who does not make a disclosure required by statute. Again, unlike the position of the PEO, the medical profession places the confidentiality of the client as the highest interest, with exceptions set out in law. A physician, unlike an engineer, is not left to decide every situation requiring disclosure from first principles.

There is no difference between the need of clients to have confidentiality in their legal affairs and their need for confidentiality in matters related to professional engineering. How can a client fully disclose to an engineer, all the facts with respect to defects or problems in a water works, without the assurance that the disclosure will be in strict confidence? How can an engineer render effective service to the client, and correct deficiencies in water works, unless there is full and unreserved communication between them? In the practice of medicine, a doctor is not required to disclose to authorities if a client has a medical condition such as HIV. Even though the presence of this serious

[10] Rules of Professional Conduct, Law Society of Upper Canada

medical condition may harm others, society has deemed that public safety can be best served if the patient can seek medical advice and treatment in confidence. Without this assurance, a patient would simply avoid seeking the aid of a physician.

In the practice of law, without confidentiality, "justice cannot be done". Likewise, in the practice of professional engineering, the real issues of public safety cannot be addressed without confidentiality. Public safety and welfare would be better served by making client confidentiality the absolute duty of an engineer, and defining the exceptions to that, in law. This will serve to align the interests of the engineer with that of the client they are to serve, giving clear guidance as to when the interests of society go beyond the interest of the client. Without this assurance of confidentiality, an owner of a water works may simply not seek out the advice and guidance of a professional engineer, for fear of being reported. Further, a client consulting an engineer can not be certain when and what part of their confidential information may be disclosed, and may not provide all the information that an engineer needs because of this. The legal and medical professions are protected from liability when they fulfil their responsibility to report. There are no such protections for an engineer who "blows the whistle". The current lack of this protection is noted in Recommendation 15 of the OSPE report which states that consideration should be given to the development of whistle blowing legislation.[11]

It is interesting to note that there were "whistle blower" provisions of *the Public Service Act (PSA)* which were included in legislation but left unproclaimed. The Ontario Government disclosed in April of this year that the provisions were not being proclaimed in planned amendments to the Act under Bill 25, as the provisions were "ambiguous, cumbersome and inefficient"[12]. The PEO duty to report is similarly ambiguous. Further, for engineers employed by the public service, it puts us in a double bind that if we violate the confidence of the government by "whistle blowing", we are in violation of the *PSA*. If we do not, we are in violation of the PEO Code of Ethics. The PEO is clearly aware of this problem when it notes that not even the *Professional Engineers Act* offers "whistle

[11] Ontario Society of Professional Engineers, "Safe Drinking Water and the Role of Professional Engineers - Submission to Walkerton Inquiry, Part II", March 2001, page 24
[12] Management Board Secretariat, "Updating the Public Service Act", April 2001

blowing" protection, while at the same time, the *PEA* exposes engineers to charges professional misconduct when they do not[13]. PEO proposes to address these problems by indemnifying and protecting the engineer from reprisal for "whistle blowing"[14], but this will only solve a small part of a larger problem, the ability of the client to place trust in the engineer. It bears repeating that other professions maintain the confidentiality of the client as absolute, except under clearly defined circumstances, defined in law, where the practitioner is protected from liability. The PEO's statements to the inquiry are accurate in saying that an individual engineer has to decide when safety or welfare of the public is endangered and there is no protection from liability when an engineer makes this decision. If a member of the public is impacted by a work of professional engineering, they may certainly sue the engineer because of the lack of defined circumstances under which the engineer must breach confidentiality. In spite of this, the PEO is recommending in their submission to the Inquiry that the duty to report be "clarified and enhanced."[15]

Both PEO and OSPE have given insufficient thought to the import of the statements they have made to the Inquiry regarding the engineer's duty to the public, and the duty to report. The emphasis that the PEO places on the public welfare as being paramount has also not been thought through carefully. Every other profession regards the duty of the practitioner to the client as being paramount, again with exceptions under law. The client pays a fee and is entitled and expects to have their interests regarded as being paramount. If clients were aware that whenever they hired a professional engineer, they were also hiring an "agent" for the public as well, and that the duties to the public were "paramount" over the duties to the client, most clients would think twice before retaining professional engineering services. PEGO is not arguing for lowering ethical standards for engineers, nor are we saying that an engineer should assist a client in dishonesty or illegal conduct. We argue that the emphasis on who is owed a "paramount" duty should be the client, not the public. The public interest should be served through legal definition of what duties are owed to the public, under what circumstances, and in

[13] Professional Engineers Ontario, "Submission to Part II of the Walkerton Inquiry", April 2001, p. 33
[14] Ibid
[15] p. 6

ensuring that regulatory agencies that work on behalf of the public are well funded to the purpose of protecting their interests.

5. THE PUBLIC SECTOR ENGINEER AND THE PUBLIC INTEREST

The PEO defines professional misconduct as including "failure to make reasonable provision for the safeguarding of life, health or property of a person who may be affected by the work for which the practitioner is responsible, and failure to act to correct or report a situation which the practitioner believes may endanger the safety or welfare of the public"[16]. Aside from the concerns expressed by PEGO about the ambiguous and broad nature of the duties to the public and the conflict with the duty to the client, PEGO is also of the view that it is unreasonable to expect a private sector practitioner to be aware in many circumstances as to when a situation may endanger the public. The Association argues that there are many circumstances in which a public sector engineer is better placed to consistently identify these dangers and to assist the private sector engineer to correct them. This does not involve the public sector engineer duplicating the work of the private sector engineer. What it does involve is public sector oversight of all phases of the design and operation of a water works. It involves public and private sector engineers working in a complementary fashion, in a way most beneficial to the private sector engineer's responsibility to the client and the public sector engineer's responsibility to public and the public interest. It should be kept in mind that over 99% of the engineering work associated with a water treatment and distribution facility is done by private sector engineers. The important role of the public sector engineer should be recognized and protected.

The limitations on the private sector practitioner to balance the duty to the client and public are acknowledged in the OPSE report where they say "It must be recognized that off-loading to the private sector has it's limitations. The need to generate revenue dictates that industry does only what it gets paid for. Consulting engineers do not monitor the environment of their own accord and only rarely do they develop new

[16] Professional Engineers Ontario, "Submission to Part II of the Walkerton Inquiry", April 2001, p. 13

processes and treatments"[17]. Private sector engineering has the objective of revenue and profit. The client hires a professional engineer to perform a specific task. Especially in circumstances where bidding is involved, the professional engineer must deliver their service within a certain cost envelope. They do not have the leverage to expand the scope of this service at the expense of the client, nor can they use the threat of the "duty to report" to do so, and ever expect that or any other client to consider retaining them in the future. Where water works are concerned, the clients of professional engineers are in the broader public sector, facing the effects of cutbacks and municipal downloading, and consequently demanding lower prices from those providing engineering services. The minimum standard to satisfy the regulators is the extent of the engineering services that many of municipalities are seeking. Staffing and training at many engineering companies have been cut to the bone. Many professional engineers designing water works do so against a background of severe constraint, and influenced by local politicians. This is an environment, where without regulatory oversight from public sector engineers, inadequate or inappropriate designs from a public interest perspective will occur.

Public sector engineers have only one client, the Government of Ontario, and by extension the public. Public sector engineers receive no benefit for making a decision in one direction or the other, and are best placed to act in a neutral, disinterested manner when evaluating the proposals of the private sector engineer. The evaluation of their work by public sector engineers also provides a safety net for private sector engineers, when they can tell their clients a design with insufficient safeguards would not be accepted by the Ministry. The very presence of knowledgeable public sector engineers prevents unsound design practices and provides quality assurance control. The presence of public sector engineers provides a level playing field when assessing the work of many different consulting engineering organizations, each having different design philosophies, as well as providing regulatory certainty.

[17] Ontario Society of Professional Engineers, "Safe Drinking Water and the Role of Professional Engineers - Submission to Walkerton Inquiry, Part II", March 2001, page 21

A private consulting company is very different from a regulatory agency. The focus is on satisfying the client, construction efficiency and maximizing profit. Private sector engineers are required by the nature of their client base to have expertize needed to deliver the design of a water works to their client, such as hydraulic, mechanical and structural engineering concepts. Specialized engineering experts prepare plans and specifications for design details within their field of specialization. A small group of senior personnel, such as project managers work on conceptual design of the water treatment facilities and coordinate design work of different departments. Moreover, when there is insufficient work to employ the specialists, their services are not retained, nor are the specialists of the future developed. The talent pool of specialists declines. Thus at a time when drinking water issues have become of significant concern in Ontario, there are insufficient engineering experts to deal with the work[18].

The work of public sector engineer solely focuses on issues of overall public health concerns. Using the Certificates of Approval program as an example, a public sector engineer, reviews the design of a water works to assess "their capability to treat raw water from the proposed source of water supply and deliver to the consumer an adequate quantity of treated water consistently meeting the requirement of the Ontario Drinking Water Objectives (now standards)"[19]. This review by a public sector engineer is the only point at which the Ministry may take pro-active action to avoid problems before they occur. The decision about issuing a Certificate of Approval not only involves a strong technical component, but a determination if a proposal is in the public interest[20] . This requires a very different focus from that of the private engineer. It requires the engineer to have a broad understanding of design guidelines, legislation, Ministry and Government policy, and past experiences in abatement, enforcement, monitoring and reporting, as well as accessing public and other stakeholder input. Any resources preserved from the proactive input of public sector engineers are usually expended several times over in attorneys and investigators.

[18] Torstar News Service, "Paperwork from water rules swamps province", July 31, 2001
[19] Merritt and Gore, "Drinking Water Services, A Functional Review of the Ontario Ministry of the Environment", July 2001, p. 62
[20] William Gregson, "How Ministry Functions are Linked to Approvals", February 23, 2001, p. 36

An engineer in the public service develops highly specialized skills which are focussed on public health and environmental concerns under the umbrella of Ministry legislation and policy. This expertise enables Ministry employed engineers to identify weaknesses in the design of works which may not be apparent to the private sector engineer. This point was demonstrated with the contamination of *cryptosporidium* in the Town of Collingwood's drinking water in 1996. The likelihood of this was not obvious to the project design engineer but was identified by the Ministry engineer long before the outbreak of disease in the existing plant. Likewise, in the process of review for Walkerton well No. 5, issues of water supply protection and need for chlorination had been identified several years before the outbreak of *E.Coli* contamination. During the operating life of a waterworks, many different engineers and engineering companies may be involved in making modifications to it. In this situation, only engineers working for the regulator may be able to assess the entire picture, with respect to the history of operational problems in a water works, and the impact of proposed changes in one part of the water works on the whole.

There are several advantages the public sector engineer has over their private sector counterpart, in identifying and protecting public interest issues. Public sector engineers represent a critical mass of technical and regulatory knowledge and expertise, in one central location, supported by established linkages to other parts of government. This allows public sector engineers to provide consistently uniform and stable judgements on the suitability of proposed designs. The public sector, where there is the will on the part of the Government, is not subject to the swings of the economy that the private sector experiences. The public sector can retain experts during downturns in the economy and continue to develop the water resources professionals that will be need in the future, to continue to promote the public interest. Public sector engineers have much better access to scientific and technical resources than all but the largest private sector engineering firms. In fact, the only organization in the history of this province with the resources and permanence to sustain this critical mass and expertise was the Ministry of

Environment. [21,22] It is certainly true that there has been a decline in the amount of in-house scientific and technical expertise available to Ministry engineers[23,24]. But very few private sector organizations have the technical expertise, or with funding, the ability to develop the requisite expertise, that the Ministry has in one organization currently. Public sector engineers work together with abatement and enforcement staff in a manner that no private sector practitioner can. As the testimony William Gregson of the Ministry of the Environment in Part I indicates, the engineering review of public sector engineers is also used to develop terms and conditions for Certificates of Approval by the same review engineer[25]. The engineering review and development of terms and conditions are inseparable, as Certificates of Approvals are used by abatement and enforcement staff, to assess, inspect and monitor compliance with terms and conditions[26]. Mr. Gregson also testified that the role of design guidelines for water works are not as standards but as a starting point to evaluate design, and that review engineers exercise discretion in allowing deviations from guidelines, to facilitate new or innovative proposals[27]. It is clear that public sector engineers have a distinct role and distinct linkages to Ministry functions, and that private sector engineers cannot act as substitutes in this role.

The Ministry's experiences in dealing with the review of Engineer's Reports prepared under *O.Reg. 459/00 Drinking Water Protection*, offers an example of the distinction between public and private sector expertize. Because there were insufficient in-house engineers to do the work, the Ministry went to the PEO to get water engineers on contract from their companies to help with the implementation[28]. These engineers continue to work for their consulting company and are paid by them. This is a different practice than hiring engineers as unclassified staff on contract, under the *PSA*, where the employer is the Ontario Government.

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[21] Professional Engineers Ontario, "Submission to Part II of the Walkerton Inquiry", April 2001, p. 25
[22] Ontario Society of Professional Engineers, "Safe Drinking Water and the Role of Professional Engineers - Submission to Walkerton Inquiry, Part II", March 2001, page 21-22
[23] Ibid, p. 20
[24] Merritt and Gore, "Drinking Water Services, A Functional Review of the Ontario Ministry of the Environment", July 2001, p. 96
[25] Transcripts Part 1B, Walkerton Inquiry, March 6, 2002, p. 26:12-15
[26] William Gregson, "How Ministry Functions are Linked to Approvals", February 23, 2001, p. 36
[27] Transcripts Part 1B, Walkerton Inquiry, March 6, 2002, p. 58:24-59:10
[28] Ibid, p. 96

The experiences of the Ministry around this have been telling. The MOE cannot hire enough engineers, because the market has simply not produced that many experts[29]. The experts that are hired, work in a Ministry building, where prior to undertaking reviews, they are trained by Ministry experts to do the work in a public sector capacity. They receive daily guidance and direction from Senior Water Engineers in the Environmental Assessment and Approvals Branch who are assigned to work with them and these Senior Engineers act as review coordinators, to ensure quality and consistency of review. In many ways, the Ministry is creating the same conditions that exist when they hire staff under *the PSA* to work for the Ministry. These contract engineers have had a significant learning curve to adapt the Ministry way of reviewing reports. They find that the focus of Ministry work is different from that of their private sector work. As such, after six months of work, not a single consolidated approval has been issued[30]. This is resulting in delays to planned improvements of water works, such as a $2 million upgrade to water works in Hamilton[31]. Because they are not public servants, contract engineers are concerned about potential liability arising from their reviews, and their ability to get malpractice insurance, so they examine issues in much greater depth than public sector engineers would for the same work. They are not as willing to exercise flexibility in imposing terms and conditions where it would be reasonable to do so. A public sector engineer, with close working contacts to public servants in abatement, enforcement and legal functions, perceives liability from a public sector perspective, and uses discretion in the imposition of terms and conditions when appropriate to do so. The contract private sector engineers will eventually fulfil their services to the Ministry and leave to other contracts. The knowledge and judgement acquired by the private practitioner will not be passed on to an engineer in the public service or to a potential competitor when the contract is awarded next. There is no development of a corporate or collective memory to draw on to solve problems in the future. As such, the public gains no future benefit from the investment on paying and training the external practitioner. Continuous improvement also cannot be assured. Finally, there is no guarantee that

[29] Torstar News Service, "Paperwork from water rules swamps province", July 31, 2001
[30] Ibid
[31] Ibid

consultants who previously worked for the Ministry will be available, and the need to train new private engineers on contract will results in delays for clients who are seeking approval of their plans to modify their water works.

PEO and OSPE do recognize the need for public sector engineers, especially when the PEO recommends that provincial regulation of water systems be strengthened[32]. OSPE acknowledges the need for public sector engineers in Recommendation 13 of their report. They call for the creation of the "Engineering Officer" similar to the Medical Officer of Health, whose role would be to safeguard public health and safety in matters related to engineering[33]. There is currently no jurisdiction that has a position of this nature, and we suggest the tasks proposed for the "Engineering Officer" are better performed by public sector engineers employed by the Ministry of Environment.

A public sector engineer, gains expertise with a critical mass of fellow practitioners, drawing on a collective memory of experience in a regulatory climate. We have only one client, the Government of Ontario. We are used to dealing with the public. Further, we are indemnified by the Ontario Government, and as such, are not directly exposed to liability in the same way as a private practitioner, and are able to exercise discretion to balance the public interest with economic considerations. The skills and knowledge of private sector engineers in Ontario are world class. PEGO is not asserting that public sector engineers are more competent or knowledgeable than their private sector counterparts. We do assert that the distinct work of the Ontario Public Service calls for public sector engineers.

[32] Professional Engineers Ontario, "Submission to Part II of the Walkerton Inquiry", April 2001, p. 32
[33] Ontario Society of Professional Engineers, "Safe Drinking Water and the Role of Professional Engineers - Submission to Walkerton Inquiry, Part II", March 2001, page 21-22
[33] Ibid, p. 20

6. SUMMARY AND RECOMMENDATIONS

1. The issue of confidentiality under the *Professional Engineers Act* is of interest to the Commission, because it is plain from the PEO's own submission, that a client may not divulge information to an engineer with assured confidentiality. The Association has presented strong arguments outlining the need for confidentiality for clients such as public utilities commissions. Where these clients are experiencing problems with water works, they should to be able to consult a knowledgeable professional engineer with assured confidentiality, and the engineer should be able to receive this information without having to spend undue time on deciding issues related to the duty to report and potential liability arising regardless of the decision made. The circumstances under which an engineer must disclose confidential information must be clearly stated in law, so that the engineer can know when to disclose and is protected from liability. If the engineer has to decide on a case by case basis to make a disclosure, a client may avoid consulting an engineer or not make a full disclosure. The entire public suffers when for fear of disclosure, a knowledgeable engineer is not consulted by a client or not given full information regarding problems with a water works. This problem cannot simply be fixed by "whistle blowing" protection in which the liability issues for an engineer are mitigated. The practice of engineering should be normalized with respect to other professions like law and medicine, to place the confidentiality of and duty to the client at the highest level, with exceptions detailed in law. In the interest of public welfare, Recommendation 5 of the PEO submission to "clarify and enhance the duty to report", should not be followed. Instead, but they should work with the Attorney General to amend *RRO. 941*, of the *Professional Engineers Act* by replacing the current definition of professional misconduct in s.72(2)c, such that professional misconduct means:

- **Failure to report a situation required by law**

Further s. 77.2(i) of Professional Engineers Ontario Code of Ethics, included in *RRO. 941* should be amended to:

2. A practitioner shall,

i. have regard to the duty to public welfare,

These amendments will make the ethical considerations of a professional engineer with regard to the public welfare consistent with that of other professions and provide an atmosphere of trust for a client to consult an engineer.

2. The *Ontario Water Resources Act* should be amended to clearly define when an engineer must report situations endangering the safety of the public regarding water works. There may be site specific situations which require an engineer to report, and these site specific situations should be spelled out in applicable Approvals for water works, issued under the Act.

3. PEO should work with the Attorney General to identify legislation which involves professional engineering, and amend that legislation to include situations in which an engineer must violate the confidentiality of the client.

4. The issue of resources, staffing and expertise of regulators of water works is of interest to the Commission. With respect to matters regarding professional engineering, there is a positive onus on the Government of Ontario to protect the public interest, and public sector engineers should continue to be retained to protect this interest. Public sector and private sector engineers have different training, experience and focus in their work, as well as different motives, profit versus the public interest. There have been many privatizations in the OPS, and many engineering functions, such as the engineering reviews leading to Certificates of Approval for water works have been or are being considered for privatization. It is the view of Government, that external professional engineers can be contracted to do work currently performed by public sector engineers, with Government retaining the final decision making authority, on issues like Certificates of Approval. The construction of water treatment and distribution

systems is a work of professional engineering and the expertise to evaluate their suitability has to remain an integral function of government. The retention of public sector expertise is vital for proactively resolving issues regarding the safety of drinking water, and can never be reliably divested to the private sector. PEGO therefore recommends that any further attempts to divest or privatize public service engineering functions be halted. Any regulatory decisions regarding water works should always have the involvement of public sector engineers, and where Government has an approval function, PEGO recommends that the technical evaluation continue being performed by public sector engineers.