

The Complaints Committee in accordance with section 24 of the *Professional Engineers Act* (the “Act”) referred complaints in the matters of Engineer A and Engineer B (the “members”) to be dealt with by way of the Stipulated Order process.

In accordance with the Stipulated Order process, William Walker, P.Eng., a member of the Discipline Committee (“Discipline Committee member”) of the Association of Professional Engineers of Ontario (the “association”) was selected to represent the Discipline Committee for the disposition of these matters. After reviewing the complaints and other related information, the Discipline Committee member met with the members to allow them the opportunity to offer any explanations and/or defence for their actions and conduct.

The complaints alleged the following against the members:

1. In May 1998, a local city council approved a water supply system. The water supply plan was approved under the *Environmental Assessment Act* in December 1998.
2. In January 2001, a new council for the city passed a resolution authorizing Consulting Firm #1 to proceed with engineering studies and pre-design reports for an alternative water supply option. An addendum to the Environmental Study Report (ESR) was required under the *Environmental Assessment Act*.
3. In or about January 2001, the members volunteered their technical services to the city’s proposed water committee. Engineer A was a retired professional engineer and acted with Engineer B as one of two “community resource members” to the water committee.
4. On February 5, 2001, the city requested that the water committee oversee the preparation of a design

Summary of Decision and Reasons—Stipulated Order

In the matter of complaints regarding the conduct of:

Engineer A and Engineer B

members of the Association of Professional Engineers of Ontario.

- report for municipal water supply options. This report was to be used to support the addendum to the ESR.
5. Due to budgetary constraints, the ESR addendum was to be prepared by the city’s engineering staff. Consulting Firm #2 and Consulting Firm #3 were hired to provide information to support the evaluation process in the ESR. Consulting Firm #1 developed updated cost figures for both water supply options.
6. The environmental assessment process that accompanies any change to a water system requires that alternative solutions be properly considered in terms of costs and environmental impacts and that the public be consulted in the evaluation. The water committee’s mandate included the review of costs for each technical option and to report to the city.
7. The members were proponents of the alternative water supply option. In a letter to the editor that was published in the local newspaper on February 16, 2001, the members provided cost estimates and design recommendations regarding the water supply system.
8. Engineer A publicly commented on the work done by the consulting engineering firms, provided his review, and proposed his own technical design and solution.
9. On February 10, 2002, the members each wrote a letter to the city clerk, and asked that the letters be distributed to all members of city council. In the letters, the members expressed concern that a city councillor had brought up the issue that the members lacked the requisite experience to advise on communal water systems. Engineer A wrote that his “engineering experience has been in the design and maintenance of plant facilities in an industry that is far more complicated than a water system” and that he had “considerable hydraulic experience, with emphasis on pumping and piping.” Engineer B wrote that “statements have impugned our professional reputations” and that “such statements have the potential to negatively impact upon my business interests.” Engineer B further stated that volunteers such as himself only wished to “contribute their expertise” to the community.

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10. In a February 12, 2002 article in a local newspaper, Engineer B publicly admitted that he had “not personally designed a water system for a municipality, but that he had experience reviewing “numerous conceptual and design reports prepared by consultants for municipal water treatment plants and related facilities.” Engineer B also stated publicly that “Designing a water system is easy. Technologists can do it.”
11. On March 8, 2002, Engineer A submitted his comparative cost estimates for the water supply options to another local newspaper. He also gave details of his experience and qualifications as a professional engineer.
12. In or about June 2002, Engineer A prepared a comparative flow sheet for the water supply options. He submitted these to the water committee with marked up notes on drawings prepared by Consulting Firm #1 and Consulting Firm #2.
13. In a memo to city council dated August 27, 2002, the members critiqued the cost estimates made by Consulting Firm #1. The members then proceeded to make their own design recommendations for the alternative water supply system, and provided design recommendations and the estimated costs for implementing those designs.
14. On September 16, 2002, Engineer A provided the chairman of the water committee with a report providing his professional opinion regarding the security of supply, reliability of existing municipal water supply equipment and processes, freeze protection requirements for city supply lines, contamination risks, and other issues.
15. On September 16, 2002, the members provided city council with a summary of the operating and maintenance cost estimates for the two water supply options.
16. In a memo to city council dated October 1, 2002, the members stated that they had a “philosophical difference” with Consulting Firm #1 as to the design for the water supply system.
17. On October 4, 2002, the manager of engineering for the city provided a design report with respect to the two water supply options. The report included the members’ cost estimates for capital and operating costs, which varied significantly from those provided by Consulting Firm #1. The report stated that Consulting Firm #1 had concluded that the first option would cost \$19,348 and that the alternative option would cost approximately \$32,448. The first option would cost \$82,000 per year less to operate than the alternative. Over 20 years, the present value of the alternative option was estimated to be \$14.1 million more expensive than the first option. By comparison, the members had concluded that the first options would have a capital cost of \$21,336 and that the alternative options would only have a capital cost of \$23,345, based on their design proposal. According to the members, the first option would cost \$450,000 per year more to operate than the alternative. Over 20 years, the members claimed that the present value of the alternative option was estimated to be \$4.5 million less expensive than the first option. The members’ estimates differed from those of Consulting Firm #1 by \$18.6 million based on the present value of the options.
18. In a local newspaper article of October 23, 2002, Engineer A was quoted as saying that the consultants inflated the cost of the alternative option in order “to continuously promote” the first option and that the consultants “included the additional costs of equipment and inflated them.” Engineer A was also quoted as admitting that he had never designed a municipal water supply system. The same edition of the paper included a letter from Engineer B alleging that the consultants’ costs were excessive in order to favour the first water supply option.
19. In a January 13, 2003 presentation to city council, Engineer A recommended, and Engineer B supported, a design utilizing several miles of 24-inch diameter siphon pipes in order to obtain power savings. Engineer A presented a schematic of an unworkable siphoning arrangement that purported to siphon water from a nearby lake and up a mountain with a net suction rise of approximately 84 metres (275 feet). The siphon arrangement was part of the alternative water supply option recommended by the members.
20. On or about February 10, 2003, council decided to follow the advice of Consulting Firm #1, and to proceed with the first water supply option, contrary to the recommendations made by the members.
21. On or about February 13, 2003, the members stated publicly that they planned to file an environmental bump-up request to the government and that they opposed the first water supply option for the city.
22. The members continued to voice their opposition to council’s decision. The members publicly and repeatedly criticized the analysis, conclusions and recommendations proposed by Consulting Firm #1. On or about May 30, 2003, Engineer B filed a bump-up request to the Ministry of the Environment.

23. In a letter to the Minister of the Environment dated May 30, 2003, Engineer A referred to the ESR Addendum No. 3 as “one-sided whitewash” to favour the first water supply option and that the estimate by Consulting Firm #1 “was not up to the standard used in industry.”
24. It was alleged that the members:
- publicly expressed opinions on professional engineering matters that were not founded on adequate knowledge;
 - prepared technical designs and cost estimates relative to such designs in an incompetent manner;
 - offered and provided services within the practice of professional engineering without a Certificate of Authorization, in breach of section 12(2) of the *Professional Engineers Act*;
 - publicly made negative comments about the engineering profession that could reasonably be regarded by the engineering profession as derogatory; and
 - acted in a disgraceful, dishonourable and unprofessional manner.
25. It was further alleged that Engineer A engaged in the practice of professional engineering after declaring to PEO that he was a retired member entitled to a fee remission.
26. It was also alleged that the members were therefore guilty of professional misconduct and/or incompetence as defined in the *Professional Engineers Act*, and breaches of the *Code of Ethics* as defined in Regulation 941.

The Discipline Committee member, in the meeting with the members, reminded them that this was their opportunity to offer an explanation and/or defense for their actions and conduct, and that if they did not accept the Stipulated Order, the matters would proceed to a full Discipline

Hearing before a panel of the Discipline Committee.

The members, in providing an explanation, stated that:

- They had been recruited by the city to sit on an advisory committee with respect to water supply options for the city, and particularly regarding studies and the preparation of a Class Environmental Assessment. Engineer A specifically stated that he had been recruited to oppose the staff recommendation of the first water supply option. Much of the discussion at the water committee centred on the two water supply options.
- The members stated to the Discipline Committee member that, in their opinion, the professional engineers on the staff of the city had predetermined the outcome of the studies; that they had decided that the first water supply option was to be selected; that they had instructed the consultants retained by the city to bring in findings consistent with this direction; and that the consultants had complied with this request and biased their findings. Engineer A further indicated that in his opinion, the consultants retained by the city were not competent in estimating energy costs, and the manager of engineering had a hidden agenda with respect to the water supply options. Engineer A further stated that the manager of engineering and the consulting firms were in collusion with instructions to bring forward a predetermined outcome that they knew was not in the public interest.
- The members stated that, based on studies they had completed, it was their opinion that the alternative water supply option was superior to the first option, and they made it their mission to have the recommendations of the consulting firms and the city staff reversed.

The Discipline Committee member considered the available information and the explanations of the members and found the following to be significant:

- Although the members were appointed to the water committee initially as a community member and an engineering resource person to steer the studies and advise staff, they far exceeded that role. The members provided alternative designs to those prepared by the city’s consultants, with detailed analyses, capital and operating cost estimates, and analysis and recommendations of degree of risk and redundancy.
- The members were providing engineering services to a high level of detail. In all these engineering activities, the members worked in close cooperation and, in fact, represented to the water committee and the public that they were acting in concert.
- The members held out publicly, in forums other than meetings of the water committee, that their designs, analysis and recommendations were superior to those provided by the city’s consultants.
- In a live telephone interview with a local radio station, Engineer B publicly accused the city’s manager of engineering, who was a professional engineer, of telling half-truths and lies with respect to engineering issues for the water supply options.
- In a letter to the editor published in a local newspaper, Engineer B implied that the city’s administration and its consultants were involved in a conspiracy to obtain approval for a water supply option that was not in the public’s best interest.
- Engineer A presented a proposal to the city that included a siphon that clearly could not work. Under questioning during the interview, it

became apparent to the Discipline Committee member that Engineer A's knowledge of hydraulics was extremely limited. Engineer A acknowledged that he had never designed a water treatment plant.

7. Engineer A held himself out to have considerable expertise in cost estimating to the point where he publicly represented that his expertise in this area was greater than any of the project consultants retained by the city. However, when interviewed by the Discipline Committee member, he revealed that, for example, he estimated the electrical costs at water treatment plants by simply using 13 per cent of the total cost.
8. Although Engineer B had been a senior civil servant and taught water treatment to technology students, there was little evidence of his depth of training and experience as being sufficient to support the breadth and depth of the designs and analyses that he presented to the water committee and to the public.

Based upon the foregoing, the parties have agreed that there is a basis to believe that the members would be found guilty of professional misconduct and had breached sections of Ontario Regulation 941, specifically:

- (a) **Section 72(2)(j): conduct or act relevant to the practice of professional engineering that, having regard to all the circumstances, would reasonably be regarded by the engineering profession as disgraceful, dishonourable or unprofessional;**
- (b) **Section 77(2)(iii): a practitioner shall ... not express publicly, or while the practitioner is a witness before a court, commission or other tribunal, opinions on professional engineering matters that are not founded on adequate knowledge and honest conviction;**

- (c) **Section 77(7)(i): a practitioner shall ... act towards other practitioners with courtesy and good faith;**
- (d) **Section 77(7)(iii): a practitioner shall ... not maliciously injure the reputation of another practitioner.**

The Discipline Committee member, after careful review of all the provided information, has offered, and the members have agreed to, the following Stipulated Order:

1. **that the members be reprimanded for their behaviour in this matter; and**

2. **that the Stipulated Order and Reasons be published in summary but without reference to names or identifying details.**

The Decision and Reasons documents were dated November 4, 2004 and were signed by the Discipline Committee member, William Walker, P.Eng. The Stipulated Order document for Engineer A was dated March 12, 2005 and was signed by William Walker, P.Eng., and Engineer A. The Stipulated Order document for Engineer B was also dated March 12, 2005 and was signed by William Walker, P.Eng., and Engineer B.

Decision and Reasons

In the matter of a discipline hearing under the *Professional Engineers Act* and in the matter of a complaint regarding the conduct of:

A Member

of the Association of Professional Engineers of Ontario.

This matter came on for hearing before a panel of the Discipline Committee on Wednesday, July 7, 2004 at the Association of Professional Engineers of Ontario (the "association") in Toronto. The association and the member were each represented by legal counsel.

The Allegations

In a Notice of Hearing dated April 1, 2004 (Exhibit #1) it was alleged that the member was guilty of professional misconduct as defined in Regulation 941.

Agreed Facts

Counsel for the association advised the panel that agreement had been reached on the facts and introduced an Agreed Statement of Facts that provided as follows:

1. The member was at all material times a member of the Association of Professional Engineers of Ontario.
2. In or about July 2001, the owner of two properties in Toronto, Ontario (the "owner"), retained