

## SUMMARY OF DECISION AND REASONS

In the matter of a 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, and A HOLDER of a Certificate of Authorization.

This matter came on for hearing before a single-member panel of the Discipline Committee on May 24, 2006 at the Association of Professional Engineers of Ontario (the association) in Toronto. All parties were present and represented by legal counsel.

### THE ALLEGATIONS

The allegations against the member and the Certificate of Authorization holder (the holder) in the Fresh Notice of Hearing dated April 6, 2005, were as follows:

It is alleged that the member and holder are guilty of professional misconduct, the particulars of which are as follows:

1. The member was, at all material times, a member of the Association of Professional Engineers of Ontario.
2. The holder was, at all material times, the holder of a Certificate of Authorization to offer and provide to the public services within the practice of professional engineering. The member was the professional engineer responsible for the services provided by the holder.
3. In or about late 1996, a free-standing 10-ton bridge crane was installed at an industrial facility in Ontario. The crane was designed and installed by Company A, based in Ontario. The owner of the industrial facility retained the member and holder to design the crane column footings. The length of this original crane installation was approximately 60 feet over two bays.
4. In or about early 1997, an addition to the building was constructed and the runways (rails) for the crane were to be extended into the addition. The rails were to be extended by three bays to make a total length of approximately 160 feet. The footings for the building addition and the extended crane rail support columns were designed by Engineer A for the owner of the industrial facility.
5. On May 21, 1997, Engineer A sent a fax to a representative of the owner of the industrial facility requesting confirmation from Company A of the pier loading that it had calculated. Engineer A had used data from a general crane fact sheet provided by Company A. Engineer A included his own calculations in the fax.
6. On May 21, 1997, a representative of Company A provided more details about the loads imposed on the crane wheels and loads on the piers by fax to Engineer A. After reviewing the information, Engineer A discovered that the loads used in Company A's design were significantly lower than those he used in his calculations.
7. On July 4, 1997, Engineer B, an employee of Company A, sent a fax to a representative of the owner of the indus-

- trial facility with drawings showing the proposed layout of the crane rail, the crane column locations and the loads on the rail and columns. The drawings were sealed and initialled by Engineer B. Engineer A reviewed Engineer B's drawings and found no bending moments were shown at the base of the crane columns.
8. Engineer A responded to Engineer B by fax on July 15, 1997, confirming a telephone conversation between them. In that response, Engineer A provided corrections to Engineer B's drawings. Engineer A indicated the correct vertical crane wheel loads onto the rails to comply with the requirements of the Ontario Building Code.
  9. On July 18, 1997, Engineer B sent a fax to Engineer A that contained drawings and calculations by Engineer C, a welding engineer for Company A, that addressed the bending moments. Engineer C had been tasked to conduct a crane column strength check and base modification. The drawings and calculations were for two different solutions. The single page containing the calculations for both solutions was sealed and signed by Engineer C. Engineer B also asked Engineer A to accept the proposed solutions and whether the solution was required on both the new and existing columns.
  10. On July 18, 1997, Engineer A sent a fax to Engineer B questioning the proposed solutions by Engineer C. Specifically, Engineer A asked about the details of the proposed plates, anchor bolts, and type of adhesive or grout; the elevation showing the proposed knee braces and internal and external boundary conditions; the details of the proposed bracing system; the details of the various load cases for the proposed anchor bolts; the details of the proposed floor plates; and how the transverse moment in the columns in the old part of the building was proposed to be eliminated.
  11. On July 22, 1997, a law firm acting on behalf of the owner of the industrial facility, advised the owner to refrain from installing and using the crane until the owner and Engineer A were satisfied that sound engineering practices had been used to ensure the safety of the crane installation and operation.
  12. By fax dated July 23, 1997 to Engineer A, a representative of the owner provided additional calculations by Engineer C. The calculations were sealed but not signed by Engineer C.
  13. By fax dated July 25, 1997 to Engineer B, Engineer A asked numerous questions regarding some of the assumptions, and the basis for design decisions and anchorage details contained in the drawings and calculations by both Engineer B and Engineer C. Engineer A also requested that the drawings for the project be revised to reflect actual field conditions and that additional information be provided regarding anchor bolts and bracing member sizes.
  14. On August 5, 1997, Engineer D provided a report to the owner regarding the crane installation. Engineer D was retained by the owner to provide independent opinions on the establishment of the design loads on the crane, the structural adequacy of the crane column footings and the proposed methods of structural reinforcement. Engineer D provided the following conclusions:
    - (a) The crane frame design should be re-examined using loads and moments established by Engineer D;
    - (b) Certified drawings showing all details of the crane design should be submitted to the chief building official;
    - (c) Any findings of under-design were to be addressed by proposals for structural improvement;
    - (d) The adequacy of the footings in the original part of the building should be evaluated immediately;
    - (e) Any remedial work for the footings should be carried out immediately;
    - (f) Both the rail beams and crane columns should be checked for strength and stability using the loads established by Engineer D; and

- (g) The solution proposed by Engineer C was not complete in that incorrect assumptions had been made.
15. By fax dated August 11, 1997 to the owner, a representative of Company A stated that plates would be installed on the floor slab in the new portion of the building to help transfer the bending moments to the floor slab. He also requested that the owner provide Company A with the findings of the old portion of the building, as well as the solutions recommended by Engineer D.
16. On August 12, 1997, the owner sent a fax to Company A providing calculations done by Engineer C that showed that cross-bracing was not required. The calculations were sealed and signed by Engineer C. The owner indicated that the floor plate size had been increased.
17. On August 13, 1997, Engineer D sent a fax regarding the calculations by Engineer C. Engineer D indicated that the crane frame must be braced and that Engineer C had not accounted for the force and moment in the longitudinal direction. Engineer D also indicated that Engineer A should be consulted regarding the capability of the footings in the new part of the building to accommodate the anchor bolts for the proposed floor plate solution since Engineer A had designed the footings.
18. On August 14, 1997, Company A responded in a fax to the owner regarding Engineer D's comments of August 13, 1997. Company A indicated that drawings sealed and signed by Engineer C showing the columns, bracing, rail beams and added floor plates would be submitted for further review. Also, the adequacy of the footings in the original building to resist the transverse moment was discussed. Company A proposed installing A-frame braces on each crane column and bolting the A-frames to the floor instead of modifying the footings.
19. On August 14, 1997, Engineer A responded to the August 12, 1997 fax by the owner and Engineer C. Engineer A asked that the limit states design method be used instead of the working stress approach so that the requirements of the Ontario Building Code would be met. Engineer A expressed concern about the A-frame proposal. Engineer A also requested an update regarding the remedial work on the footings in the original part of the building.
20. On September 2, 1997, Engineer E, an employee of Company A, requested the member to verify and certify the crane columns and rail and to propose any solutions to deficiencies that were still outstanding. Also, the member was requested to design and certify the anchoring/footing of columns in the old part of the building, and anchoring of columns in the new part of the building, all based on design agreed to by all parties.
21. A meeting of all concerned parties was held on September 8, 1997 to resolve the issue of the adequacy of the crane frame and footing design.
22. By fax dated September 12, 1997 to Engineer E, the member provided several recommendations to resolve the issue of the adequacy of the crane frame and footing design that the parties suggested. The recommendations were supported by drawings and calculations sealed and signed by the member.
- By fax dated September 15, 1997 to PEO, Engineer E stated that the September 8, 1997 meeting achieved the following results:
- The member certified the rail system supplied by Company A;
  - Modifications were to be made to the footings in the old part of the building to resist the transverse moment created by the crane movement;
  - The modifications to the footings were designed by the member and were to be reviewed by a third party and by Engineer A;

- (d) A K-brace was to be added between two of the crane columns on each side of the crane rail to reduce the longitudinal moment on the footings;
  - (e) Base plates were to be installed at the base of the crane columns at the floor elevation in the new part of the building with anchor bolts to transfer the loads from the base plates to the footings; and
  - (f) The base plate and anchor system were to be designed by the member and reviewed by Engineer A.
23. By letter dated October 21, 1997, to Company A, Engineer C indicated that the additional measures taken on this installation were not necessary.
  24. The existing portion of the crane rail was modified by adding K bracing to the column frames, steel plates at the column bases of the steel structure, and adding new footings to the existing ones. The steel structure of the new addition was treated similarly.
  25. By November 1997, Engineer B was no longer with Company A. Also, Company A discontinued the contract with Engineer C as a welding engineer for Canadian Welding Bureau (CWB) certification.
  26. PEO retained a third party expert to review the crane beams and columns designed by Engineer B and Engineer C. On January 24, 2000, the expert provided PEO with his expert review report. The expert concluded that the design by Engineer B and Engineer C did not meet the Ontario Building Code requirements. Therefore, the reaction values given to the member were erroneous and resulted in an inadequate footing design for the existing portion of the structure.
  27. On November 17, 2005, PEO's expert provided a report regarding the standard of practice of the member and holder.
  28. In summary, it appears that the member and holder:
    - (a) provided a grossly inadequate footing design for a free-standing crane supporting structure (based on a vertical load only) that required a design that also needed to support horizontal shears and overturning moments from the overhead crane above;
    - (b) provided inadequate anchor bolt design anchorage/confinement for the two-way cantilever crane supporting structure;
    - (c) failed to maintain the standards that a reasonable and prudent practitioner would maintain in carrying out design work in a professional manner; and
    - (d) failed to make reasonable provision for the safeguarding of property of a person who may be affected by the work for which the practitioner is responsible.
  29. By reason of the facts aforesaid, it is alleged that the member and holder are guilty of professional misconduct as defined in section 28(2)(b) of the *Professional Engineers Act* (the act), R.S.O. 1990, Chapter P.28.
  30. "Professional misconduct" is defined in section 28(2)(b) as:  
"The member or holder has been guilty in the opinion of the Discipline Committee of professional misconduct as defined in the regulations."
  31. The sections of Regulation 941 made under the said act and relevant to this misconduct are:
    - (a) SECTION 72(2)(A): negligence as defined at section 72(1): In this section "negligence" means an act or an omission in the carrying out of the work of a practitioner that constitutes a failure to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances;
    - (b) SECTION 72(2)(B): 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
    - (c) SECTION 72(2)(D): failure to make responsible provision for complying with applicable

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statutes, regulations, standards, codes, bylaws and rules in connection with work being undertaken by or under the responsibility of a practitioner.

#### **PLEA BY MEMBER AND HOLDER**

The member and holder admitted the allegations of professional misconduct, as set out in the Fresh Notice of Hearing. The panel conducted a plea inquiry and was satisfied that the admissions were voluntary, informed and unequivocal.

#### **AGREED STATEMENT OF FACTS**

Counsel for the association and counsel for the member and holder advised the panel that agreement had been reached on the facts and that the factual allegations, as set out in the Fresh Notice of Hearing, were accepted as accurate and could be treated as an Agreed Statement of Facts (ASF).

#### **DECISION**

The panel considered the ASF and found that the facts support a finding of professional misconduct and, in particular, that the member and holder committed an act of professional misconduct, as alleged in the Fresh Notice of Hearing, in that they breached sections 72(2)(a), 72(2)(b) and 72(2)(d) of Regulation 941 made pursuant to the *Professional Engineers Act*, R.S.O. 1990, c. P.28 and, as such, are guilty of professional misconduct, as defined in section 28(2)(b) of the act.

#### **REASONS FOR DECISION**

The panel accepted the plea which, along with the ASF, substantiated the panel's findings of professional misconduct.

#### **PENALTY**

Counsel for the association advised the panel that a Joint Submission as to Penalty (JSP) had been agreed upon. Counsel for the association further submitted that there were no allegations of incompetence and there was no reason to dispute the JSP, as it was similar to that in the prior matters. Counsel for the defence submitted that the JSP was similar to that proposed in prior matters and

the penalty was acceptable with respect to protecting the public and rehabilitating the member since it was an isolated incident that occurred over 10 years ago, after 36 years in practice.

#### **PENALTY DECISION**

The panel accepted the JSP and, accordingly, ordered:

1. that the member and the holder shall be reprimanded and the fact of the reprimand shall be recorded on the register for a period of six months from the date of the hearing;
2. that a summary of the proceedings shall be published in Gazette without reference to names;
3. that the member shall write and pass the professional practice examinations, parts A and B (the examinations) within 12 months of the date of the discipline hearing;
4. that, in the event the member fails to write and pass the examinations within 12 months of the date of the discipline hearing, his licence and the Certificate of Authorization of the holder shall be suspended until he writes and passes the examinations;
5. that, in the event the member fails to write and pass the examinations within 24 months of the date of the discipline hearing, his licence and the Certificate of Authorization of the holder shall be revoked; and
6. that the member and the holder shall pay the costs of the proceeding fixed in the sum of \$1,500 within six months of the date of the hearing.

The panel concluded that the proposed penalty is reasonable and in the public interest. The member and the holder have co-operated with the association and, by agreeing to the facts and a proposed penalty, have accepted responsibility for his/its actions.

The Decision and Reasons in the matter were signed by Anthony Warner, P.Eng., on July 15, 2008 as the chair and single member of the discipline panel.

## DISCIPLINE HEARING SCHEDULE

This schedule is subject to change without public notice. For further information contact PEO at 416-224-1100; toll free 800-339-3716.

Any person wishing to attend a hearing should contact the tribunal office at extension 1083.

All hearings commence at 9:30 a.m.

Note: These are allegations only. It is PEO's burden to prove these allegations during the discipline hearing. No adverse inference regarding the status, qualifications or character of the licence or Certificate of Authorization holder should be made based on the allegations listed herein.

### DECEMBER 2-3, 2008

STUART E. CARTER, P.ENG., and QUINTE-ECO CONSULTANTS INC.

It is alleged that Carter and Quinte-Eco Consultants Inc. are guilty of professional misconduct as defined in section 28(2)(b) of the *Professional Engineers Act*. It is further alleged that Quinte-Eco Consultants Inc. is guilty of professional misconduct as defined in section 28(2)(a) of the *Professional Engineers Act*.

### DECEMBER 10-11, 2008

JOHN D. HUBBERT, P.ENG., and J.D. HUBBERT ASSOCIATES LTD.

It is alleged that Hubbert is guilty of incompetence as defined in section 28(3)(a) of the *Professional Engineers Act*. It is alleged that Hubbert and J.D. Hubbert & Associates Ltd. are guilty of professional misconduct as defined in section 28(2)(b) of the *Professional Engineers Act*.

# ENGINEERING LICENSING BODY OBTAINS ORDER AGAINST NIAGARA FALLS-AREA MAN

On October 2, 2008, Professional Engineers Ontario obtained an order, plus costs in the amount of \$3,500, against Rajca Jan, requiring that he refrain from holding himself out as engaging in the practice of professional engineering or offering services to the public that are within the practice of professional engineering. Further, he must refrain from using the titles "engineer," "professional engineer" and "P.Eng." The order was obtained under the *Professional Engineers Act* (PEA) in the Ontario Superior Court of Justice at Osgoode Hall in Toronto.

Jan has never held a licence to practise professional engineering or a Certificate of Authorization from PEO.

Under the PEA, only individuals who are licensed as professional engineers by PEO or who hold a temporary licence from PEO may represent themselves as professional engineers, use the titles "professional engineer" or "engineer" and engage in the practice of professional engineering. Only those individuals or firms that hold a Certificate of Authorization from PEO may engage in the business of offering or providing services that are within the practice of professional engineering to the Ontario public.

PEO brought the application after receiving information from a prospective employer who had received Jan's resume in response to an advertisement for a design engineer in the Niagara region. The prospective employer specializes in the design and manufacture of large pressure tanks for the oil and gas industry.

In the resume, Jan held himself out as, among other things, a "senior design mechanical engineer," "consulting engineer" and an "R&D design engineer." A representative of the employer contacted PEO and learned that Jan, in fact, had never held a licence to practise engineering.

Neil J. Perrier of Perrier Law Professional Corporation represented PEO on the application.

After reviewing the affidavit evidence and hearing from Perrier, the Honourable Justice O'Marra found Jan had breached several sections of the PEA and ordered that he refrain from engaging in the practice of professional engineering and/or from holding himself out as engaging in the business of providing to the Ontario public services that are within the practice of professional engineering unless he obtains a licence or a Certificate of Authorization from PEO.

Eric Newton, manager, enforcement and prosecutions at PEO, told *Engineering Dimensions* that proceedings in the matter were commenced after attempts to contact Jan and bring him into compliance with the PEA were unsuccessful.

# ENFORCEMENT EXPLAINED

This column aims to educate members about some of the issues PEO faces in protecting the public against unlicensed individuals who engage in the practice of professional engineering, and in enforcing the title protection provisions of the *Professional Engineers Act*.

By Steven Haddock

**Q.** I see lots of companies using “engineering” in their names that don’t appear to be authorized by PEO. I also see courses being advertised for “engineers” that obviously aren’t targeting professional engineers, and a lot of companies promoting themselves using the word “engineers” when they obviously aren’t professional engineers. Why isn’t PEO doing more to stop these people?

**A.** Several names of organizations come up time and again in complaints PEO receives. In many cases, we determine that we don’t have any grounds to challenge the names of these companies or, worse still, have previously challenged a name and lost. Although we could bring legal action against some of these organizations, experience tells us that it would be an expensive, time-consuming and ultimately losing proposition.

The use of the words “engineer” and “engineering” is controlled by several different acts, including our own *Professional Engineers Act* (PEA), the *Business Corporations Act* and the federal *Trade Marks Act*. However, none of these acts gives PEO an

absolute monopoly over the use of the words “engineer” or “engineering.” Each of these statutes contains exceptions—sometimes explicit, sometimes vague—that may allow unlicensed people and unauthorized firms to use these names freely.

For example, with business and corporate names, the use of “engineering” or “engineer” in a name may be acceptable if the name does not suggest the practice of the profession. In 2002, PEO challenged the use of the word “engineering” in the name of a bankruptcy liquidation firm and lost, primarily due to the presence of other terms in the name that the company was using to describe its business operations.

Since that time, PEO has successfully challenged dozens of other company names, but we steer clear of names of companies that don’t suggest the practice of engineering.

When a company uses the words “engineering” or “engineers” to promote their services, a different set of rules comes into play. Section 40(3) of the PEA does prohibit any term that will lead someone to believe that a firm is authorized to offer and provide professional engineering services to the public, but allows the use of “engineering” when it is clear that a firm does not engage in or provide professional engineering services. For example, self-help organizations, auto mechanics and office equipment repair shops fall into this category.

Engineers Canada administers the “engineer” and “engineering” official marks on behalf of PEO and the other provincial engineering associations. However, although Engineers Canada has had some success in protecting these words, it also acknowledges that they are only protected when they refer to the practice of engineering.

Finally, PEO has no control over how “engineer” and “engineering” are used by post-secondary institutions, whether public or private. Course and program names are not covered by the PEA. The act covers only occupational designations and business names, whereas course names are approved by the ministry of training, colleges and universities.

The ministry is not bound in its approval of course names by the accreditations provided by the Canadian Engineering Accreditation Board (CEAB). Instead, it relies on another independent accreditation board that uses different criteria than the CEAB, to determine whether a course meets the requirements for accreditation as a certificate, diploma or bachelor’s degree.

However, PEO has, on occasion, required educational institutions to post disclaimers that their programs are not CEAB-accredited and therefore do not fulfill PEO’s education requirement for licensure.

Please report any person or company you suspect is violating the act. Call the PEO enforcement hotline at 416-224-9528, ext. 1444 or 800-339-3716, ext. 1444. Or email your questions or concerns to [enforcement@peo.on.ca](mailto:enforcement@peo.on.ca).

