DECISION AND REASONS

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990, c. P.28; and in the matter of a complaint regarding the conduct of JIRI KRUPKA, P.ENG., a member of the Association of Professional Engineers of Ontario, and CAELLIOTT INC., a holder of a Certificate of Authorization.

A panel of the Discipline Committee met at the Association of Professional Engineers of Ontario in Toronto on October 23 and 24, 2013 to hear this matter.

THE ALLEGATIONS

The allegations against Jiri Krupka, as stated in the Statement of Allegations filed on July 3, 2012, and referred to in the Notice of Hearing dated October 3, 2013, are that Jiri Krupka and CAElliott are guilty of professional misconduct under section 28(2)(b) of the *Professional Engineers Act* (the act), and that Jiri Krupka is guilty of incompetence under section 28(3)(a), as defined in the act.

The allegations, as set out in the Statement of Allegations, are reproduced below:

1. Jiri Krupka, P.Eng. (the member), is a professional engineer licensed pursuant to the *Professional Engineers Act* (the act), and CAElliott Inc. (CAElliott) is a Certificate of Authorization holder under the act. The member was employed by CAElliott from July 2008 to July 2010.

2. At all material times, the complainant, Ian Fuller, P.Eng. (Fuller), was a structural engineer employed by Halsall Associates Ltd. (Halsall).

3. Prior to November 2009, CAElliott and the member were retained by RNC Anchors, a division of Roofers World, to design anchor facilities/assemblies for installation on a new building to be built at 424 Metcalfe Avenue in Ottawa, Ontario (the project). Fuller was the structural engineer for the project.

4. On November 10, 2009, the member stamped and signed a drawing for a cast-in-place "fall arrest" roof anchor system for maintenance and window cleaning operations at the project.

5. On November 19, 2009, the project architects, Hobin & Associates, requested various revisions to the member's drawing to reflect certain roof details that the member had not considered.

6. On November 23, 2009, Fuller advised the project manager, ZW Group, and the project architects that the member should revisit the calculations and confirm in writing:
   (a) that the single anchor is sufficient to resist the loads; and
   (b) what the embedment depth must be to develop the force in the anchor.

7. Later that day, Fuller spoke directly with the member regarding his drawing. The member admitted he was not familiar with CSA A23.3-04, "Design of Concrete Structures," the standard for connections to concrete. The member told Fuller he intended to rely solely on "pull tests" upon completion of the construction.

8. On November 24, 2009, the member stamped and signed a revised drawing of the roof anchor, incorporating the architects' suggested revisions but omitting any design calculations.

9. On November 25, 2009, Fuller again advised the project manager and project architects that the member should

provide stamped calculations to demonstrate the capacity of the anchor and the adequacy of the load transfer to the concrete slab.

10. On February 20, 2010, the member signed and sealed a revised drawing with the design calculations for the roof anchor. The member's calculations failed to consider the CSA standard, A23.3-04, referred to above.

11. On February 24, 2010, Fuller advised the project architect and project manager that the member's calculations were inadequate and directed the member to the appropriate CSA standard.

12. On March 30, 2010, the member stamped and signed an incomplete set of revised calculations and requested that Fuller provide values for two variables the member deemed necessary to complete his calculations. The values the member requested are, in fact, defined in the CSA standard and should have been known to the member.

13. On April 1, 2010, Fuller wrote to the project manager and project architects regarding his concerns about the performance of the anchors.

14. On June 2, 2010, the member performed a visual inspection and load test on a random sample of the installed roof anchors, and produced an inspection report declaring the anchors "sound." The member did not consider or comply with the appropriate standards in carrying out the load test.

15. On June 3, 2010, Fuller filed a complaint with Professional Engineers Ontario (PEO).

16. On June 29, 2010, PEO learned the member had been designing fall arrest roof anchors for 12 years and had never purchased the CSA-A23.3-04 standard. The member obtained the standard for the first time following Fuller's complaints about his drawing.

17. On August 19, 2010, PEO learned the member did not carry out a periodic site review during the installation of the roof anchors, relying instead on Roofers World's contractor to install the anchors correctly.

18. The member's design, drawings and calculations were examined by an independent engineer. He found the following issues and concerns, among other things:
    (a) The original drawing sealed by the member on November 10, 2009 does not indicate the load that is to be applied to the safety anchor.
    (b) This drawing was deficient in a number of other important ways, including:
        (i) Weld symbols/sizes for the safety anchors were missing;
        (ii) The shown dimensions did not define the line they are referencing;
        (iii) The spacing of the anchors was not in accordance with CSA Standard Z91 "Safety Code for Window Cleaning Operations," as required;
        (iv) There are an insufficient number of anchors shown;
        (v) Details of important components, such as windows and parapets, are not shown;
        (vi) The location of the anchors relative to the structural steel is not shown; and
        (vii) Reinforcing of anchor location at the steel structure is most likely required but there is no indication this has been addressed.
    (c) The calculations shown on the detail, "RA-1 Roof Anchor 424 Metcalfe," sealed February 20, 2010, are not in accordance with CSA Standard 23.3-04, Annex D, as required.
    (d) Subsequent calculations provided by the member, "Fall Arrest Roof Anchors, Cast in Concrete, 424 Metcalfe Street Ottawa," and sealed March 30, 2010, incorrectly stated that Annex D of CSA Standard 23.3-04 does not apply to the anchors in question. Further, the calculations are incomplete.
    (e) On August 23, 2010, the member provided calculations entitled "Fall Arrest Roof Anchor Resistance in Concrete," which utilized a number of incorrect values, including an incorrect load factor.
    (f) For the correct applicable load factor, the member's anchor design is unacceptable. The concrete breakout resistance of the anchor in tension is not satisfied.
    (g) Reliance on mere random testing of the anchors after installation was not a proper or adequate approach. If the anchor design could not be verified by proper engineering calculations, they should all have been tested under in-service conditions.

19. Based on these facts, it is alleged that the member and CAElliott are guilty of professional misconduct, as follows:
    (a) designing or specifying a fall arrest roof anchor system without being aware of, or making reasonable provision for complying

with, the applicable standards, amounting to professional misconduct as defined by sections 72(2)(a), (b) and/or (d) of Regulation 941.

(b) signing and sealing drawings not actually prepared or checked by the practitioner, amounting to professional misconduct as defined by section 72(2)(e) of Regulation 941.

(c) permitting the installation of fall arrest roof anchors without carrying out a periodic site review during their construction as required by the Ontario Building Code, amounting to professional misconduct as defined by sections 72(2)(a), (b) and/or (d) of Regulation 941.

(d) conducting load testing of fall arrest roof anchors without being aware of or making reasonable provision for complying with the applicable CSA standard or Ontario Building Code provisions, amounting to professional misconduct as defined by sections 72(2)(a), (b) and/or (d) of Regulation 941.

(e) undertaking work in the design, installation and testing of fall arrest roof anchors without being sufficiently trained and experienced in concrete design or the applicable codes and standards, amounting to professional misconduct as defined by section 72(2)(h) of Regulation 941.

(f) undertaking work in the design, installation and testing of a lifesaving device without the care and professionalism required of a professional engineer, amounting to professional misconduct as defined by section (72)(2)(j) of Regulation 941.

20. Based on these facts, it is further alleged that the member is guilty of incompetence, as follows:

(a) undertaking work in the design, installation and testing of fall arrest roof anchors that displays a lack of knowledge, skill and judgment and a disregard for the welfare of the public, amounting to incompetence as defined by section 28(3)(a) of the act.

Clauses 1 through 11, as well as clauses 13, 15 and 16, were agreed upon or admitted to by the member.

THE LEGISLATIVE AND REGULATORY PROVISIONS

Section 28(2)(b) of the act is reproduced below:

Professional misconduct

(2) A member of the association or a holder of a certificate of authorization, a temporary licence, a provisional licence or a limited licence may be found guilty of professional misconduct by the committee if,

. . .

(b) the member or holder has been guilty in the opinion of the Discipline Committee of professional misconduct as defined in the regulations. R.S.O. 1990, c. P.28, s. 28(2); 2001, c. 9, Sched. B, s. 11(36); 2010, c. 16, Sched. 2, s. 5(62).

The sections of Regulation 941 made under the act that are relevant to the alleged misconduct are reproduced below:

Sections 72(2)(a), (b), (d), (e), (h) and (j) of Regulation 941:

72.(2) For the purposes of the Act and this Regulation, "professional misconduct" means,

(a) negligence,

(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,

. . .

(d) failure to make responsible provision for complying with applicable statutes, regulations, standards, codes, bylaws and rules in connection with work being undertaken by or under the responsibility of the practitioner,

(e) signing or sealing a final drawing, specification, plan, report or other document not actually prepared or checked by the practitioner,

. . .

(h) undertaking work the practitioner is not competent to perform by virtue of the practitioner's training and experience,

. . .

(j) conduct or an 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. R.R.O. 1990, Reg. 941, s. 72(2); O. Reg. 657/00, s. 1(2); O. Reg. 13/03, s. 19.

Section 28(3)(a) of the act is reproduced below:

Incompetence

(3) The Discipline Committee may find a member of the association or a holder of a temporary licence, a provisional licence or a limited licence to be incompetent if in its opinion,

(a) the member or holder has displayed in his or her professional responsibilities a lack of knowledge, skill or judgment or disregard for the welfare of the public of a nature or to an extent that demonstrates the member or holder is unfit to carry out the responsibilities of a professional engineer;

With respect to section 72(2)(j), the association clarified that it was alleging that the member's conduct was "unprofessional," and that it was not alleging the conduct was "disgraceful" or "dishonourable." At the end of the hearing, the association withdrew its allegation under section 72(2)(e).

The codes, standards and guidelines that were referred to in evidence and that are referred to throughout the decision are:

1. Ontario Regulation 350/06 Building Code
2. National Standard of Canada CAN/CSA-Z91-02 Health and Safety Code for Suspended Equipment Operations
3. National Standard of Canada CAN/CSA-Z71-98 Safety Code for Suspended Elevating Platforms
4. Ontario Window Cleaning Guidelines: Roof Anchorage for Fall Arrest Systems and Tiebacks for Suspended Equipment and Primary Support
5. *Ontario Occupational Health and Safety Act*, R.R.O. 1990, Regulation 859: Window Cleaning
6. National Standard of Canada CAN/CSA-A23.3-04 Design of Concrete Structures
7. National Standard of Canada CAN/CSA-A23.3-04 Design of Concrete Structures: Annex D–Anchorage

PLEA OF THE MEMBER

The member denied that he was guilty of professional misconduct or incompetence, as set out in the Statement of Allegations.

PLEA OF THE HOLDER

During the hearing, CAElliott, the Certificate of Authorization holder, admitted to the allegations made against it and to professional misconduct. The panel conducted a plea inquiry of CAElliott. The panel was satisfied that the admission of CAElliott was voluntary, informed and unequivocal. CAElliott did not have legal representation.

THE EVIDENCE WITH RESPECT TO THE MEMBER

The association called two witnesses: 1. Ian Fuller, P.Eng., who was the structural engineer for Halsall, the general contractor in charge of the project; and 2. Josef Budziak, P.Eng., who testified as an expert witness. The member gave evidence on behalf of himself. CAElliott did not call any witnesses and admitted to the facts and the allegations, as set out in the Statement of Allegations.

OVERVIEW

The member was employed by CAElliott for the period between July 2008 and July 2010. He was the responsible engineer for CAElliott and obtained the Certificate of Authorization for CAElliott. The allegations relate to the design and installation of a roof anchor system on a new eight-storey building that was constructed in downtown Ottawa and, more specifically, to the installation of anchors in the reinforced concrete portion of the roof. Prior to November 2009, CAElliott and the member were hired by RNC Anchors, a division of Roofers World, to design anchor facilities/assemblies for installation in the building. Halsall Associates Ltd. (Halsall) was the project manager for the project.

During the construction process, Ian Fuller, a structural engineer employed by Halsall, identified concerns with respect to the anchor system designed by the member. The anchors in question were a series of anchors that would be used by window washers and building maintenance people to attach equipment for the purpose of hanging from the building to wash windows and do maintenance to the outside of the building. The particular type of anchors were cast in place by first being attached to reinforced bars (rebar) and encased in the concrete, which would then be poured. The anchors are a threaded rod in the shape of an "L." The bottom of the "L" is attached to the rebar and then encased in concrete. The top of the "L" protrudes out of

the concrete. A cap is placed on top of the "L" and securely attached to the L-shaped rod and to the roof. The anchors are used by the window washers and maintenance people to attach to the roof.

Prior to the installation of the anchors, the member admitted he was not familiar with CSA A23.3-04, "Design of Concrete Structures." The member submitted revised drawings on more than one occasion prior to the installation of the anchors in the roof. None of the drawings provided sufficient calculations to establish that the design of the anchors met with the standards set out in CSA A23.3-04. The member did not attend to inspect the anchors when they were fastened to the roof or when the concrete was poured. The member addressed the concerns raised about his drawings by stating he would be relying solely on pull tests to establish the safety of his anchors. The member did conduct random tests of the anchors following installation.

The association took the position that the anchors did not comply with applicable building codes and applicable CSA standards. They described the issue as having to do with the design and installation of anchors, with public safety and with the need for a design to show that certain minimum standards have been met to ensure public safety. Specifically, the association took the position that it was necessary for the member to establish that the minimum standards had been met using specific sets of calculations based on CSA A23.3-04. It was their position also that it was the member's responsibility to design the anchors in a manner that satisfied all codes, regulations and standards and that doing so required he prove by both calculations and testing that the design met those standards, as well as ensure they were properly installed. The member took the position that he had sufficient information based on past experience and on his judgment as an engineer that his anchors were properly designed and met required safety standards. He argued that CSA A23.3-04 did not apply in the circumstances or that, if it did, his design was based on a design that was CSA approved. It was his position, in addition, that pull tests were sufficient to establish the safety of the anchors. He did not argue that he was not responsible for the design of the anchors but did suggest the building engineer should have provided him with the figures he needed to use for his calculations. There was no evidence the roof anchors that were actually installed were deficient or substandard. The issue is one of whether the procedure used to ensure the safe installation of the anchors met the standard required of a professional engineer and whether the member met that standard. To answer that question, the panel considered three separate questions:

1. Was the member responsible for ensuring the safety of the anchors in terms of both the design of the anchors and attachment of the anchors to the concrete slab?

2. What was the correct standard to be applied, and was the member required to be aware of it?

3. Was the member required to prove the safety of his design by both calculations and testing, or was testing alone sufficient?

THE EVIDENCE

THE COMPLAINANT: IAN FULLER

The first witness called by the association was Ian Fuller. At the time he gave his evidence, he was a project manager for Halsall. He has been a member of the Association of Professional Engineers of Ontario since 2002 and has been practising since he became a member. He has been with Halsall since January 2006 in essentially the same position. In that role, he acts as supervising engineer for building design. There are people who report to him who include other professional engineers. He obtained a bachelor in civil engineering at Carleton University in 1997 and a master's degree, also from Carleton University, in 1999. He specialized in structural engineering and testified he has designed anchor systems.

With respect to the building in question located at 424 Metcalfe Street in Ottawa, Ontario, Halsall was the structural engineer and was responsible for the base building. It was brand new construction. Halsall was engaged by the architect, Barry J. Hobin, in late November or December 2007. Fuller was the project manager. His role was supervising engineer for the base building design. The anchor system was excluded from Halsall's scope of work. The roof design for the eight-storey building was in Halsall's scope of work. It was a reinforced concrete roof supported on columns with a penthouse roof in metal. Window washing was to be done by swing stage platform, which goes up and down the sides of the building.

THE EXPERT: JOSEPH BUDZIAK

The association also called Joseph Budziak as an expert witness and asked that he be qualified as an expert in design, fabrication and installation of roof anchor systems. Budziak gave evidence that he had

designed approximately 50 anchor systems per year for the past 10 years, or approximately 500 anchor systems. The majority of the anchor systems he had installed were cast in concrete and installed on buildings of eight storeys or more. Budziak confirmed he was a member in good standing of Professional Engineers Ontario since June of 1996. He is the president, chief engineer and owner of Ankor Engineering Systems Ltd., which changed its name to Ankor Engineering Systems Inc., effective January 1, 2012. He was also a co-owner of AnkorEng Inc. from May 2001 to the present. Both companies are holders of Certificates of Authorization, and have been since their inception. Budziak's qualifications as an expert were admitted by the member.

The panel qualified Budziak as an expert in design, fabrication and installation of roof anchor systems.

JIRI KRUPKA: THE MEMBER

The member cross-examined the witness and gave evidence on behalf of himself. He had designed anchors since 1988 or 1989, and that hundreds of anchors designed by him had been used and never failed.

Was the member responsible for ensuring the safety of the anchors in terms of both the design of the anchors and attachment of the anchors to the concrete slab?

Fuller gave evidence regarding the scope of work and that the responsibility for the roof anchors and safety restraints was with the component engineer, and that both calculations and test results were expected to be provided prior to installation of the anchors. He also referred to section 1.7 of the scope of work and testified that it was his expectation the requirements would be complied with, and that it was the responsibility of the component engineer to submit test results, calculations and conduct inspections of the installation of the anchors.

Fuller gave evidence that was confirmed by the member that the anchorage into the concrete was the member's responsibility, not Fuller's or Halsall's, as it was in the member's scope of work. Fuller further testified that, in that conversation, the member openly expressed he was not familiar with CSA A23.3-4, "Design of Concrete Structures." This fact was not disputed or challenged by the member and no contradictory evidence in that regard was given by the member.

Budziak expressed that, in his opinion, the base building engineer is responsible for the building and for the concrete slab. The component engineer is responsible for the design and installation of the anchors to the slab. He explained that if an engineer is designing an anchor, the engineer would have to provide a method of fastening the anchors such that the base building does not have to be altered. In the case of a reinforced concrete roof, the anchor gets embedded in the concrete. The component engineer is responsible for embedding the anchor into the concrete so that it will withstand the required maximum loading without causing the concrete to crack.

What was the correct standard to be applied, and was the member required to be aware of it?

The member gave evidence that he chose a design based on a manufacturer's catalogues. He based his design on a CSA-approved anchor designed by Thaler, although he did not use their actual design. Rather, his design was a modification of the Thaler design. He stated he was not negligent because he chose a standard that was used by other engineers for many years. He stated that he studied all of the regulations.

According to Fuller, the structure was designed under Part 4 of the *Building Code Act*, 1992, O. Reg. 350/06 (building code). Specifications for the anchors were issued by the architect. Fuller pointed out that, according to the scope of work, 1.2.5, the roof anchors and safety restraints were to be "cast-in-place" concrete: restraint anchors and posts anchored to concrete deck. He further pointed out that, at 1.3.5, "All anchors must conform to the requirements of CSA/CAN Z91-02 Health and Safety Code for Suspended Operations (CSA/CAN Z91-02) and the Ontario Ministry of Labour regulations 527/88, revised September 26, 1991.

Fuller testified that CAN/CSA A23.3-4 Design of Concrete Structures (CSA A23.3-4) is, and was, at the relevant time the common standard for concrete design. According to Fuller, this standard applied to these roof anchors because it is the standard that applies to roof anchors connected to reinforced concrete, and the anchors being designed by the member were being installed into reinforced concrete. He explained that this standard applied a

material resistance factor that allows for statistical variation in the concrete, which is not of uniform strength throughout the roof slab. There was no dispute that the anchors in question were being installed into reinforced concrete.

The member gave evidence that the anchors conformed to and exceeded the requirements of Ontario Ministry of Labour regulations and CSA Z91-02. Fuller pointed out that clause 1.1 of CSA Z91-02 refers to CAN/CSA-Z271 Safety Code for Suspended Elevating Platforms (CSA Z271) and that clause 5.4.1 of that same standard states that "tie-back and lifeline anchors shall be in accordance with CAN/CSA-Z271."

Budziak reiterated Fuller's evidence with respect to the relevant standards being CSA Z91-02 and CSA-Z271 which, at clause 6.3.2, provides the factor load that is to be used in the calculations. He also pointed out that, in his opinion, the remaining requirements for the design of cast-in-concrete anchors are found in Annex D to CSA A.23.3-04. He explained that Annex D of that standard provides the rules to design an anchor to sit in concrete. He further explained that, in his opinion, the standard applies to anchor systems generally. It is the one he uses as a minimum standard in all of his designs.

The member confirmed that, in November, shortly before the anchors were installed, he still had not looked at the standards. Fuller did draw his attention to the standard in February 2010 but, according to the member, that was three months too late.

Notwithstanding the lack of calculations, the member explained he had a good feeling about his design. He explained this was because he had been load testing since 1985. He had load tested hundreds of anchors and never measured permanent deformation. The member also testified that his design had been tested by an independent consultant and was found to be safe. This evidence was not challenged by the association.

The member's drawings of the roof anchor system were identified and there was no dispute that the drawings were stamped by the member.

Was the member required to prove the safety of his design by both calculations and testing, or was testing alone sufficient?

Fuller gave evidence that the member had stated he intended to rely on the "pull test," a fact not disputed by the member. What was disputed was whether this test was sufficient. Fuller testified that the "pull test" was inadequate to demonstrate that the anchors were properly designed for the intended use.

The member testified to his concern for human life. He said he had a good understanding of mechanical testing and of the materials. He felt comfortable with his design. He explained he was aware the ropes used to attach to the anchors were nylon ropes with shock absorbers, which act as load limiters, meaning he understood how the anchors would be used in practice. He also spoke with other engineers. He had used the anchors many times. Fuller was the first to question them. He had the anchors tested to 2500lb. There was no deformation. The member gave evidence that he appreciated concrete is not good in tension, which is the reason for putting rebar in the top and bottom layer of the concrete.

The member stated that a person's safety was never an issue and the problem was blown out of proportion. With respect to his drawings, he gave evidence that he always checks his drawings and that he always looks at them. He confirmed he either checked or prepared all of the drawings he stamped.

The member confirmed his design came from a book; that he used it without first doing calculations; that he tested it up to 3500lb, but never tested it up to 5000lb. The member explained he never tested up to 5000lb because this was the maximum load and testing was not done to the maximum load because after that, as was also stated by Budziak, the anchor would no longer be usable. He was asked if he had ever tested his anchor using a prototype and confirmed he had not. He confirmed he did not do the calculations referred to in the regulations. He also confirmed he did not inspect the anchors when they were being installed to ensure they were embedded deeply enough. He confirmed he did not test all of the anchors to 2500lb.

Fuller pointed to CSA Z271-98 at 6.3.2, which states:
"Anchoring systems shall be designed to resist a force, applied in any direction, of

(a) 22.2 kN (5000 lbf) fracture load without fracture and/or pullout, or a 15.6 kN (3500 lbf) factored load; and
(b) 11.1 kN (2500 lbf) without permanent deformation of any component of the anchor system, if subjected to test loading after installation.

Note: Consideration should be given in the design to the effects of deflections in the roofing material."

According to Fuller, the CSA Z271-98 standard set out above involved a two-stage approach. Testing alone was not sufficient. In order to meet the standard, the design engineer had to be able to prove, using calculations that applied the factors set out in CSA Z271-98 above, that the design was adequate and also had to be able to satisfy the load test. In his evidence, the member disputed Fuller's evidence that the requirement was a dual requirement and that the factors he was required to use to prove his design were those set out at 6.3.2 of CSA Z791-98.

According to Budziak, the member should have been aware of CSA A23.3-04. He should have been aware of it because it is the law and it is the relevant standard that applied to the anchors he was responsible for designing. He disagreed with the member's position that random testing after the anchors were embedded was sufficient and can satisfy the requirements of the regulations. According to Budziak, if engineering calculations could not be provided to confirm compliance, then all of the anchors should be tested. It is the worst case scenario that is to be considered in the design calculations, not the smallest load, but ultimately agreed with Fuller that the law required that the anchors be proven by both calculations and testing.

Could the member's design be proven by calculations?

Fuller testified that the member provided drawings dated November 10, 2009 that did not include any calculations. He requested revised drawings, which were submitted on November 25, 2009, and he had expected those drawings to include calculations, but the calculations were not included.

According to Fuller's evidence, the anchors were cast into the concrete in November 2009. It was not until February 22, 2010 that Fuller received resubmitted shop drawings, which were stamped February 20, 2010 by the member. Fuller stated the drawing of RA-1, in particular, the cast-in-concrete anchor, did not satisfy his concerns. He also gave evidence that the calculations that were provided with the drawing were, in his view, inadequate because they did not illustrate the transfer of the load to the concrete. Fuller testified he directed the member to CSA A23.3-04, Appendix D, for guidance on the calculations that, in his opinion, were required to demonstrate adequate anchorage to concrete, but the member maintained he did not have enough concrete information for the two variables. Fuller gave evidence these two variables were the factors referred to in CSA Z291-98 Safety Code for Suspended Elevating Platforms at 6.3.2, that these were not unknown factors. The member repeated, on his calculations dated March 30, 2010, that the concrete resistance factor and the resistance modification factors were unknown and, again, asked for Fuller to specify them. Fuller gave evidence the concrete resistance factors were available in CSA A23.3-04 at clause 8.4.2, and the resistance modification factors were available in Annex D to CSA A.23.3-04 at clause 5.4. He explained that, in his view, the values set out in clauses 8.4.2. and 5.4 are available and should have been known by the member before designing the anchor. He expressed that these values are basic to concrete design. They were not unusual standards. Fuller's evidence was largely unchallenged by the member.

Budziak was asked about the drawing by RNC Anchors that was sealed by the member on November 10, 2009 and whether, in his view, it complied with the standard. In Budziak's opinion, it did not for a couple of reasons:

1. It did not give the breakdowns required by the standard; and

2. The calculations provided were insufficient to demonstrate the safety of the anchors.

Budziak was asked to comment on calculations provided by the member to the project manager that were stamped March 30, 2010. In particular, he was asked to comment on the member's statement that CSA A.23.3-04, Annex D, was non-mandatory because, according to the member, the specified safety levels set out in Annex D:

"are intended for in-service conditions rather than short-term conditions. Hence, the ultimate fracture/pull out load of 5000lb, specified by CSA Z91-02, is not the load to be used in these calculations. Sentence D.1.4 stipulates that load applications that are predominantly high cycle, fatigue, or impact are not covered in Appendix D. The 5000lb load is dynamic-shock/impact load. Hence Appendix D calculations do not apply.

A 2500lb load for a period of 5 minutes is the load the anchors must withstand without permanent deformation and shall be load tested on site. This, however, is still only a short-term load so again, the following calculations are not applicable for the 2500lb load test. Working load is usually limited to 1000lb for suspended equipment and 300lb for lifelines with corresponding safety factors. So the 1000lb load is the load that suits the requirements for Appendix E calculations."

Budziak disagreed with the member's position that Appendix D did not apply, and with the member's position with respect to the loads to be used for testing purposes, and for use in the calculations. Budziak explained the shock load is double the service load. He also disagreed that the anchors were being used for a short-term service load, which he explained would be something like a short-term handling or construction condition. In his opinion, things like window washing and building maintenance were not short-term service loads. The anchors were on the building and would be used at least once a year. For that purpose, 1000lb was way too small. In his opinion, Annex D did apply.

With respect to his March 30, 2010 calculations, the member stated the factors he required to complete his calculations were "unknown." Budziak was asked about that statement. Budziak gave detailed evidence as to how the factors could be found. Budziak disagreed with the member's position that, based on Annex D D.1.4., these anchors were not covered in the standard. According to D.1.4, "Load applications that are predominantly high cycle, fatigue, or impact are not covered by this Annex." Budziak explained that this refers to things like light standards or antennae that are under constant winds, for example. These anchors, in his opinion, did not fall under that exception. Even if the member were correct with respect to these anchors being exempted from Annex D, he did not agree that it was sufficient to use 1000lb in the calculations used to determine the safety of the anchor. Budziak referred to section 4.1.3.1 of the building code, paragraph 1i), which provides:

"factored load" means the product of a specified load and its principal load factor or companion load factor.

The member provided a set of calculations on August 24, 2010 for the purpose of demonstrating the fall arrest roof anchor resistance in concrete. Budziak was also asked to comment on these calculations. As to the member's calculations, he stated they were unreliable. He further commented that some of the values were not correct and that, even using the member's numbers, you could not make the anchors work. What he meant by that was even using all of the member's numbers, if you were to do calculations for all of the types of stresses the anchors were required by the building code to withstand without pulling out of the concrete (pull-out) or without the anchors bending or breaking (fracture) the anchors would still fail.

The member provided a modified design on November 25, 2009 in response to some of the concerns he had been asked to address. The modified design included the addition of a metal plate that was 4"x 4"x ¼" thick. Budziak was asked to comment on this and, again, found that the modified design was insufficient and could not be proven with calculations. According to Budziak's evidence, using the correct values, the member's design for the anchors still failed four of the six tests.

The member stated that he had acquired calculations by Thaler. They sent the calculations unsealed. He stated, in his evidence, there were contradictory requirements in the CSA standards and in the building code but, when pointed to the standards and the building code on cross-examination, he agreed they were the same.

DECISION

The decision was rendered orally at the hearing. The parties requested and the panel agreed to provide reasons for the purpose of allowing the parties to make submissions on penalty. The decision that was rendered orally is set out below. The reasons for the decision follow.

The association bears the onus of proving the allegations in accordance with the standard of proof. The standard of proof applied by the panel was a balance of probabilities, and the panel required that the proof be clear and convincing and based upon cogent evidence accepted by the panel.

WITH RESPECT TO THE MEMBER, JIRI KRUPKA

Having heard the witnesses and considering the evidence, the panel determined that the member, Jiri Krupka, P.Eng., is guilty of professional misconduct pursuant to sections 72(2)(a)(b)(d)(h), and was unprofessional as provided under section 72(2)(j) of Regulation 941 of the act.

The panel accepts the association's proposal that the allegation the member had signed and sealed drawings he had not actually checked be withdrawn and finds the member not guilty of contravening section 72(2)(e).

The panel was not satisfied the burden of proof to support incompetence under section 28(3)(a) of the act was satisfied and, thus, finds the member not guilty of this allegation. The matter related to the member's employment with CAElliott from July 2008 to July 2010. There was no evidence presented with respect to the member's previous designs to satisfy the onus of proof.

WITH RESPECT TO THE CERTIFICATE OF AUTHORIZATION HOLDER, CAELLIOTT INC.

CAElliott employed the member and relied on him solely. CAElliott gave no evidence of its own, having pled guilty. Having found the member guilty, the panel also finds CAElliott guilty of professional misconduct pursuant to sections 72(2)(a)(b)(d)(h), and of having been unprofessional as provided under section 72(2)(j) of Regulation 941 of the act. The panel bases its decision on the evidence presented by the parties.

ISSUES

1. Was the member responsible for ensuring the safety of the anchors in terms of both the design of the anchors and attachment of the anchors to the concrete slab?

2. What was the appropriate standard, and was the member required to be aware of it?

3. Was the member required to prove the safety of his design by both calculations and testing, or was testing alone sufficient?

ANALYSIS: REASONS FOR DECISION

WHO WAS RESPONSIBLE FOR THE DESIGN OF THE ANCHORS?

The panel heard evidence from Fuller, who was the project manager for Halsall, the company responsible for the base building design. Fuller reviewed the scope of work and pointed out that it was within the scope of work of the component engineer to ensure the safe design and installation of the roof anchors. Fuller's evidence was unchallenged by the member and supported by Budziak, the expert witness. The panel found Fuller to be a credible witness. The panel accepts that it was the member's responsibility to ensure the safe design of the anchors.

WHAT WAS THE APPROPRIATE STANDARD, AND WAS THE MEMBER REQUIRED TO BE AWARE OF IT?

The member argued that, because he had prepared his design based on a design that met CSA standards, he was not negligent. He also pointed out that he had used the same design for anchors before and they had not failed and that, once all the anchors were tested, they did not fail. The member implied that the figures he needed for his calculations could not be found. He implied Fuller should have provided him with the figures required for his calculations. The association's witnesses provided evidence of the appropriate codes and standards. To meet the requirements of the building code, it is necessary to satisfy the relevant provisions of the building code, one related to design and the other related to use of the design. The member should have gone to the relevant section of the building code and should have known which standard applied.

The code at paragraph 4.4.4.1(2), subject to certain conditions, provides that the type of anchor systems at issue in this case be designed, installed and tested in conformance with CSA Z91-02. CSA Z91-02 sets out the design, use and maintenance standards for lifeline and tie back anchors, including requirements for the spacing of the anchors. It incorporates CSA Z271 by reference. CSA Z271 sets out the structure design requirements for lifeline and tie back anchors, including the strength requirement at 6.3.2. Neither CSA Z91 nor CSA Z271 refer to CSA A23.3-04; however, both witnesses for the association gave compelling evidence as to its

importance and its relevance to the design, installation and testing of the anchor systems that were the member's responsibility in this case. The panel agrees it was among the applicable guidelines, standards and codes that a professional engineer in the member's position was responsible for knowing and complying with.

It is undisputed that the member was not familiar with applicable guidelines, standards and codes that applied to the anchor system he was designing, specifically CSA A23.3-04. Even after having the proper standards pointed out to him, the member failed to familiarize himself with those standards in a way sufficient to permit him to identify the proper factors to use in his calculations. It was the member's responsibility as the component engineer to be familiar with the proper guidelines, standards and codes. The panel agrees that the correct standard was CSA A23.3-04 and that the member, as the professional engineer responsible for designing the cast-in-concrete anchors (the component engineer), should have been aware of CSA A23.3-04.

The panel finds that, even after being made aware that he was not following the proper standards, guidelines and codes, he failed to make himself aware of them until well after his anchors had been installed on the roof where they were to be used.

WAS TESTING ALONE SUFFICIENT IN THE CIRCUMSTANCES?

The member's design, even using the lower standard set out by him, failed to meet the standard required using calculations and, as such, his design could not be proven by calculations. The member suggested he should be able to rely on a proven design, which was a CSA approved design but, on careful examination of his design, it is clear the member had modified that design. The panel agrees the design requirements set out at clause 6.3.2 of CSA A271 can only be satisfied by doing both calculations and testing and, further, that a design engineer is responsible for being familiar with the relevant guidelines, standards and codes.

The fact that there is no evidence of the anchors having failed is insufficient. While the member argued that an engineer should be able to rely on his own judgment, the panel does not agree this is sufficient. The panel agrees with the witnesses for the association that the standards are put in place for a reason and that, to meet the standard of care required of a professional engineer, the responsible engineer must be both aware of them and must apply them. The panel finds the member was not aware, at the relevant time, of what the appropriate standards for his design were, had reason to know he was not aware, proceeded nonetheless to install the anchors, and did so without ever having applied the required calculations to ensure the safety of his design.

The member gave evidence that his anchors were safety tested after installation and did not fail. The panel agrees the building code puts in place a set of standards that are required by law to be followed. The fact that a professional engineer, in this case, does not follow them is serious. The risk to public safety in failing to know and apply both components of the testing required in the circumstances constitutes a failure to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances; is not sufficient to ensure public safety; and does constitute a failure to comply with applicable statutes, regulations, standards and codes contrary to Regulation 941.

With respect to his competence, there was no evidence led with respect to the member not having followed the appropriate standards in any previous work. The member gave evidence this was the first time anyone had suggested there might be a problem with his design. The member did base his design on a proven design. In his judgment, the design was sound. When the anchors were load tested, they did not fail. The member testified as to his concern for human life. In addition, looking at the evidence on the whole, the panel did not find there to be sufficient evidence to support, on a balance of probabilities, that the member displayed a lack of knowledge, skill and judgment, and a disregard for the welfare of the public sufficient to justify a finding of incompetence. For these reasons, the panel found the member not guilty of incompetence.

PENALTY

The decision on penalty is reserved. The panel agreed to receive written submissions on penalty. A timeframe for submissions was determined, and the panel chair was to set the deadlines based on the timelines once this Decision and Reasons is issued.

David Robinson, P.Eng., signed this Decision and Reasons for the decision as chair of this discipline panel, and on behalf of the members of the discipline panel: Ishwar Bhatia, P.Eng., Aubrey Friedman, P.Eng., Kathleen Robichaud, LLB, and Robert Willson, P.Eng.

PENALTY DECISION AND REASONS

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990, c. P.28; and in the matter of a complaint regarding the conduct of JIRI KRUPKA, P.ENG., a member of the Association of Professional Engineers of Ontario, and CAELLIOTT INC., a holder of a Certificate of Authorization.

A panel of the Discipline Committee met at the Association of Professional Engineers of Ontario in Toronto on October 23 and 24, 2013, to hear this matter. The decision on penalty was reserved and the panel agreed to receive written submissions on penalty. Written submissions were received from the association on June 5, 2014, with respect to the member and with respect to the certificate holder. Written submissions were received from the member on June 24, 2014. Further submissions were received from the association on July 11, 2014, with respect to the submissions of the member.

OVERVIEW

The allegations relate to the design and installation of a roof anchor system on a new eight-storey building that was constructed in downtown Ottawa and, more specifically, to the installation of anchors in the reinforced concrete portion of the roof. Jiri Krupka, P.Eng. (the member), was employed by CAElliott Inc. (the certificate holder) for the period between July 2008 and July 2010. He was the responsible engineer for the certificate holder and obtained the Certificate of Authorization for the certificate holder. The certificate holder and the member were hired to design and supervise the installation of the roof anchor system in question.

The decision was rendered orally at the hearing. The parties requested, and the panel agreed, to provide reasons for the purpose of allowing the parties to make submissions on penalty.

WITH RESPECT TO THE MEMBER

The panel determined that the member was guilty of professional misconduct pursuant to paragraphs 72(2)(a)(b)(d)(h) and was unprofessional as provided under paragraph 72(2)(j) of Regulation 941 of the *Professional Engineers Act* (the act).

WITH RESPECT TO THE CERTIFICATE HOLDER

The panel also found the certificate holder guilty of professional misconduct pursuant to paragraphs 72(2)(a)(b)(d)(h) and of having been unprofessional as provided under paragraph 72(2)(j) of Regulation 941 of the act.

SUBMISSIONS AS TO PENALTY

The association filed its own Submissions on Penalty on June 5, 2014 and July 11, 2014. The member filed his own Submissions on Penalty on June 24, 2014. No submissions were made by CAElliott Inc.

(A) SUBMISSIONS OF THE ASSOCIATION WITH RESPECT TO THE MEMBER

Jiri Krupka, P.Eng., has been a licensed professional engineer under the *Professional Engineers Act* since December 8, 1995. He was employed by CAElliott Inc. at all material times.

The association identified the objectives for penalty, pointing out that the five objectives of penalty are:

(a) the protection of the public;
(b) the maintenance of the reputation of the profession in the eyes of the public;
(c) general deterrence;
(d) specific deterrence; and
(e) rehabilitation.

Of these objectives, the association submitted that the most important is protection of the public interest. The association expressed particular concern with the member's admission that he was not familiar with the applicable CSA standards, seeing this as evidence of an element of carelessness in connection with his design work. The association further submitted that the member was willing to design and oversee the installation of a life safety system without doing either proper calculations or testing to maximum capacity, relying instead on what the association described as the (lucky) fact that his systems had not actually failed in the past. According to the association, there was, therefore, an ongoing concern for public safety, which must be addressed in the penalty order.

Another concern addressed in the submissions of the association was the issue of specific deterrence. In that regard, the association submitted that the member was not sufficiently appreciative of his error and had not indicated he had taken any further training. As such, the association submitted that there is, therefore, a possibility of re-offence, which the association submitted should be addressed by way of penalty.

The appropriate penalty in this case according to the association: With respect to the member, the association submitted that the panel should make the following orders by way of penalty:

(a) Pursuant to paragraph 28(4)(f) of the act, the member shall be reprimanded and the fact of the reprimand shall be recorded on the register for a period of two (2) years.

(b) Pursuant to paragraph 28(4)(b) of the act, the member's licence shall be suspended for a period of twenty four (24) months, commencing one week after the date of release of the panel's decision on penalty.

(c) Pursuant to paragraph 28(4)(k) of the act, nineteen (19) months of the 24-month suspension referred to above shall be suspended, provided that:

unless and until the member successfully passes the following examinations administered by PEO: 98-Civ-B I (Advanced Structural Analysis), and 98-Civ-82 (Advanced Structural Design), the member shall not undertake or provide structural engineering services and, in particular, he shall not design or supervise the installation of roof anchor systems, except under the direct supervision of another professional engineer who takes responsibility for the work.

In the event that the member breaches the proviso referred to above, the registrar shall provide him with three weeks' notice thereof, upon the expiry of which the remaining nineteen (19) months of the suspension shall be imposed.

(d) Pursuant to paragraph 28(4)(e) of the act, it shall be a restriction on the licence of the member that he shall not undertake or provide structural engineering services and, in particular, he shall not design or supervise the installation of roof anchor systems, except under the supervision of another professional engineer, unless and until he successfully completes the examinations specified in subparagraph (c)(i) above.

(e) Pursuant to subsection 28(5) of the act, the order of the panel shall be published, with the reasons therefore, together with the member's name, in the official publication of PEO.

Additional submissions of the association on key elements of the proposed penalty:

(i) Suspension

The association submitted that, if the member were to comply with the requirements of paragraph (c) of the penalty proposed above, his licence would be suspended for a total of five (5) months. It was the view of the association that this is a relatively long suspension, which it felt reflects the seriousness of the conduct in issue and the gravity of the risk to the public. It relied on two Discipline Committee decisions (Braunshstein and Cook) in which suspensions had been ordered.

(ii) Restriction on practice

It was submitted by the association that the objectives of rehabilitation and specific deterrence would best be met if the member were required to prove that he understands the principles of structural analysis and design by passing the examinations referred to above. The practice restriction would provide protection to the public until he does so.

In addition to Braunshstein (referred to above), the association referred to the following cases, which involved practice restrictions similar to those proposed in this case: PEO v. an Engineer et al. (Gazette, January/February 2012); PEO v. David W. Seberras et al. (Gazette, July/August 2006); and PEO v. a Member (Gazette, May/June 1997).

Conclusion of the association
The association submitted that, for all the above reasons, the penalty proposed by it is fair and reasonable, and that it meets the five objectives of penalty, set out above.

(B) SUBMISSIONS OF THE MEMBER ON PENALTY

The member also made submissions in which he accepted the panel's analysis and conclusions. He expressed regret at what he described as his "unprofessional approach in relying on the connection detail published by the anchor manufacturer (Thaler) neglecting to carry out the pertinent calculations as required." He agreed that, as he was responsible for the design of the anchors, he should have been aware of what calculations were applicable, and further acknowledged in his submissions that load testing alone was not sufficient.

The member stated, in his submissions, that he took full responsibility for his wrongdoing and expressed that he was eager to upgrade and improve his skills. He provided evidence of his enrolment in the 98-Civ-B2 (Advanced Structural Design) course with Global Innovative Campus, with the intention of writing the next test administered by the Association of Professional Engineers of Ontario in December 2014. He described the process of dealing with this complaint as a learning experience for him, explaining that this was the first time such a complaint was made regarding his work.

The member argued for a shorter suspension, of one month only. He supported his position on penalty by pointing out that he uses his professional stamp in his employment and that, if he were to lose the ability to use his stamp for the five months proposed by the association, that he would very likely lose his job. He explained that he is the primary income earner for his family and that losing his job would result in financial hardship for his wife and children. He accepted that his actions should be penalized, but asked for consideration of a reduction in the amount of time that his professional licence was to be suspended. He further pointed out that this was his first complaint, and that he was co-operative and acted in good faith during the investigation process. He expressed profound regret and a commitment to take steps to correct and improve his skills as a professional engineer.

(C) SUBMISSIONS OF THE ASSOCIATION WITH RESPECT TO THE CERTIFICATE HOLDER

CAElliott Inc. (the certificate holder) no longer holds a Certificate of Authorization.

With regard to the certificate holder, it should be noted that it pled guilty and did not contest the charges. It appears that it ended its relationship with the member shortly after the complainant made his complaint in this matter. It has not renewed its Certificate of Authorization. It does not appear that there is any need to protect the public from the certificate holder's activities in the future, nor does there appear to be any real risk of re-offence.

The appropriate penalty in this case according to the association:
With respect to the certificate holder:

As the certificate holder does not currently hold a Certificate of Authorization, PEO respectfully submits that a fine of $5,000 should be imposed if and when the certificate holder seeks a new or renewed Certificate of Authorization. The authority for the imposition of this penalty is subsections 28(4)(h) and 28(4)(k) of the *Professional Engineers Act*.

In support of its position, the association relied on the decision of the Discipline Committee dated November 2, 2012, in the matter of Peter Famiglietti.

No submissions were made by or on behalf of the certificate holder.

PENALTY DECISION

The panel deliberated on the penalty submissions and, pursuant to the *Professional Engineers Act*, orders the following as to penalty:

(a) Pursuant to paragraph 28(4)(f) of the *Professional Engineers Act*, the member shall be reprimanded, and the fact of the reprimand shall be recorded on the register for a period of two (2) years;

(b) Pursuant to paragraph 28(4)(b) of the *Professional Engineers Act*, the member's licence be suspended for a period of two (2) months commencing one week after the release of the panel's decision on penalty;

(c) Pursuant to paragraph 28(4)(d) of the *Professional Engineers Act*, the member's licence be limited for a period of up to twenty-two (22) months following the end of the suspension such that the member not undertake or provide structural engineering services except under the direct supervision of another professional engineer who takes responsibility for that work;

(d) Pursuant to paragraph 28(4)(k)(i) of the *Professional Engineers Act*, the limitation stipulated in paragraph c) above be suspended if and at such time as the member successfully passes the tests administered by PEO for both of 98-CIV-B1 (Advanced Structural Analysis) and 98-CIV-B2 (Advanced Structural Design);

(e) Pursuant to paragraphs 28(4)(h) and 28(4)(k)(i) of the *Professional Engineers Act*, CAElliott Inc. shall pay a fine in the amount of five thousand dollars ($5,000) to the minister of finance for payment into the Consolidated Revenue Fund if and when CAElliott Inc. seeks a new or renewed Certificate of Authorization to be paid prior to the issuance or renewal of the certificate;

(f) Pursuant to paragraphs 28(4)(i) and 28(5) of the *Professional Engineers Act*, the Decision and Reasons for the findings and penalty shall be published in *Engineering Dimensions*, with reference to names; and

(g) There shall be no order with respect to costs.

REASONS FOR DECISION ON PENALTY

The decisions referred to by the association are not binding on the panel. The panel also felt that they dealt with somewhat different circumstances than the present case.

DURATION OF SUSPENSION

Taking into consideration the submissions of both parties, the panel concluded that the penalty proposed by the association, especially in terms of the length of the proposed suspension being for five months, was more stringent than the circumstances required and did not adequately account for the personal circumstances of the member. The panel considered also that, following the hearing, the member expressed remorse and an understanding of the mistakes he had made. Nonetheless, while the penalty proposed by the association was more stringent than necessary, the penalty proposed by the member was, however, felt to be insufficient. The member did not appear to fully understand the nature and consequences of his actions until after the hearing. The member was not familiar with the applicable codes for the roof anchor systems he was designing. The panel felt that a two-month suspension was adequate to serve the goals of specific and general deterrence in that it would have a significant enough impact on the member while, at the same time, serving as a warning to licensed professional engineers of ensuring they are competent in the area they are working.

LIMITATIONS ON LICENCE

The panel considered the expressions of remorse and the demonstration of willingness and interest by the member to improve his skills by enrolling in courses. Mindful of the goal of rehabilitation, the panel determined this goal would be better met by a shorter suspension and a clearer and longer period of supervision until the member demonstrates an understanding through testing by the association in structural engineering, the aspect of the discipline of professional engineering that he was lacking when he designed the roof anchors. Protection of the public is served by the member having a limitation on his licence such that his work in the area of structural engineering must be supervised by another professional engineer until he demonstrates competence in that area. The requirement to successfully pass the structural engineering tests, and until then have limits on the licence, serves both the goal of protecting the public as well as the goal of rehabilitation.

PUBLICATION

Publication of the Reasons for the Decision and Penalty were considered important as part of the overall penalty and will help to deter members from similar acts of misconduct.

The panel finds that, given the overall circumstances of this case, the publication of the Decision and Reasons with names and the imposition of the two-month suspension and restrictions on the licence of the member for up to 22 months will serve that purpose.

FINE IMPOSED ON THE CERTIFICATE HOLDER

As for the certificate holder, the panel accepted the penalty proposed by the association, seeing no reason to vary from it. The panel accepts that the certificate holder is no longer providing service to the public and that should it attempt to do so by seeking a new or to renew a Certificate of Authorization, a fine of $5,000 is an appropriate deterrent should CAElliott Inc. choose to provide engineering services to the public in the future.

As for costs, no costs were sought by the association and, as such, the panel finds that an award for costs was not warranted.

All components of the penalty serve to protect the public and help to maintain public confidence in the ability of the profession to act as a regulator.

David Robinson, P.Eng., signed this Decision and Reasons for the penalty as chair of this discipline panel and on behalf of the members of the discipline panel: Ishwar Bhatia, P.Eng., Aubrey Friedman, P.Eng., Kathleen Robichaud, LLB, and Robert Willson, P.Eng.

NOTICE OF LICENCE REVOCATION–FALCON GROUP INTERNATIONAL INC.

On December 17, 2014, the Certificate of Authorization of Falcon Group International Inc. was revoked pursuant to an October 29, 2014 Registrar's Notice of Proposal to Revoke a Certificate of Authorization. As a hearing was not requested within 30 days after the Notice of Proposal was served upon the holder, the registrar carried out the proposal and revoked the Certificate of Authorization.

COURT ORDERS TILLSONBURG'S ERIE STRUCTURES TO CEASE HOLDING OUT AS ENGINEERING FIRM

The Ontario Superior Court of Justice has upheld that companies and individuals who suggest they offer professional engineering services must be authorized by Professional Engineers Ontario and hold a Certificate of Authorization (C of A).

On February 13 the Hon. Mr. Justice Stinson ordered 2322650 Ontario Limited (operating as Erie Structures) to cease holding itself out as an engineering firm, and its principals, William David Dendekker, Jonathon Joel Dendekker and Bernard Fehr, to stop representing that they can perform "engineering" or that the company has "engineers." The court awarded PEO $5,586.36 for its application costs.

PEO received reports of two greenhouse projects with structural problems. A project in Mount Albert undertaken by Erie Greenhouse Systems Inc. was the subject of a lawsuit over the quality of its construction, and a false engineering seal had been used on permit application drawings. A project in Kingsville undertaken by Erie Greenhouse Services Inc. was reported to show signs of a twisted and distorted structure.

A PEO investigation found that Erie Greenhouse Systems Inc. and Erie Greenhouse Structures Inc. are predecessors of Erie Structures and are currently bankrupt. They operated from the same address in Tillsonburg and had shared management as Erie Structures. The Erie companies carried out the structural design, preparation of engineering drawings, permit applications and construction for both the Mount Albert and Kingsville projects. On their websites and in their printed materials, Erie Greenhouse Structures Inc. and Erie Structures were also holding out that they performed "engineering." At no time did any of the Erie companies hold a C of A to provide professional engineering services, nor did any of them employ a professional engineer.

In the court proceedings, Mr. Justice Stinson found: "The material filed demonstrates the unauthorized use of the terms 'engineer' and 'engineering' in breach of the *Professional Engineers Act*," and further went on in his endorsement to say: "Given the potential serious consequences of the unauthorized practice of engineering that may result from such unauthorized use, an order restraining such conduct is appropriate." He ordered that Erie Structures cease using the words "engineer," or "engineering" or any other term, title or description that will lead to the belief that it may provide to the public services that are within the practice of professional engineering. Erie Structures may no longer represent on its website or in its printed materials that it employs engineers or that it performs engineering services. He also ordered William David Dendekker, Jonathon Joel Dendekker and Bernard Fehr to ensure that, now and in the future, any company for which they are an officer or director refrain from holding out as an engineering firm, unless the company holds a C of A.