

COMPILED BY BRUCE MATTHEWS, P.ENG.

This matter came on for hearing before a panel of the Discipline Committee on May 25, 26 and 27, 2004, at the Association of Professional Engineers of Ontario (the “association”) in Toronto. The association was represented by Michael Royce of Lenczner Slaght Royce Smith Griffin LLP. Timothy E. Leier, P.Eng., and Walters Consulting Corporation were represented by Steven Rosenhek of Fasken Martineau DuMoulin LLP.

The Allegations

The allegations against Timothy E. Leier (the “member”) and Walters Consulting Corporation o/a Walters Forensic Engineering (“Walters”) in the Notice of Hearing dated January 28, 2003 (“exhibit 1”) were as follows:

It is alleged that the member is guilty of incompetence and that the member and Walters 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. Walters 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, and was responsible for supervising the conduct of its employees and taking all reasonable steps to ensure that its employees, including the member, carried on the practice of professional engineering in a proper and lawful manner. The member was one of the professional engineers responsible for the services provided by Walters. Furthermore, Walters had permission at all material times from the Council of the Association of Professional Engineers of

Decision and Reasons

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

Timothy E. Leier, P.Eng.

a member of the Association of Professional Engineers of Ontario, and

Walters Consulting Corporation

a holder of a Certificate of Authorization.

Ontario to use the “consulting engineers” title.

3. Paul and Frances Gray are the owners of a cottage property located on Crane Lake, in the Township of The Archipelago (hereinafter referred to as the “township”) near Parry Sound, Ontario. In or about the early morning of Monday, April 26, 1999, a fire occurred in the area of the Gray property.

The fire destroyed a cottage, a boathouse, a storage shed for a snowmobile and a dock on the Gray property, a bunkhouse and storage shed on the neighbouring Abols property to the south, and a storage shed on the property of the other neighbour, Peggy Shaw, to the north. All three properties sloped down to the lake front, and were located to the west of Ramsey Johnston Road, a township access road.

4. The Gray and Shaw cottages were at a higher elevation than the Abols cottage. The fire damage covered a widespread area of approximately 2.5 hectares, or 6 acres, which extended

from the east shoreline of Crane Lake to a point a considerable distance inland, extending well beyond the east side of Ramsey Johnston Road and to the north and south of the Gray cottage.

The Grays had a local plumber install a new water system at the cottage in 1996. To facilitate winter use of the cottage, a 10-foot heating cable was installed in a water pipe to a submersible pump starting at the shore and going into the lake where ice normally forms. The heating system was chosen for its low wattage requirement of only 5 watts per foot, and for its ground fault protection.

5. The National Fire Protection Association (“NFPA”) is a recognized authority on the subject of fire losses, fire system installations, and fire protection equipment, and is the publisher of the National Fire Codes. One of its publications recognized and followed by fire investigators is *NFPA 921: Guide for Fire and Explosion Investigations* (the “guide”), the current edition of which is the 2001

- edition. Chapter 2 of this guide includes the basic methodology to be used for fire investigations.
6. Liberty Mutual Insurance (hereinafter referred to as “Liberty Mutual”) was the insurer for the Gray property. Ronald Dahl (hereinafter referred to as “Dahl”), of Crawford Adjusters Canada Inc. in Huntsville, was the adjuster used by Liberty Mutual to evaluate the property damage of the Grays. In the evening of April 26, 1999, Dahl went to the Gray property to observe the scene of the fire, assess the fire damage, and meet with the Grays.
 7. Jim Dewar (hereinafter referred to as “Dewar”), of Cormier Adjusting Limited in Parry Sound, was the adjuster for the insurer of the Abols property. On April 27, 1999, Dewar telephoned the Grays to advise that the insurer for the Abols property felt the fire started in the area of the water line heating cable on the Gray property. The Grays advised Dewar that the fire could not have started in the heating cable because the electrical power in the cable had been turned off at the end of a visit to the cottage by the Grays on April 10, 1999.
 8. Dahl telephoned the Grays on April 28, 1999 to advise that, after learning of the comments by Dewar regarding the water line heating cable on the Gray property, the member, an electrical engineer with Walters, had been retained by the insurers for the Gray and Abols properties to investigate the origin and cause of the fire. Dahl also advised the Grays that he was meeting with Dewar and the member, and it would not be bad if there was faulty wiring in the heating cable, as this would allow Liberty Mutual to pursue costs with the plumber who installed the heating cable system for the Grays.
 9. On April 28, 1999, Dahl met with the member and Dewar at the site of the fire on the Gray property. All three arrived at the site at virtually the same time and, within minutes of arrival, the member went straight to the shoreline and began his investigation there. The member and Dahl took photographs of the fire scene. One of the photographs taken by Dahl was of a Gray sign post located on the south side of an east-to-west private driveway leading west from Ramsey Johnston Road into the Gray property. Dahl noted that the Gray sign post was charred near ground level on the south-east face.
 10. The Grays met with Dahl on May 2, 1999, at which time Dahl had in his possession a draft copy of a preliminary report from the member and Walters. The preliminary report indicated that although there were no signs of any electrical faults or failures inside the electrical box at the water’s edge, or to the back of the receptacle in the electrical box, the fire started at the electrical box. Dahl also had some photographs that he had taken of the fire site. Dahl mentioned to the Grays that one of the photographs depicted the Gray sign post in the burned area, and the fire burn pattern on the sign post indicated the fire came from the direction of a tree that had fallen against the power line on the west side of Ramsey Johnston Road. Dahl expressed serious concerns to the Grays as to the accuracy and fairness of the member’s draft report and stated that he had advised Liberty Mutual not to purchase that report.
 11. In a report to Liberty Mutual entitled *Engineering Assessment—Origin and Cause of Crane Lake Cottage/Forest Fire*, dated August 16, 1999, the member and Walters provided the results of their investigation regarding the origin and cause of the fire at Crane Lake. While the cover page of the Walters report carried the seals of the member and another Walters employee, R.W. Koerth, P.Eng., also dated August 16, 1999, the report itself was sealed only by the member. The Walters report provided brief background information relating to the parties contacted, a detailed narrative of the member’s observations during his inspection of the fire site, subsequent findings by the member, a summary, and a conclusion. The Walters report included a copy of 11 pages from the *Ontario Electrical Safety Code* in appendix A, as well as 35 photographs taken by the member that depicted various areas of the fire damage. There was no indication in the Walters report that the member contacted any parties other than the Abols and the Ministry of Natural Resources (“MNR”) personnel who responded to the fire, nor did the member indicate he made any effort to contact the Grays.
 12. The summary in the Walters report included the following statements by the member:

“Based on our investigation into this loss, it is our opinion that this fire originated on the Gray property and specifically at an electrical outlet box located at the water’s edge, to the west of the cottage. The fire spread from that point, along the electrical cabling and plastic piping, up to the cottage and then to surrounding ground cover.

“The probable cause of the fire at the outlet box was localized heating caused by current leakage at the face of the lower receptacle outlet. The current leakage was probably caused by water/moisture exposure and debris accumulations due to the outlet’s location at the shore.

“The installation of the electrical outlet box at the lake shore was found to be in contravention of the Ontario Electrical Safety Code. It is our opinion that had the outlet box

been installed in compliance with the Code, this fire and loss would not have occurred.”

13. As a result of continuing concerns with the Walters report over many months, the Grays telephoned the member on September 26, 2001 to express their concerns. After speaking to the member, the Grays decided to send the member a letter on January 15, 2002 to provide the member with information and documentation the Grays had assembled, and to ask the member to review the information to help the Grays understand how the member arrived at his conclusions regarding the cause of the fire. In their letter to the member, the Grays raised issues that included the spread of the fire and the absence of electrical power in the outlet at the lake, and provided the member with background information and documentation that included a copy, amongst other items, of the Heyerhoff report, the May 1999 letter from the MNR, and a record of the wind recorded at Muskoka Airport on April 25, 1999.
14. By letter dated February 7, 2002 to David, the member and Walters responded to the letter from the Grays. In the Walters letter, the member indicated that nothing was found in the information from the Grays that required him to change his initial conclusions that the fire was due to an electrical fault associated with the submersible water pump/line heater installed at the Gray cottage. The member maintained that the ABS (PVC) piping leading down to the lake would only burn if it was exposed to continuous and ongoing heat input over the entire affected length, either from an outside fire or some manner of internal source, such as an ongoing electrical fault. The member also maintained that, in this case, the pip-

ing could not have been ignited and kept burning by the larger cottage fire as claimed by Heyerhoff, and the only way the piping could have been burned in the observed manner was if there was some continuing electrical fault that supplied energy to sustain the pipe burning. In his letter, the member also ruled out that the fire was caused by induced/applied power or voltage on the grounded power line neutral, or by the tree falling on the power lines.

15. In summary, the member and Walters:
- (a) conducted an engineering investigation and analysis that was not in conformance with acceptable professional engineering practice or fire investigation standards;
 - (b) failed to follow the basic methodology established by the NFPA in its *Guide for Fire and Explosion Investigations* in conducting the fire investigation and reaching the conclusions with respect to the probable cause of the fire;
 - (c) failed to correctly determine that the cause of the fire was undetermined based on the available and collected evidence;
 - (d) provided an engineering report and followup letter that contained omissions, examples of which included:
 - (i) no discussion by the member as to why he disregarded evidence of the Grays with respect to the status of the power circuit to the shoreline receptacle, when there was no physical electrical evidence examined, documented or reported by the member to suggest or to verify whether any of the electrical circuits in the Gray cottage were electrically energized at the time of the fire, including the power supply cables to the shoreline receptacle and the submersible pump,
 - (ii) no discussion by the member of the burn pattern on the cot-

tage sign post, which did not support the member's conclusions with respect to the origin of the fire,

- (iii) no discussion by the member of the large area of exposed rock between the lake and the front of the Gray cottage that naturally separated the burned areas into two distinct areas of fire damage,
- (iv) no discussion by the member of the time sequence of events and the consistency, or lack thereof, with respect to the suggested area of origin and cause of the fire,
- (v) after referring to there being two lowest points of burning and that the most windward extent of burning was on the Gray property, there was no reason given by the member for discounting the other area where the boathouse was destroyed after the member selected the tight and limited burning area in the vicinity of the electrical outlet as the point of fire origin,
- (vi) no discussion by the member with respect to how the fire managed to spread downhill to the shoreline against the prevailing wind to involve the boathouse when the fire could not similarly spread down to the shoreline from the cottage, where the water line and electrical receptacle were located,
- (vii) no discussion by the member of the possibility of variable wind directions influenced by the topography when ruling out the possibility of the fire having originated at the location of the fallen oak tree,
- (viii) no explanation by the member as to how he believed the heat produced by the leakage current at the face of the electrical receptacle traveled downward and became a competent source of

- ignition for the two pieces of PVC piping,
- (ix) no consideration given by the member that the fire could have been initiated by an outside fire caused by a hot exhaust system, careless smoking, or an intentional act, and
 - (x) no explanation by the member for other evidence that was either difficult to explain or did not support the chosen cause of the fire;
- (c) provided an engineering report and followup letter that was misleading, examples of which included:
- (i) the member suggested that there was a significant uniqueness about the fire pattern where the water line was located, when it was not unique,
 - (ii) the member stated that the fire did not spread directly south from the suggested point of fire origin at the shoreline due to the shoreline covering rocks, as well as the lack of ground cover and unsuitable terrain, when there was potentially combustible ground cover along the shoreline that could have supported the lateral spread of fire in the vicinity of the shoreline, and
 - (iii) the member stated that the piping could not have been ignited and kept burning by the larger cottage fire since the burned piping was completely covered by rocks, was angled away from the cottage and would therefore not have received any radiant heat whatsoever, when the piping was not covered with rocks beyond the first 1.5 metres from the shoreline;
- (f) provided an engineering report and followup letter that contained opinions or conclusions that were technically flawed or unreasonable, examples of which included:
- (i) the member indicated that the fire originated at the location of the Gray water supply heating cable electrical outlet at the shoreline, which is at a similar elevation to the Abols cottage and upwind from the Abols cottage, when the fire only reached the location of the Abols cottage by about 10:30 a.m. on the morning of the fire, and
 - (ii) the member stated in his report, when describing the leakage current failure mode, that the current permitted to flow by this type of failure was typically too small to immediately trip or operate any protective device. To further support his conclusions, the member stated in his followup letter that it could be possible the protective device supplying the pump/heater failed or was defective. If the leakage current was sufficiently small that no electric arcing damage or evidence of the failure existed at the plug/receptacle interface, no significant amount of heat would be produced within the PVC pipe.
- If the electrical current was high enough to produce the amount of heat in the #14/3 cable, as suggested by the member, there would have to be a major sustained failure, which would have resulted in severe damage at the point of failure, and there was no evidence of such damage. For the fire to have spread up to the cottage along the pipe due to the heating effect of the cable within the PVC pipe, as suggested by the member, the sustained electrical fault creating the heat within the pipe would have to have existed for a very long time. All the time that this was happening, somehow the short portion of the insulated conductors within the duplex receptacle box did not become excessively overheated, nor did an electric arcing failure occur anywhere along the length of the #14/3 cable running up to the cottage;
- (g) provided an engineering report and followup letter that contained errors, examples of which included:
 - (i) incorrectly stated that the leakage current failure mode at a plug inserted into an electrical receptacle rarely leaves any physical evidence, when there is almost always clearly visible evidence of the burned fault current path on the face of the receptacle and/or the plug insulation, and severe electric arcing damage also occurs to the two electrical components between which the fault current flowed, and
 - (ii) incorrectly stated that an electrical fault current of less than 15 or 20 amperes would have provided sufficient energy to sustain burning of the piping, when a length of #14/3 electrical cable loaded to 20 amperes would run at a higher than rated temperature, but would not produce sufficient heat to cause the combustible vapours necessary to sustain combustion of the pipe, to be given off the heavy PVC pipe;
 - (h) provided a report that was written with a bias and that favoured the insurance company being able to pursue recovery of its costs from the plumber's liability insurer;
 - (i) failed to change his opinion on the origin and cause of the fire when given a second opportunity when the Grays provided him with additional information; and
 - (j) acted in an unprofessional manner.
16. By reason of the facts aforesaid, it is alleged that the member is guilty of incompetence as defined in section 28(3)(a) and the member and Walters are guilty of professional

misconduct as defined in section 28(2)(b) of the *Professional Engineers Act*, R.S.O. 1990, Chapter P.28.

17. “Incompetence” is defined in section 28(3)(a) as:

“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.”

18. 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;
- (c) *Section 72(2)(d)*: failure to make reasonable provision for complying with applicable statutes, regulations, standards, codes, by-laws and rules in connection with work being undertaken by or under the responsibility of a practitioner;
- (d) *Section 72(2)(h)*: undertaking work the practitioner is not competent to perform by virtue of the practitioner’s training and experience;
- (e) *Section 72(2)(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.

Plea of the Member and Holder

The member and Walters denied the allegations set out in the Notice of Hearing.

Overview

The hearing arose as a result of a report dated August 16, 1999, which the member wrote while employed by Walters, concerning a fire that had occurred on April 26, 1999 at a cottage property owned by Paul and Frances Gray.

The Evidence

Michael Royce (“Mr. Royce”), counsel for the association, advised the panel that the parties had agreed to an Agreed Statement of Fact (“ASF”) that was introduced into evidence as exhibit 2. The ASF provided as follows:

1. Timothy E. Leier, P.Eng., (“Leier”) was at all material times a member of the Association of Professional Engineers of Ontario.
2. Walters Consulting Corporation o/a Walters Forensic Engineering (“Walters”) 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 and was responsible for supervising the conduct of its employees and taking all reasonable steps to ensure that its employees, including Leier, carried on the practice of professional engineering in a proper and lawful manner. Leier was one of the professional engineers responsible for the services provided by Walters. Furthermore, Walters had permission at all material times from the Council of the Association of Professional Engineers of Ontario to use the “consulting engineers” title.
3. Paul and Frances Gray were at all material times the owners of a cottage property located on Crane Lake, in the Township of The Archipelago (hereafter referred to as the “town-

ship”) near Parry Sound, Ontario. In or about the early morning of Monday, April 26, 1999, a fire occurred in the area of the Gray property. The fire destroyed a cottage, a boathouse, a storage shed for a snowmobile and a dock on the Gray property, a bunkhouse and storage shed on the neighbouring Abols property to the south, and a storage shed on the property of the other neighbour, Peggy Shaw, to the north. All three properties sloped down to the lake front, and were located to the west of Ramsay Johnston Road, a township access road. The Gray and Shaw cottages were at a higher elevation than the Abols cottage. The fire damage covered a widespread area of approximately 2.5 hectares, or 6 acres, that extended from the east shoreline of Crane Lake to a point a considerable distance inland, extending well beyond the east side of Ramsey Johnston Road and to the north and south of the Gray cottage.

4. The Grays had a local plumber install a new water system at the cottage in 1996. To facilitate winter use of the cottage, a 10-foot heating cable was installed in a water pipe to a submersible pump starting at the shore and going into the lake where ice normally forms.
5. The National Fire Protection Association (the “NFPA”) is a recognized authority on the subject of fire losses, fire system installations, and fire protection equipment, and is the publisher of the National Fire Codes. One of its guideline publications recognized and used by fire investigators is *NFPA 921: Guide for Fire and Explosion Investigations* (the “guide”), the current edition of which is the 2001 edition. Chapter 2 of this guide is entitled “Basic Methodology.”
6. Liberty Mutual Insurance (hereinafter referred to as “Liberty Mutual”) was the insurer for the Gray property.

- Ronald Dahl (hereinafter referred to as “Dahl”), of Crawford Adjusters Canada Inc. in Huntsville, was the adjuster used by Liberty Mutual to evaluate the property damage of the Grays. In the evening of April 26, 1999, Dahl went to the Gray property to observe the scene of the fire, assess the fire damage, and meet with the Grays.
7. Jim Dewar (hereinafter referred to as “Dewar”), of Cormier Adjusting Limited in Parry Sound, was the adjuster for the insurer of the Abols property. On April 27, 1999, Dewar telephoned the Grays to advise that the insurer for the Abols property felt the fire started in the area of the water line heating cable on the Gray property. The Grays advised Dewar that the fire could not have started in the heating cable because the electrical power in the cable had been turned off at the end of a visit to the cottage by the Grays on April 10, 1999.
 8. Dahl telephoned the Grays on April 28, 1999 to advise that, after learning of the comments by Dewar regarding the water line heating cable on the Gray property, Leier, an electrical engineer with Walters, had been retained by the insurers for the Gray and Abols properties to investigate the origin and cause of the fire.
 9. On April 28, 1999, Dahl met with Leier and Dewar at the site of the fire on the Gray property. Leier and Dahl took photographs of the fire scene. Dahl advised Leier that the Grays had stated that they had shut off the switch controlling the shore outlet when they were at the cottage two weeks earlier.
 10. On April 29, 1999, Leier conducted a direct inspection of the evidence he collected. This included the electrical outlet box, into which the heating cable was plugged. Leier formed an opinion that the outlet was energized at the time of the fire, contrary to the Grays’ statement. That outlet box was later given to a fire investigator retained directly by the Grays, and was subsequently lost.
 11. The Grays met with Dahl on May 2, 1999, at which time Dahl had in his possession a draft copy of a preliminary report from Leier and Walters. Dahl also had some photographs that he had taken of the fire site.
 12. In a report to Liberty Mutual entitled *Engineering Assessment—Origin and Cause of Crane Lake Cottage/Forest Fire*, dated August 16, 1999, Leier and Walters provided the results of their investigation regarding the origin and cause of the fire at Crane Lake. The Walters report carried the seals of Leier and another Walters employee, R.W. Koerth, P.Eng., also dated August 16, 1999, who peer-reviewed the report. The Walters report provided background information relating to the parties contacted, a narrative of Leier’s observations during his inspection of the fire site, subsequent findings by Leier, a summary, and a conclusion. The Walters report included a copy of 11 pages from the *Ontario Electrical Safety Code* in appendix A, as well as 35 photographs taken by Leier that depicted various areas of the fire damage.
 13. The summary in the Walters report included the following statements by Leier:

“Based on our investigation into this loss, it is our opinion that this fire originated on the Gray property and specifically at an electrical outlet box located at the water’s edge, to the west of the cottage. The fire spread from that point, along the electrical cabling and plastic piping, up to the cottage and then to surrounding ground cover.”
 14. The Grays telephoned Leier on September 26, 2001 to express their concerns regarding the Walters report. After speaking to Leier, the Grays decided to send Leier a letter on January 15, 2002, to provide Leier with information and documentation the Grays had assembled, and to ask Leier to review the information to help the Grays understand how Leier arrived at his conclusions regarding the cause of the fire. In their letter to Leier, the Grays raised issues that included the spread of the fire and the absence of electrical power in the outlet at the lake, and provided Leier with various background information and documentation.
 15. By letter dated February 7, 2002 to Mr. Hillel David, Leier and Walters responded to the letter from the Grays. In the Walters letter, Leier indicated that nothing was found in the information from the Grays that required him to change his initial conclusions that the fire was due to an electrical fault associated with the submersible water pump/line heater installed at the Gray cottage.

“The probable cause of the fire at the outlet box was localized heating caused by current leakage at the face of the lower receptacle outlet. The current leakage was probably caused by water/moisture exposure and debris accumulations due to the outlet’s location at the shore.”

“The installation of the electrical outlet box at the lake shore was found to be in contravention of the Ontario Electrical Safety Code. It is our opinion that, had the outlet box been installed in compliance with the Code, this fire and loss would not have occurred.”
- Mr. Royce, counsel for the association, then called the following witnesses:

Paul Gray: Paul Edward Gray (“Mr. Gray”) stated that he and his wife, Frances Gray, were at all material times the owners of the subject property, a cottage on Crane Lake, near Parry Sound, Ontario. They had purchased the property in 1996. Also in 1996, the Grays had hired a plumber to install a water system that included a 50-watt heater cable on the PVC water supply piping at the water’s edge.

Mr. Gray first heard about the fire on April 26, 1999 by telephone from a neighbour, and immediately drove to the property from Toronto that afternoon. A representative of the Ministry of Natural Resources was already on site. Mr. Gray stated that he had turned off the power supply to the heater cable two weeks prior to the date of the fire. On the same evening of the fire, Mr. Gray stated that he met Ronald Dahl (“Mr. Dahl”), an insurance adjuster from Crawford Adjusters Canada in Huntsville, representing the Grays’ insurance company, Liberty Mutual Insurance.

Mr. Gray met with Mr. Dahl again on May 2, 1999, by which time Mr. Dahl had a draft report from the member. Mr. Gray was shown the report by Mr. Dahl, and Mr. Gray became concerned at the draft conclusions by the member in the draft report, as to the probable cause of the fire. Mr. Gray remained concerned with the conclusions of the member and his concerns were later documented more fully in his letter of January 15, 2002 to the member, which was exhibit 5 to the proceedings.

Ronald Dahl: Mr. Dahl is an insurance adjuster and was hired by the Grays’ insurance company regarding the loss on the Gray property. On the day of the fire, he had noticed a burn pattern near a large tree, which was more than 100 metres from the

shoreline, and the burn pattern did not seem to be consistent with the fire starting from the shoreline.

Mr. Dahl stated that Jim Dewar (“Mr. Dewar”), the insurance adjuster for the abutting property owners, the Abols, had called him to propose the splitting of the fee from the member for the forensic investigation. Mr. Dahl stated that this was not an unusual arrangement in these types of circumstances. He stated that he informed the Grays accordingly.

He stated that he was aware of the Grays’ contention that the power had been shut off to the shoreline heating cable. However, he did advise the Grays that if faulty wiring was a cause of the fire, the plumber’s insurance company could be a party to the settlement of the loss.

Mr. Dahl met with the member and Mr. Dewar on site on April 28, 1999. They arrived at roughly the same time and following introductions, the member said that he would start at the shoreline and walked to the electrical receptacle adjacent to the water’s edge and began his investigation at that location, according to Mr. Dahl. Mr. Dahl also took his own photographs of the site. One of those photos was of the sign post at the south-east corner of the property that showed fire damage on the side of the sign away from the shore. Mr. Dahl felt that this did not appear to be consistent with a fire starting at the shoreline. A short time after the member began his investigation, Mr. Dahl left the site.

Mr. Dahl met with the Grays on May 2, 1999, at which time he had a draft report dated April 30 from Walters and signed by the member. The draft report identified the shoreline receptacle as the cause of the fire and concluded that the receptacle had been energized at the time of the fire.

During cross-examination by Steven Rosenhek (“Mr. Rosenhek”), counsel for the member, Mr. Dahl stated that he and Mr. Dewar did not go to the water’s edge before the member arrived for the April 28, 1999 meeting. He stated further that both he and the member took photographs as a normal part of their investigation. Mr. Dahl had already been told prior to the site meeting that power had been turned off by the Grays two weeks before the fire.

J.E. (Cal) White, P.Eng.: Mr. Royce called as an expert witness, Calvin White, P.Eng. (“Mr. White”), who had been retained by the association to review the member’s and Walters’ report of August 29, 1999 and the letter of February 7, 2002, both of which were exhibits to this hearing.

Mr. White’s C.V. was reviewed and confirmed that he is a certified fire and explosion investigator, that he has practised in Ontario for more than 40 years and that he has been involved, or has been professionally responsible for, over 2000 fire investigations.

Mr. White stated that the NFPA is the recognized authority providing information and guidelines on fire protection, and is also the forum of technical information in the industry to ensure and promote fire protection and life safety. Although it is not obligatory, NFPA 921 is the recognized guide to fire investigations. Chapter 2 of that document emphasizes the need for a systematic application of a scientific method to fire investigations. With reference to the document, Mr. White stated that NFPA 921 requires the application of deductive reasoning and the identification, testing and ruling out of alternatives. Speculative or subjective information cannot be included in the analysis. Section 2.3.6 states that, if all reasonable hypotheses are examined, tested, and discarded by

the recommended method, the cause of the fire should be reported as “undetermined.”

Mr. White had reviewed photographs taken by the member, and these photographs had also been submitted as exhibits to this hearing. The photos, which had been taken on April 28, 1999, showed the orientation of the rocks, receptacle, and cable near the shoreline. There was also an indication from the photos of adjacent areas that were relatively clean and undamaged, as well as areas charred by the fire. White stated that if the fire had burned beneath the receptacle, the plastic and natural materials would have burned and shown greater damage, particularly at the bottom of the receptacle. The pictures did not prove the prior location of the rocks, according to Mr. White.

Mr. White stated that there appeared to be an abundance of evidence that the receptacle was not energized at the time of the fire. At the face of the receptacle beneath the cover of the rocks, the combustible material consists of the electrical components and possibly some debris. There was no room for much else. If the receptacle had been energized and if there was current leakage across the face of the receptacle through conductive debris, the current would cause heating, evaporation and likely more conductive tracks at the face of the receptacle. As the current flow increased, more carbon would be produced and ultimately ignition would start at the face of the receptacle. The current leakage could be small enough so as not to trip the current protection for that circuit. If this had happened, Mr. White stated that the first thing to have burned would have been the receptacle, but a corresponding burn path was not evident, accord-

ing to White. The receptacle should have been more damaged and yet the fire did not burn through the plug blades. The first material to have burned should have been the cable insulation, and there should have been evidence of arcing from the short circuit. The pump cable showed no such damage. The conclusion of the member that the circuit was energized was not supported by the evidence of the condition of the electrical components. There was not sufficient evidence to prove that the circuit was energized. It was Mr. White's opinion that this alternative should have been ruled out and that the member's analysis and report should have considered other alternatives.

The photographs indicated a relatively tight burn pattern around the pipe and rocks, and this is consistent with a lack of combustible material in that area. Mr. White stated that if a burning ember had fallen and lodged in the rocks, it might have caused the burning of the piping, and this alternative should have been addressed by the member.

One of the photos in evidence in exhibit 9 indicated that charred debris could fall down the relatively steep slope and, therefore, this alternative should have been addressed by the member in his investigation and in his report.

The member could not determine the condition of the boathouse on the adjacent property and, therefore, it should also have considered the alternative of the fire starting in the boathouse.

Regarding the sign post at the south-east corner of the property, Mr. White noted that the evidence indicated that the sign was burned on the south and east faces, and was not mentioned in the member's and Walters' report. There was no explanation of why the tree had fallen that morn-

ing or whether a fire could have spread from the tree to the cottage, despite the fact that this was apparently against the wind direction. It is possible that the wind could swirl unpredictably, and this possibility should have been considered and more fully explained.

Burn patterns suggested different possible sources of ignition and spread and these should have been addressed and evaluated in the report by the member and Walters. The time sequence of the ignition and spread of the fire should have been explained in more detail. There was no apparent evidence of an outside source of the fire but this possibility should also have been dealt with in the report. In Mr. White's opinion, the burn pattern was not unique and should not have been considered conclusive by the member in the report.

With reference to the Walters letter of February 7, 2002, signed by the member, Mr. White disagreed with the opinion that a sustained electrical fault was the only explanation for the damage to the PVC piping.

Regarding the alleged bias of the report, Mr. White could not comment on whether the report was intentionally biased, but he did state that the member could not attribute the cause of the fire to the plumbing installation without abundant conclusive evidence. More alternatives should have been addressed and evaluated to ensure fair and reasonable use of the report.

Mr. White concluded his evidence-in-chief by stating that, in his opinion, the report and the subsequent letter did not meet the standards of a reasonable and prudent practitioner.

Mr. Rosenhek began the cross-examination of Mr. White by reviewing his C.V. Mr. White stated that he had received his designa-

tion as a certified fire and explosion investigator in 2003, following the investigation of the Crane Lake fire on the Gray property. One of the instructors of the course was the defence expert witness, Mazan J. Habash, P.Eng. (“Mr. Habash”). Mr. White agreed that the forensic engineers in Ontario are a relatively small group, numbering about 50 or so.

Mr. White was not sure how many of that group practised in the field of fire investigations. Mr. Rosenhek suggested that it was a smaller number of about 25, but Mr. White was not certain of the exact number.

Mr. White admitted that disagreements and litigation in the field of fire investigation were not unusual, and that he had disagreed with the member previously, and that disagreements can occur without negligence on either side of a dispute. The judgment of the evidence and the relative weighting given to each alternative is a matter of the application of skill and science by the practitioner. Mr. White agreed that fire investigation is both an art and a science.

Mr. White also agreed that when he wrote his report on the original Walters report and subsequent letter, he should have used the best available information at the time of his investigation. His initial report in 2002 was completed without the benefit of colour photos. Mr. White had used black and white photocopies. It was not clear when Mr. White asked for the colour photographs. Mr. Rosenhek asked Mr. White if he would change his opinion about arc tracking at the receptacle after reviewing a better colour photograph. Mr. White agreed that the photograph was poor and that he had relied upon it for his report, but he still believed that it was sufficient for his purpose. He had been aware that the member had

stated that there was evidence of arc tracking at the receptacle, and Mr. White agreed with Mr. Rosenhek that he should have seen the best photographic evidence available. He received the colour photographs in the fall of 2003.

Mr. White stated that he did not review the member’s sketches because he felt that the report should be a standalone document and that a reviewer of the document should be able to trace the member’s reasoning and evaluation of alternatives from the member’s report. Given that Mr. White’s review was so long after the fire, Mr. White agreed with Mr. Rosenhek that the member had the best opportunity to review the evidence, including the receptacle, which had not been available to Mr. White.

Mr. White agreed that it was a complex fire scene. There had been a fire near the shore. Mr. White stated that the investigator should first determine the area of origin and then determine the cause. He did not fault the member for considering that the fire started at the receptacle. This was an area to explore, but Mr. White could not accept the member’s conclusion that the receptacle was the only possible source of the fire. He disagreed with the member’s conclusion as to the source of the ignition of the pipe. Mr. White agreed that fire had propagated under the rocks covering the piping. The undersides of the rocks were charred and there was no apparent evidence of damage to the top of the rocks. Mr. White did not dispute this. Mr. White agreed further that the photograph, exhibit 15, tab 7, shows that the receptacle was within inches of the water surface, but that this did not necessarily rule out the possibility of ignition from a falling ember, despite the very tight burn pattern.

There was also fire damage shown in an adjacent area to the piping on the photo at exhibit 15, tab 2, and yet there was unburned ground cover between the burned area and the piping. The source of this burning was not clear, according to Mr. White.

Mr. White agreed that if the piping was solidly covered, the likelihood of a falling ember causing ignition was remote, but if it had occurred, the pipe would have burned in a similar fashion to that shown on the photographs. Mr. Rosenhek noted that in the photograph, exhibit 15, tab 7, there was no evidence of piping above the receptacle, only melted piping below the receptacle. But Mr. White did not agree that this implied that the receptacle was the only possible source of ignition. The pipe would have been difficult to ignite, but it would burn providing there was a competent source of ignition. An energized outlet could have been a source of ignition but this was in direct conflict with the Grays’ evidence that the power had been turned off, and the lack of evidence of electrical failure.

Mr. White acknowledged that the member’s opinion was that arc tracking had been a fundamental cause of the fire and property loss. He acknowledged also that the member was the only investigator to have examined the receptacle and that Mr. White was unable to do so. Mr. White stated that there was a difference of opinion between the member and himself.

Mr. White agreed that the member, Mr. Habash and himself could have different opinions and could reach different conclusions from the evidence. Mr. White further agreed that Mr. Habash was a reasonable and respected forensic engineer, but did not agree that Mr. Habash represented a “body of

opinion” any more than any other qualified practitioner.

Regarding the level of detail in the Walters report of August 16, 1999, which was signed by the member, Mr. White agreed that the form and content was a matter of style. He had seen previous reports by Walters, and would have liked to have seen more detail in the report. With reference to the February 7, 2002 letter signed by the member on behalf of Walters, Mr. Rosenhek asked Mr. White to assume that the member intended the letter to be read along with the 1999 report, and that the cause of the ignition of the PVC piping was heat from an electrical fault. If these assumptions were true, Mr. White agreed that the member was conveying the opinion that the electrical fault ignited and sustained the fire, and Mr. White agreed that this would be consistent with the member’s conclusions. However, Mr. White felt that the opinion was too strong based on the facts at hand and it is Mr. White’s opinion that there was insufficient proof for the member’s conclusion.

In response to questions from the members of the panel, Mr. White stated that he did not secure the NFPA certification until late in his career and in his opinion this was a “formality.” He stated that he did not need to see the receptacle to reach his conclusions, and confirmed his opinion that there was no hard evidence of arc tracking.

This completed the evidence called on behalf of the association.

For the defence, Mr. Rosenhek, counsel for the member and Walters, then called the following witnesses:

Timothy E. Leier: In response to questions from Mr. Rosenhek, the member confirmed that he graduated in 1986 and has been an

association member since 1990, and has been involved in over 950 fire investigations and approximately 400 to 500 as of April 1999. He has taken several courses and is very familiar with the NFPA and NFPA 921 and refers to the NFPA on a daily basis. He is a member of several related professional associations and has appeared as an expert witness over 25 times. He has prepared technical papers and spoken at professional association meetings on the subject of fire investigation and on NFPA 921.

As a forensic engineer, he utilizes scientific and engineering principles to analyze evidence and to determine the cause of fires. His inspection of a fire scene involved the entire site and included taking photographs, gathering evidence and preparing notes and sketches. There are 50 or so forensic engineers in Ontario, including a relatively small number of those who only practise in the area of fire investigations.

Disagreement between two or more forensic engineers occurs frequently, as the subject of forensic investigations is often very complex. Evidence and circumstances are often unique and open to different interpretations.

Regarding the Crane Lake fire, the member stated that on April 28, 1999, he was retained by Mr. Dewar, who was acting on behalf of the Abols, and subsequently it was agreed that Mr. Dewar and Mr. Dahl would split his fee and that both parties would receive his report.

By way of background, the member stated that he understood that the fire had been discovered by an Ontario Hydro crew responding to a power failure, and they had contacted the MNR. The fire was believed to have started sometime during the night of April 25, 1999, and the morning of April 26, 1999.

The fire self extinguished. The member was aware that the Grays had said that the power had been shut off two weeks previously.

After meeting the insurance adjusters on the scene on April 28, 1999, the member stated that he began his investigation by a general walk-around of the whole scene. His intention was to gather all the information and data that he would need for his analysis and report. He then started his investigation in the area of least damage, the south-east corner where the tree had fallen.

He then reviewed photos that he had taken as his investigation proceeded from the fallen tree, along the road showing burn patterns on the ground cover, west to the Gray cottage, along the wiring to the outlet at the shore, and to the boathouse on the Abols property. He spent eight to 10 hours on site, and stated that he felt this was of critical importance in formulating his conclusions. The electrical receptacle, cable and heater tape were removed from the site for further analysis.

The member explained how the photographs showed:

- a steep incline from the cottage to the shoreline;
- the cable covered by rocks;
- rocks protecting the receptacle with very minor gaps in those rocks, which were piled about four rocks high;
- a very tight burn pattern adjacent to the cable showing no evidence of external fire;
- smoke staining of the underside of the rocks;
- the piping melted under the receptacle, showing less damage than the piping above the receptacle indicating, in the member’s opinion, that the fire had not propagated along the piping and that it was unlikely

that a falling ember had caused the fire in the piping; and

- after rocks were removed, the heat and smoke damage was only on the surfaces of the rocks that were faced inward toward the cable, which indicated to the member that the area of origin was under the rock cover at the receptacle.

The member stated that he had considered and ruled out other alternative causes of the fire:

- vandalism or similar intentional act;
- careless smoking;
- ignition of the piping by falling ember, because of the rock protection and very tight enclosed burn pattern.

The evidence that was removed from the scene was disassembled and photographed in a laboratory environment away from the scene, which the member stated afforded him an excellent opportunity to see the details of the damaged components, particularly the severe damage throughout the receptacle. The difference in the damage to the upper and lower portions of the receptacle was not consistent with an external fire, according to the member. The intensity of the damage to the lower portion of the receptacle indicated high temperatures and ignition at the face of the plug, which is consistent with arc tracking. The member stated that his inspection of the receptacle and the other components was key to his finding that current leakage and arc tracking was the probable cause of ignition.

The member stated that he felt that the preponderance of physical evidence meant that the receptacle was energized and, on this point, he stated that he disagreed with Mr. White's view that there was no indication that the receptacle was energized.

The member returned the components that he had removed from the site, but later these materials were lost.

The member stated that his letter of February 7, 2002 responded to Mr. Gray's letter of January 15, 2002, in which Mr. Gray had requested reconsideration of the cause and spread of the fire and also provided some additional information from others, including Ontario Hydro and the MNR. The letter and materials were reviewed by the member, but there was nothing in the member's opinion that required a change in his findings. After review of the materials provided by Mr. Gray, the member maintained that a sustained electrical fault would be sufficient to initiate and sustain the burning of the pipe. The member referred to safety code issues in his documents because the NFPA requires that the investigator offer comments on responsibility.

In cross-examination by Mr. Royce, the member agreed that reaching a conclusion that the cause of a fire was undetermined was not uncommon. He also agreed that the reports of fire investigations often have financial and legal implications, and that he understood the importance of clear, unambiguous language in his documentation. Regarding the use of oral evidence, the member stated that such evidence can be relevant but should not be used as the sole basis of a conclusion.

The photographs showed a relatively steep slope down from the cottage to the rock ledge at the shoreline. The concept of a falling ember starting the fire in the piping might be possible, according to the member, but in his opinion this alternative was not probable, and was ruled out as a probable cause of the fire. The fire could start at the box and burn upwards along the piping to the cottage. The piping could also burn

downwards, but at a reduced rate, according to the member. Once ignited, the pipe could burn along its entire length. A continuing electrical fault was not necessary to sustain combustion after the initial ignition.

Regarding the issue of arc tracking, the member stated that there are varying degrees of arc tracking, and that sufficient heat for ignition requires only a small amount of current, such as 250 milliamperes, and that level would not leave tracking. Burning would start in the plastic plug, then insulation and then other combustible materials and debris. The energized wire might not necessarily indicate damage, as had been suggested by Mr. White.

Responding to questions from the panel, the member confirmed his opinion that the power had not been turned off. He also stated that in a circuit with normal protection, at some point the circuit might be interrupted, but that it was possible in that instance for burning to be sustained.

Mazon J. Habash, P.Eng.: Mr. Rosenhek reviewed the C.V. of Mr. Habash, which showed association membership since 1988, membership in numerous professional organizations, and the involvement in over 1500 forensic investigations. He stated that he was very familiar with the NFPA.

Mr. Habash reviewed the 1999 Walters report, signed by the member and, in his opinion, the report met a reasonable standard of care. He stated that the report was reasonable and professional. It is not unusual for two or more professionals to disagree, since each investigator will bring his or her own background to the assessment of different factors. But such disagreements do not necessarily imply negligence.

Mr. Habash noted that it was improper for Mr. White not to have seen all the available photographs from the investigations. Mr. Habash stated that the member had been present for all of the evidence and that it was obviously very important to have been on the site, and as soon as possible after the fire. It was also very important that the member had seen the evidence from the materials that were removed from the site, particularly the electrical receptacle, which Mr. White was unable to see. Mr. Habash stated that the member's investigation was reasonable, consistent with what he would have done, in conformance with NFPA 921 and to a reasonable standard of care. His observation of the member's evidence regarding observations, conclusions, consideration of alternatives, technical accuracy and determination of probable cause were all reasonable in Mr. Habash's opinion.

Mr. Habash agreed with the member's conclusion about arc tracking and the damage to the receptacle. He did not agree with Mr. White that there was insufficient evidence to reach this conclusion. He stated that there are many instances where energized conductors do not show evidence or damage. Arc mapping was not needed, since there was no reason for it. He did not agree with the falling ember theory.

From the photos, there appears to have been melted piping and molten plastic remaining after the fire. Mr. Habash stated that there was probably less damage from the box to the shore than from the box to the cottage and that this was consistent with the different exposure of those locations.

Regarding the detail in the report, Mr. Habash stated that each engineer would have a particular style

and that there was no right or wrong answer. He found that the detail in the report was sufficient to justify the conclusions.

In cross examination by Mr. Royce, Mr. Habash agreed that the investigative process includes the testing of facts and judgment of probabilities. He agreed that arc tracking was the probable cause and that, following ignition, there was more burning that eventually spread to the piping, ground cover and debris. He did not know how long the arc tracking was happening before ignition. He believed that the photos showed evidence of arc tracking, but did not agree that the plug face was not melted. He thought that the photograph was not clear enough to say why there had been no damage to the plug.

He agreed that the plastic piping is generally resistant to burning and that burning could stop if not sustained. It would tend to burn more readily in an upwards direction than downwards or horizontally. He agreed with the member's statement concerning the sustaining of combustion of the plastic pipe, which was contained in the February 7, 2002 letter.

During questioning by members of the panel, Mr. Habash stated that arc tracking may have started earlier than the time of the fire and could start and stop, depending on ambient conditions or other factors. He stated that the original installation may possibly have been faulty. An external fire would not cause the type of damage in evidence in this situation. There appeared to be only two possible causes of the fire, arc tracking and a falling ember, and Mr. Habash believed that the arc tracking hypothesis was much more probable.

This completed the evidence called on behalf of the defence.

Closing Argument

In his closing argument on behalf of the association, Mr. Royce said that although there had been an agreement to a significant amount of the facts in this case, this was not a fact case.

The important subject matter of the Walters report and letter, which were signed by the member, contained opinion and conclusions that should be more probable than all other possibilities. If that was not the case, the cause of the fire should have been reported as "undetermined." There are two principal theories that have emerged as the most likely cause of the fire at the Gray cottage: arc tracking causing ignition at the receptacle, and a falling ember from a fire started by some other cause.

Mr. White, the member and Mr. Habash all agreed that the test is probable versus undetermined as set out in 2.3.6 of NFPA 921.

One central technical issue is the burning of the plastic piping to the water's edge and whether the piping could have been ignited either by arc tracking or as a result of an ongoing fire in the cottage. Both the member and Mr. Habash see cracks as evidence of arc tracking in the photographs of the receptacle, yet there are other cracks that are not explained. And in Mr. Royce's submission, the arc tracking argument is nonsense, noting that the member did not mention arc tracking in his report. There are important inconsistencies with the arc tracking theory:

1. There is no direct evidence of arc tracking.
2. The power must have been on in order for arc tracking to have occurred and the Grays have indicated that the power was off, and therefore, this is not a known fact.
3. There is no sign of electrical fault or damage, but if the power had been

on, there should have been signs of damage, according to Mr. White, although not according to the member and Mr. Habash.

There were also discrepancies among the expert opinions as to whether the plastic pipe could burn upwards or downwards on the slopes from the receptacle. In Mr. Royce's view, there was sufficient doubt or lack of direct evidence to imply that the finding in this case should have been reported by the member and Walters as "undetermined."

With reference to the allegations in appendix A of the Notice of Hearing, the relevant sections, according to Mr. Royce, were found in:

- 15(a), investigation and analysis not in conformance with standards;
- 15(b), not consistent with the NFPA;
- 15(c), should have said that the cause was undetermined; and
- 15(g)(ii), incorrect statement regarding the electrical fault.

Mr. Royce confirmed that there had been no evidence to support the allegations in:

- 15(h), bias of the report; and
- para. 18, sections 72(2)(b), 72(2)(d), and 72(2)(h).

On behalf of the association, Mr. Royce withdrew the allegation of incompetence.

In his closing argument on behalf of the member and Walters, Mr. Rosenhek pointed out that it was not the role of the panel to determine the cause of this particular fire, but rather to judge the conduct of the member and Walters. What evidence was there of an applicable standard and what evidence was there that this standard was breached? He suggested that the evidence of the member and Mr. Habash confirmed that the actions of the member and

Walters had been consistent with NFPA 921, which the experts agreed was applicable to this investigation.

Mr. Rosenhek provided the panel with information and citing of several other related cases.

Mr. Rosenhek said that this was a classic case of difference of expert opinions. On the evidence, experts had disagreed as to the cause of the damage to the receptacle and plug, on the burning characteristics of the pipe, and other issues.

Mr. Rosenhek noted that Mr. White had not followed his own advice and had started his investigation without all available data.

During the investigation and preparation of his report, the member demonstrated that he was competent, experienced and knowledgeable in this field. His actions and conclusions were supported by Mr. Habash, another expert known and respected by Mr. White.

Arc tracking is not mentioned specifically in his report, but on page 9 of the report the concept of current leakage at the face of the receptacle is described in detail.

Decision

(i) Onus and Standard of Proof

The association bears the onus of proving the allegations in accordance with the standard of proof with which the panel is familiar, set out in *Re: Bernstein and College of Physicians and Surgeons of Ontario (1977) 15 O.R. (2d) 477*. The standard of proof applied by the panel, in accordance with the Bernstein decision, was a balance of probabilities with the qualification that the proof must be clear and convincing and based upon cogent evidence accepted by the panel. The panel also recognized that the more serious the allegation to be proved, the more cogent must be the evidence.

In this case, the panel noted that although the most serious of the allegations had been withdrawn by the

association, the remaining allegations against the member and holder were serious and that findings of guilt under any of those allegations could have important implications to the member, the holder, and their reputations.

(ii) Decision

Having considered the evidence and the onus and standard of proof, the panel finds that the member and Walters committed an act of professional misconduct as alleged in the Notice of Hearing. In particular, the panel found that the member and Walters were guilty of professional misconduct pursuant to section 72(2)(a) of Regulation 941, in that the report and followup letter authored by the member were acts or omissions in the carrying out of their work that constituted a failure to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances.

With reference to 15(b) of appendix A of the Notice of Hearing, the report by the member did not follow the procedures set out in NFPA 921 in conducting the fire investigation and reaching the conclusion with respect to the probable cause of the fire. And with reference to 15(g)(ii) of appendix A of the Notice of Hearing, the member incorrectly stated in the followup letter of February 7, 2002, that an electrical fault current of less than 15 or 20 amperes would have provided sufficient energy to sustain burning of the piping, when a length of #14/3 electrical cable loaded to 20 amperes would run at a higher than rated temperature, but would not produce sufficient heat to cause the combustible vapours necessary to sustain combustion of the pipe, to be given off the heavy PVC pipe.

Reasons for Decision

The panel accepted much of the evidence by the member and Mr. Habash regarding the adequacy of the investigation. However, and as had been

pointed out by Mr. White, the panel felt that the report should have been more detailed in terms of the other alternatives that were possible causes and that were ruled out by the member and Walters. The panel accepted the interpretation by Mr. White of NFPA 921, regarding the need for a systematic review of alternatives.

The panel accepted the credentials of both Mr. White and Mr. Habash as satisfactory to provide expert evidence in this hearing. Although Mr. Habash's opin-

ion was that the investigation and report by the member were sufficient, and that the form and content of the report met a reasonable standard of care, the panel felt that Mr. White's opinion was closer to the text of chapter 2 of NFPA 921. And, since both experts, as well as Mr. Leier, had stated that they were familiar with and routinely relied upon NFPA 921, the panel accepted the opinion of Mr. White on this point.

There was considerable disagreement among the expert opinions regarding the

concept of arc tracking. But there were also important implications to the arc tracking concept that should have been dealt with more fully by the member and Walters. There was no physical evidence that the circuit and the receptacle were energized prior to the fire. There were differences in the expert opinions about whether an energized circuit would have shown indications of damage. And the panel felt that this issue should have been more fully explained and evaluated in the report to adequately support the arc tracking theory.

The panel also noted that the member had agreed that his letter of February 7, 2002, which bears his signature and seal, contained an important discrepancy dealing with the heating from an electrical fault.

Penalty

On consent, the panel subsequently received written submissions from the parties as to penalty. Counsel for the association submitted that the appropriate penalty to be imposed upon the member and Walters would be:

- (a) that permission to use the "consulting engineers" designation granted to Walters be suspended for one month;
- (b) that the member and Walters receive a reprimand, the fact of which would be recorded on the Register of PEO;
- (c) that the member would write and pass the Professional Practice Examination within 12 months from the date of the hearing, failing which his licence would be suspended until the examination was passed, to a maximum of 12 months, after which, if the examination had not yet been passed, his licence would be revoked;
- (d) that costs be paid to PEO in the amount of \$20,000; and

Notice of Licence Resignation

On October 4, 2005, **Alan S. Fraser** resigned his licence and returned his seal and licence certificate to PEO. In addition, Fraser provided PEO with a written irrevocable undertaking that he would never again apply for a professional engineer licence or engage in the practice of professional engineering in Ontario or any other Canadian jurisdiction. Fraser also agreed to pay costs to PEO in the amount of \$5,000.

In return for these actions, PEO sought and obtained, on the same date, an order from the Discipline Committee allowing PEO to withdraw the allegations of incompetence and professional misconduct against Fraser that were set out in a Notice of Hearing dated August 3, 2005. The order was obtained pursuant to Rule 8 of the Discipline Committee Rules of Procedure. At no time did Fraser admit to any incompetence or professional misconduct.

Notice of Licence Resignation

On October 24, 2005, **James C. Buchanan** resigned his licence and returned his seal and licence certificate to PEO. In addition, Buchanan provided PEO with a written irrevocable undertaking that he would never again apply for a professional engineer licence or engage in the practice of professional engineering in Ontario or any other Canadian jurisdiction.

In return for these actions, PEO sought and obtained, on the same date, an order from the Discipline Committee allowing PEO to withdraw the allegations of incompetence and professional misconduct against Buchanan that were set out in a Notice of Hearing dated July 13, 2005. The order was obtained pursuant to Rule 8 of the Discipline Committee Rules of Procedure. At no time did Buchanan admit to any incompetence or professional misconduct.

- (e) that the Decision and Reasons of the Discipline Committee be published with names.

In seeking this penalty, counsel for the association submitted that the panel's finding that the member, in the course of his employment with Walters, had prepared an incomplete report with respect to the fire investigation and had subsequently forwarded a letter to the solicitor for Mr. and Mrs. Gray that contained a statement that was of central importance to his reasoning and that was not entirely accurate, called for a clear indication of disapproval by the Discipline Committee. The penalty proposed by the association was intended to balance this need for clear disapproval with the fact that the member and Walters were acquitted of a substantial number of the allegations set out in the Notice of Hearing.

Counsel for the member and Walters submitted that the allegation of incompetence was withdrawn during the course of the hearing and that the member and Walters were acquitted of all charges except for the finding pursuant to subsection 72(2)(a) of Regulation 941, which, in his submission, was a far less serious allegation than the main allegations against the member and Walters. Counsel further noted that the member and Walters had cooperated with the association and had agreed upon all the significant facts in the ASE, thereby shortening the hearing and reducing the number of witnesses. Counsel also noted that the member is a knowledgeable, articulate and conscientious forensic engineer who has had an unblemished career since he began practising in 1988.

Counsel, in response to the submissions of counsel for the association, submitted the following:

- (a) that the request to suspend the "consulting engineers" designation bore no relation to the issues raised in the case, nor to the panel's findings of guilt, nor could it be justified on the grounds of either specific or general deterrence;

- (b) that it was agreed that this was an appropriate case for a reprimand, but that the reprimand should be oral and not recorded on the Register;

- (c) that the member requested an opportunity to write the National Professional Practice Examination in Alberta as an alternative to passing the Ontario Professional Practice Examination ("OPPE"), as the member now resides and practises in Alberta and would incur substantial unwarranted expense if required to return to Ontario to write the OPPE;

- (d) that the request for costs in the amount of \$20,000 was excessive, given that the member and Walters were only found guilty of one of a substantial number of allegations set out in the Notice of Hearing, and given that costs are only rarely ordered; and

- (e) that it was submitted that the Decision and Reasons of the Discipline Committee be published without disclosing the names of either the member or Walters, given that the publicity associated with the charges, the attendance of members of the public at the hearing and the negative consequences of the finding of guilt in terms of reputation and livelihood for the member and Walters adequately met the goals of specific and general deterrence and having regard to the penalties in previous recent cases.

Penalty Decision

The panel deliberated and makes the following order as to penalty:

- (1) **The member is to be reprimanded, and the fact of the reprimand shall be recorded on the Register for two years from the date of this decision;**

- (2) **The following term, condition or limitation is imposed on the member's licence:**

- (a) **the member shall successfully write the Ontario Professional Practice Examination within one year of the date of this decision. The panel is prepared to permit the member to write the National Professional Practice Examination in Alberta in order to satisfy this condition.**

- (3) **The member shall pay to the association costs of \$10,000 within one year of the date of this decision; and**

- (4) **This decision of the Discipline Committee shall be published in *Gazette*, together with the names of the member and Walters.**

Reasons for Penalty Decision

The panel agreed that the member had breached the Regulation cited above, but that his conduct did not merit the extent of penalty proposed by the association. A suspension of Walters' consulting designation is deemed to be inconsistent with the extent of the misconduct.

A recorded reprimand and a requirement to write the Professional Practice Examination will, in the view of the panel, appropriately emphasize the extent to which the profession regards negligent behaviour, and is consistent with the level of misconduct that the member has been found guilty. Also, the cost penalty called for by association counsel was held by the panel to be excessively severe given the nature and extent of the misconduct. The panel determined that a cost penalty as indicated above is appropriate.

The written Decision and Reasons in this matter were dated May 26, 2005, and were signed by the Chair of the panel, Lawrence McCall, P.Eng., on behalf of the other members of the panel: Monique Frize, P.Eng., Santosh Gupta, P.Eng., Nick Monsour, P.Eng., and David Smith, P.Eng.

Notice of Licence Suspension

At a discipline hearing held on November 7, 2005, a panel of the Discipline Committee found **William L. Haas, P.Eng.**, guilty of professional misconduct and subsequently ordered that his licence be suspended for a period of two months effective December 1, 2005. The panel also ordered that Mr. Haas' "consulting engineer" designation be revoked. Mr. Haas waived his right of appeal in this matter. A summary of the Decision and Reasons of the Discipline Committee will be published in due course.

Notice of Licence Suspension

At a discipline hearing held on November 23, 2005, a panel of the Discipline Committee found **Eric Desbiens, P.Eng.**, guilty of professional misconduct and subsequently ordered that his licence be suspended for a period of six months. Mr. Desbiens waived his right of appeal in this matter and therefore the licence suspension took effect immediately. A summary of the Decision and Reasons of the Discipline Committee will be published in due course.

Discipline Hearing Schedule

This schedule is subject to change without public notice. For further information, contact the complaints and discipline coordinator at 416-840-1072; toll free 800-339-3716, ext. 1072. Any person wishing to attend a hearing should contact the complaints and discipline coordinator.

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 member or Certificate of Authorization holder should be made based on the allegations listed herein.

Sotiros (Sam) Katsoulakos, P.Eng., and Micro City Engineering Services Inc. (MCES)

February 27-March 3, 2006

It is alleged that Katsoulakos is guilty of incompetence as defined in section 28(3)(a) of the *Professional Engineers Act*. It is alleged that Katsoulakos and MCES are guilty of professional misconduct as defined in section 28(2)(b) of the *Professional Engineers Act*. The sections of Regulation 941 made under the Act relevant to the alleged professional misconduct are:

- (a) *Section 72(2)(a)*: negligence;
- (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;
- (c) *Section 72(2)(d)*: failure to make responsible provision for complying with applicable statutes, regulations, standards, codes, by-laws and rules in connection with work being undertaken by or under the responsibility of the practitioner;
- (d) *Section 72(2)(e)*: signing or sealing a final drawing, specification, plan, report or other document not actually prepared or checked by the practitioner;

- (e) *Section 72(2)(h)*: undertaking work the practitioner is not competent to perform by virtue of the practitioner's training and experience; and
- (f) *Section 72(2)(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.

Raikesh (Richard) Bedi, P.Eng.

March 27-31, 2006

It is alleged that Bedi is guilty of incompetence as defined in section 28(3)(a) of the *Professional Engineers Act*. It is alleged that Bedi is guilty of professional misconduct as defined in section 28(2)(b) of the *Professional Engineers Act*. The sections of Regulation 941 made under the Act relevant to the alleged professional misconduct are:

- (a) *Section 72(2)(a)*: negligence;
- (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;
- (c) *Section 72(2)(d)*: failure to make responsible provision for complying with applicable statutes, regulations, standards, codes, by-laws and rules in connection with work being undertaken by or under the responsibility of the practitioner;
- (d) *Section 72(2)(h)*: undertaking work the practitioner is not competent to perform by virtue of the practitioner's training and experience; and
- (e) *Section 72(2)(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.

John H. Vincent, P.Eng., and 509228 Ontario Ltd. (cob as J.H. Vincent Services)

May 24-26, 2006

It is alleged that Vincent is guilty of incompetence as defined in Section 28(3)(a) of the *Professional Engineers Act*. It is alleged that Vincent and J.H. Vincent Services are guilty of professional misconduct as defined in Section 28(2)(b) of the *Professional Engineers Act*. The sections of Regulation 941 made under the Act relevant to the alleged professional misconduct are:

- (a) *72(2)(a)*: negligence;
- (b) *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;
- (c) *72(2)(d)*: failure to make responsible provision for complying with applicable statutes, regulations, standards, codes, by-laws and rules in connection with work being undertaken by or under the responsibility of the practitioner;
- (d) *72(2)(h)*: undertaking work the practitioner is not competent to perform by virtue of the practitioner's training and experience; and
- (e) *72(2)(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.

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