

APEGA members and permit holders are required to practise engineering and geoscience skillfully, ethically, and professionally. They must meet all prescribed requirements and follow all applicable legislation and regulations, such as the *Engineering and Geoscience Professions Act, General Regulation,* Code of Ethics, and APEGA bylaws. Investigation and enforcement—followed by, when necessary, judgment based on a fair hearing of the facts—are requirements of ours in service to the public interest. For more information, please visit www.apega.ca/enforcement/discipline-decisions.

Date: July 5, 2021

Discipline Case Number: 21-010

#### IN THE MATTER OF A RECOMMENDED DISCIPLINE ORDER OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA

Pursuant to the Engineering and Geoscience Professions Act, being Chapter E-11 of the Revised Statutes of Alberta 2000 Regarding the Conduct of MR. JOHN WISEMAN, P.Eng. and in the matter of the Conduct of OPTIMUM PROJEX LTD.

The Investigative Committee of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) has investigated the conduct of Mr. John Wiseman, P.Eng. (the Registrant) and Optimum Projex Ltd. (referred to as the Company or Permit Holder) with respect to an allegation of unprofessional conduct and unskilled practice pursuant to Section 44(1) of the *Engineering and Geoscience Professions Act*.

#### A. THE COMPLAINT

The Complainant in this matter is APEGA's former Director, Investigations (the Director). During the investigation of a separate APEGA complaint (file IC 19-19 refers), the Investigation Panel Chair (the Panel Chair) raised several concerns with the Director regarding a Hazardous Area Classification Evaluation Report (the report) issued to Client A, in April 2020, by the Registrant on behalf of the Permit Holder. Client A had provided a copy of the Registrant's report to the Investigation Panel pursuant to its investigation of IC 19-19.

The present investigation related to an allegation received on June 3, 2020 that the Registrant, through his company, the Permit Holder, engaged in unprofessional conduct and unskilled practice of the profession, with respect to issuing the report pertaining to a fuel-train enclosure system for oil storage tank heaters situated throughout Alberta (the enclosure).

The Investigative Committee focused on the following allegation which can be summarized as follows:

The Registrant's report contains flawed methodology resulting in an incorrect conclusion.



#### **B. AGREED STATEMENT OF FACTS**

#### (i) Background:

- 1. The Company has been an APEGA Permit Holder since 2018.
- 2. The Company is a consulting firm located in Calgary, Alberta.
- 3. The Registrant is the Responsible Member for the Company.
- 4. The Registrant holds a Bachelor's Degree in Electrical Engineering from Lakehead University (1988).
- 5. The Registrant specializes in the areas of controls, instrumentation, electrical design and field commissioning of oil and gas facilities electrical power generation and distribution.
- 6. The Registrant has been a member of APEGA since 1990.
- 7. In January 2020, the Registrant was retained by the client to complete the report. In April 2020, the Registrant completed the report and issued it to the client. The client provided a copy of the report to the Investigation Panel pursuant to a separate investigation (IC 19-19 refers).
- 8. The Investigation Panel Chair assigned to file IC 19-19, a professional engineer, discovered deficiencies in the report during his review and reported them to the Director.
- 9. The Registrant and Permit Holder have fully cooperated with the APEGA investigation.
- (ii) Facts Relating to the Allegation:

# The Registrant's report contains flawed methodology resulting in an incorrect conclusion.

- 10. The report models air flow based on the assumption that the enclosure is a building. The enclosure in question is a metal box used to protect gas fuel train equipment.
- 11. If the subject was a building and a pressure / flow test had been performed on that building, and the data was being used to design a ventilation system, then the analysis presented in the report is acceptable.

In the Matter of the Engineering and Geoscience Professions Act R.S.A. 2000, c. E-11 AND MR. JOHN WISEMAN, P.Eng.and OPTIMUM PROJEX LTD. www.apega.ca/enforcement/discipline-decisions



- 12. The Registrant did not conduct a pressure / flow test.
- 13. The results of a pressure / flow test are required for determining the risk of explosion.
- 14. The Registrant relied upon air flow modelling using the entire ventilation opening for infiltration and used wind effects, resulting in an overestimated ventilation rate.
- 15. The Registrant incorrectly relied upon equation 48 in Chapter 16 of *The American Society of Heating, Refrigerating and Air-Conditioning Engineers Handbook* (ASHRAE) 2017.
- 16. ASHRAE 2017 was intended to be used for the HVAC (heating, ventilation and air conditioning) design of buildings.
- 17. The Registrant's report incorrectly concluded that the enclosure would achieve adequate ventilation.
- 18. The Permit Holder did not obtain an independent review of the Registrant's report.
- 19. *APEGA's Guideline for Professional Practice Management Plans* (February 2013) recommends that a Company's quality control ensures:

"that the Permit Holder has adequate supervision and controls of all the professional work to ensure that it is done competently and with due diligence. It may include: definition of project scope and objectives, use of codes and standards, checking work for accuracy, independent reviews, conformance with current acceptable professional practices, coordination of multi-disciplinary teams, and possible presence of a formal quality management plan."

20. *APEGA's Guideline for Professional Practice* (January 2013) recommends the following relative to quality control procedures:

"Effective procedures should be in place to ensure that an appropriate standard of technical quality is maintained. In any situation which can impact public safety, the professional practice should provide for independent confirmation of computations, reports, drawings and specifications, and ensure appropriate documentation of the results. This confirmation may come from within the organization, but it is preferable that there be no direct involvement of the 'checkers' with the project being checked. Individual practitioners will also, at times, need outside verification of critical work."

21. The Registrant acknowledges that he followed a flawed methodology and thereby



reached an incorrect conclusion concerning the air changes per hour due to infiltration ventilation for the enclosure.

22. The Company acknowledges that it failed to conduct an independent review of the Registrant's work.

#### C. CONDUCT BY THE REGISTRANT

- 23. The Registrant freely and voluntarily admits that at all relevant times he was a professional member of APEGA and was thus bound by the Engineering and Geoscience Professions Act and the APEGA Code of Ethics.
- 24. The Registrant acknowledges that the conduct described above constitutes unprofessional conduct and / or unskilled practice as defined in Section 44(1) of the *Act*:

Section 44(1) Any conduct of a professional member, licensee, permit holder, certificate holder or member-in-training that in the opinion of the Discipline committee or the Appeal Board,

- a) is detrimental to the best interests of the public,
- *b)* contravenes a code of ethics of the profession as established under the regulations,
- c) harms or tends to harm the standing of the profession generally,
- d) displays a lack of knowledge of or lack of skill or judgement in the practice of the profession, or
- e) displays a lack of knowledge of or lack of skill or judgement in the carrying out of any duty or obligation undertaken in the practice of the profession

whether or not that conduct is disgraceful or dishonorable, constitutes either unskilled practice of the profession or unprofessional conduct, whichever the Discipline Committee or the Appeal Board finds.

- 25. The Registrant acknowledges that the conduct described above is conduct that is detrimental to the best interests of the public and displays a lack of knowledge or lack of skill or judgement in the practice of the profession.
- 26. Further, the conduct described in the Allegation constitutes a breach of Rule #1, #2 and #4 of the *Code of Ethics*, which state:
  - 1. Professional engineers and geoscientists shall, in their areas of practice, hold paramount the health, safety and welfare of the public and have regard for the environment.



- 2. Professional engineers and geoscientists shall undertake only work that they are competent to perform by virtue of their training and experience.
- 4. Professional engineers and geoscientists shall comply with applicable statutes, regulations and bylaws in their professional practices.

#### D. CONDUCT BY THE COMPANY

27. The Company acknowledges and admits that its conduct as described in Section B of this Recommended Order constitutes unprofessional conduct and / or unskilled practice as defined in section 44(1) of the *EGP Act*:

Section 44(1) Any conduct of a professional member, licensee, permit holder, certificate holder or member-in-training that in the opinion of the Discipline committee or the Appeal Board,

- a) is detrimental to the best interests of the public,
- *b)* contravenes a code of ethics of the profession as established under the regulations,
- c) harms or tends to harm the standing of the profession generally,
- d) displays a lack of knowledge of or lack of skill or judgement in the practice of the profession, or
- e) displays a lack of knowledge of or lack of skill or judgement in the carrying out of any duty or obligation undertaken in the practice of the profession

whether or not that conduct is disgraceful or dishonorable, constitutes either unskilled practice of the profession or unprofessional conduct, whichever the Discipline Committee or the Appeal Board finds.

28. The Company acknowledges that the conduct described above is conduct that is detrimental to the best interests of the public, displays a lack of knowledge or lack of skill or judgement in the practice of the profession and displays a lack of knowledge of or lack of skill or judgement in the carrying out of any duty or obligation undertaken in the practice of the profession.

#### E. RECOMMENDED ORDERS WITH RESPECT TO THE REGISTRANT

- 29. On the recommendation of the Investigative Committee, and by agreement of the Registrant with that recommendation, and following a discussion and review with the Discipline Committee Case Manager, the Discipline Committee hereby orders that:
  - a. The Registrant shall receive a letter of reprimand, a copy of which will be maintained for one year in the Registrant's APEGA registration file and be



considered at any future date by APEGA.

- b. The Registrant shall provide written confirmation to the Director, Enforcement, within thirty days of being notified that the Recommended Order has been approved, that he has reviewed the following APEGA publications and that the Registrant will comply with the requirements therein:
  - *Guideline for Professional Practice Management Plans* (February 2013);
  - Guideline for Professional Practice (January 2013);
  - Guideline for Ethical Practice (February 2013);
  - Guideline for Relying on Work Prepared by Others (March 2021).
- c. The Registrant must take and pass the National Professional Practice Exam (NPPE) within one year of this Recommended Order being approved by the Discipline Committee Case Manager. The NPPE shall be completed at the Registrant's expense and the Registrant will be responsible for providing the Director, Enforcement with proof of successful completion.

If there are extenuating circumstances, the Registrant may apply to the Director, Enforcement for an extension prior to the deadline. If the above noted NPPE is not successfully completed within one year or the agreed upon extension, the Registrant shall be suspended from the practice of engineering until the above noted NPPE has been successfully completed.

d. The Registrant shall successfully complete a post-secondary course in hazardous area classification and / or fugitive emissions studies, that is satisfactory to the Director, Enforcement, such as Electrical Hazardous Area Classifications and Hazardous Area Wiring (EPIC Educational Program Innovations Center), within one year from the date this Recommended Order has been approved by the Discipline Committee Case Manager. This course shall be completed at the Registrant's expense and the Registrant will be responsible for providing the Director, Enforcement with proof of successful completion.

If there are extenuating circumstances, the Registrant may apply to the Director, Enforcement for an extension prior to the deadline. If the above noted course is not successfully completed within one year or the agreed upon extension, the Registrant shall be suspended from the practice of engineering until the above noted course has been successfully completed.



- e. The Registrant shall be subject to a condition that he not engage in the following areas of engineering practice with respect to structures other than buildings until the course in paragraph 29(d) has been successfully completed, and the Director, Enforcement has confirmed receipt of proof of successful completion:
- Fugitive emission studies;
- Fuel gas-train weather enclosures;
- Hazardous area classification.

For greater certainty, the Registrant may continue practicing engineering in the above-noted fields for structures designated as buildings.

- f. The Registrant shall disclose that he was the subject of APEGA disciplinary procedures to all other engineering regulatory bodies to which he holds membership and provide each regulator with a copy of this Recommended Order. APEGA's Director, Enforcement shall be copied on all disclosures made by the Registrant.
- g. This matter and its outcome will be published by APEGA as deemed appropriate and such publication will name the Registrant.

#### F. RECOMMENDED ORDERS WITH RESPECT TO THE COMPANY

- 30. On the recommendation of the Investigative Committee, and by agreement of the Company with that recommendation, and following a discussion and review with the Discipline Committee Case Manager, the Discipline Committee hereby orders that:
  - a. The Company will receive a letter of reprimand, a copy of which will be maintained in the Company's APEGA registration file for a period of one year and be considered at any future date by APEGA.
  - b. The Company's Chief Operating Officer or designated senior officer shall take the APEGA Permit to Practice seminar in person or online within six months of this RDO being approved and will be responsible for providing the Director, Enforcement with proof of successful completion.
  - c. The Company's Chief Operating Officer or designated senior officer shall provide written confirmation to the Director, Enforcement within thirty (30) days of being notified that the RDO has been approved, that he / she has



reviewed the following APEGA publications in consultation with the appointed Responsible Member, and that the Company will comply with the requirements therein:

- Guideline for Ethical Practice (February 2013);
- Guideline for Professional Practice Management Plans (February 2013);
- Guideline for Professional Practice (January 2013);
- Guideline for Relying on Work Prepared by Others (March 2013).
- d. The Company shall pay a fine of \$500.00 within one year of this RDO being approved.
- e. If the above noted orders and their deadlines are not met by the Company's Chief Operating Officer and / or designated senior officer, unless an extension is granted in accordance with (g) below, the Company's APEGA Permit to Practice shall be suspended until the Company's Chief Operating Officer and / or designated senior officer completes the specified requirement.
- f. The Company may apply to the Director, Enforcement for an extension of any of the orders referred to above at paragraphs (b) – (d) by submitting a request for an extension prior to expiry of the deadline. If the Company fails to comply with any of the Orders above, and fails to seek or be granted an extension, the Company's APEGA Permit to Practice shall be suspended until they have complied.
- g. The Company shall disclose to all other engineering regulatory bodies to which the Company holds a permit to practice that it was the subject of a complaint to APEGA and provide each regulator with a copy of this Order. APEGA's Director, Enforcement shall be copied on all disclosures made by the Company.
- h. This matter and its outcome will be published by APEGA as deemed appropriate and such publication will name the Company.

Signed,

#### MR. JOHN WISEMAN, P. Eng.

#### [CONTACT A]

Primary Contact, Optimum Projex Ltd.



**MR. IAN BUTTERWORTH**, P.Eng. Panel Chair, APEGA Investigative Committee

**MS. DIANA PURDY**, P.Eng. Case Manager, APEGA Discipline Committee

Date: July 5, 2021