

SUMMARY OF DECISION AND REASONS

In the matter of a hearing under the *Professional Engineers Act, R.S.O. 1990, c. P.28*; and in the matter of a complaint regarding the conduct of a member of the Association of Professional Engineers of Ontario and a holder of a certificate of authorization.

The panel of the Discipline Committee met to hear this matter on the 19th of July, 2018 at the offices of the Association of Professional Engineers of Ontario at Toronto.

At the hearing, counsel for the association, the member and the holder of the certificate of authorization, submitted an Agreed Statement of Facts, including an admission by the member and the holder of the certificate of authorization that they were guilty of professional misconduct under section 28(2)(b) of the act.

The panel conducted a plea enquiry and was satisfied that the member's and the holder of the certificate of authorization's admissions were voluntary, informed and unequivocal.

THE ALLEGATIONS

The Statement of Allegations against the member and the holder of the certificate of authorization, as referred by the Complaints Committee, was dated December 14, 2017.

SUMMARY OF AGREED STATEMENT OF FACTS

1. The respondent is a professional engineer licensed under the *Professional Engineers Act* (the act). The respondent is the president and the engineer taking responsibility for the professional engineering services provided by the respondent, who holds a certificate of authorization under the act.
2. In the summer of 2015, the respondents were retained by a vendor to provide heating/cooling load calculations for a solarium that the vendor had been retained to construct for the complainant. The original plan was for the exterior wall of the complainant's home to be removed so that the solarium would be continuous with the interior of the house.
3. The member signed and sealed the heating/cooling load calculations on August 24, 2015 (the original calculations). The original calculations were submitted to the city as part of the permit process, and the city relied upon them in granting the permit. The original calculations erroneously used R-40 values for the solarium's glass ceiling. The correct value for all the glass was R-4. The original calculations called for a minimum of 39,404 BTU/HR for cooling.
4. The complainant decided to retain the home's original exterior wall, and to have the solarium built as a separate (attached) structure. No new building permit was required, and no new calculations were done. After the solarium was built, the complainant complained to the city about, among other things, significant underperformance of the HVAC unit, including excessive heat gain in the solarium.
5. In the context of the city's review of the complaint, the member provided new load calculations to justify the design as built (the revised calculations), under cover of a letter dated June 30, 2016, in which he stated, among other things:
 - That he "reviewed" the calculations, which had been done by his CET.
 - That "all factors used in calculating solar gain are reasonable."
 - That "there is no ceiling consideration in the detached sunroom. It was considered in the extension."
 - That "the load calculations are reasonable and the design is in compliance with the OBC."
6. The revised calculations assigned an R-4 value to the glass. However, the revised calculations included significantly lower (incorrect) cooling factors and did not account for some of the surface area of the solarium structure, including the ceiling. The revised calculations called for a minimum of only 15,487 BTU/HR for cooling, even though the dimensions of the solarium remained unchanged. This value matched the capacity of the unit that was installed by Florian.
7. The city wrote to the complainant on or about July 4, 2016, to advise her that the matter would be closed based on the explanations that had been provided by the member. The complainant filed her complaint in August 2016.
8. A copy of the complaint was provided to the member. In his initial response to the complaint dated September 8, 2016, the member asserted that the complaint concerning the respondents' work was "totally groundless."

9. PEO subsequently retained an independent engineer (the expert) to review and comment on the calculations submitted by the respondents. The expert concluded that both the original and the revised calculations contained significant errors. Among other things, the respondents had miscalculated the surface areas of the solarium structure and used incorrect cooling load factors. The expert concluded, among other things, that “by miscalculating the surface areas of the structure and using incorrect cooling load factors,” the respondents had not met the standard expected of a reasonable practitioner under the circumstances.
10. The expert’s report was provided to the member. In his response to the expert’s report, the member finally admitted that the revised calculations had overlooked a significant solar gain, with the result that the cooling load was underestimated. The member attributed the error to his CET, and stated that he had not checked his CET’s work before stamping the revised calculations, contrary to his assertions to the city in the June 30, 2106 letter referred to above.
11. In an email to the investigator dated May 29, 2017, the member stated that he contacted the homeowner to offer to come to the site to “inspect the situation.” He further stated that the solution:

“will involve installing a larger, 3-ton cooling unit to replace the 11/2 ton. This cost will most likely be absorbed by my technician as he was the one who made the error. It will be a lesson for him.”
12. The respondents admit that:
 - a) The original and the revised calculations were inaccurate and/or inappropriately calculated, in that they:
 - (i) reflected errors, omissions or deficiencies that a reasonable and prudent practitioner would not be expected to make; and
 - (ii) failed to meet the standards of practice; and further admit that
 - b) The member signed and sealed the heating/cooling calculations prepared by his CET, without checking them, and failed to take reasonable steps to verify the accuracy and/or appropriateness of the heating/cooling design plans, including the original and/or revised calculations, even after the issue was drawn to his attention, and the accuracy and/or appropriateness of those plans and/or calculations was being questioned.
13. By reason of the aforesaid, the parties agree that the respondents are guilty of professional misconduct under section 28(2)(b) of the act by reason of:
 - a) engaging in an act(s) or an omission(s) 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, amounting to “negligence” and, as such, engaging in professional misconduct as defined in s. 72(2)(a) of Ontario Regulation 941; and
 - b) signing or sealing a final drawing, specification, plan, report or other document not actually prepared or checked by the member and, as such, engaging in professional misconduct as defined in s. 72(2)(e) of Ontario Regulation 941.

The respondents stated that they had independent legal advice, or had the opportunity to obtain independent legal advice, with respect to their agreement as to the facts.

PENALTY

The parties submitted a written Joint Submission as to Penalty and association counsel provided oral submissions as to the appropriateness of the Joint Submission as to Penalty. In support of the penalty agreement, counsel for the association referred to two previous decisions: *Association of Professional Engineers of Ontario v. A Member* (March/April 2004 edition of *Engineering Dimensions*) and *Association of Professional Engineers of Ontario v. A Member* (March/April 2007 edition of *Engineering Dimensions*).

In both cases, the panels of the Discipline Committee considered various factors, including absence of subsequent incidents of misconduct and the member’s admissions and co-operation with the association and determined that both matters should be published without reference to names.

The panel accepted the Joint Submission as to Penalty, and accordingly, ordered:

- a) Pursuant to s. 28(4)(f) of the act, the respondents shall be reprimanded, and the fact of the reprimand shall be recorded on the register for a period of one (1) year;
- b) Pursuant to sections 28(4)(i) and 28(5) of the act, the finding and order of the Discipline Committee shall be published in summary form in PEO's official publication, without reference to names;
- c) Pursuant to s. 28(4)(d) of the act, it shall be a term or condition on the member's licence that he shall, within fourteen (14) months of the date of the Discipline Committee's decision, successfully complete PEO's professional practice examination (PPE);
- d) Pursuant to s. 28(4)(b) and (k) of the act, in the event the member does not successfully complete the PPE within the time set out above, his licence shall be suspended for a period of ten (10) months, or until he successfully completes the PPE, whichever comes first; and
- e) There shall be no order as to costs.

Although the panel had some concern with clause (b) of the Joint Submission as to Penalty that requires the publishing of the finding and order without reference to names, the panel acknowledges that this is a possibility that is provided for in the act, and that the panel's discretion to interfere with a joint submission on penalty is limited.

The panel concluded that the proposed penalty is reasonable and in the public interest. The member has co-operated with the association and, by agreeing to the facts and proposed penalty, has

accepted responsibility for his actions and has avoided unnecessary expense to the association. There was no apprehension that the member lacked technical competence or posed a danger to the public. The panel considered the two previous discipline decisions referred by counsel for the association, and found that they provide reasonable guidance with respect to penalty.

The Decision and Reasons was signed on August 28, 2018, by the panel chair, Albert Sweetnam, P.Eng., on behalf of the panel, which included Michael Chan, P.Eng., David Germain, JD, Kamal Elguidi, P.Eng., and Warren Turnbull, P.Eng.