

# RECOMMENDED ORDER to the DISCIPLINE COMMITTEE

IN THE MATTER OF THE ENGINEERING, AND GEOSCIENCE PROFESSIONS ACT,

AND

IN THE MATTER OF THE CONDUCT OF Mr. Mike Seminatore, P.Eng. #80283

Investigation Case: #2021-25

# APEGA Recommended Order to the Discipline Committee

## In the matter of the Engineering and Geoscience Professions Act

and

# In the matter of the conduct of Mr. Mike Seminatore, P.Eng. #80283

The Investigative Committee of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) has conducted an investigation into the conduct of Mr. Mike Seminatore, P.Eng. (the "Registrant") with respect to a complaint submitted by **Example 10** (the "Complainant") dated June 10, 2021, (the "Complaint").

#### I. The Complaint:

The Complainant alleged that the Registrant engaged in unprofessional conduct and/or unskilled practice arising from his involvement as a structural engineer who provided a shoring tower design.

#### Background:

The Registrant was retained by **Example** (the "Client") for a large, commercial renovation project located in Edmonton. He was hired to design a temporary shoring structure to support a 2<sup>nd</sup> level concrete slab while a support column was going to be removed and replaced. The support column was approximately 30-feet tall, and the shoring was to support a load of over 104,000 pounds.

Once the shoring tower was built and put into place, a 2-inch section of concrete was removed from the column to see what was going to happen. Specifically the contractor wanted to see how the shoring system was going to react before they removed the column entirely.

Shortly after a 2-inch horizontal section of the column was removed, they noticed the concrete slab settling and the legs of the shoring tower deflecting. The concrete slab eventually came to rest back on the column and the shoring had visibly buckled and failed.

The project manager indicated that it was a very tense situation and luckily nobody got hurt. The building didn't sustain any property damage but they did have to put in a lot of emergency procedures in place to get the building re-supported.

As the Client was seeking engineering assistance, they contacted the Complainant who was well known in the demolition and shoring field.

The Client forwarded the Registrant's design and photographs of the failed tower to the Complainant. The Complainant identified some significant deficiencies with the design and claimed he had no choice but to submit a complaint to APEGA.

# Allegation:

The Investigative Committee completed an investigation with respect to the following allegation:

Whether the Registrant's shoring tower design was deficient and failed to meet the acceptable standards of engineering practice in Alberta.

# II. Agreed Statement of Facts:

As a result of the investigation, it is agreed by and between the Investigative Committee and the Registrant that:

#### A. Background:

- 1. At all relevant times the Registrant was an APEGA Professional Member and was thus bound by the *Engineering and Geoscience Professions Act* and APEGA's *Code of Ethics.*
- 2. At all relevant times, the Registrant's company, JMS Design Services Inc. (#13607) held a valid APEGA Permit to Practice and was thus bound by the *Engineering and Geoscience Professions Act* and APEGA's *Code of Ethics*.
- 3. The Registrant:
  - a. Graduated with a Bachelor of Science degree in Mechanical Engineering in 2006.
  - b. Was the sole engineer for JMS Design Services Inc.
  - c. Had been engineering masts and substructures for the oilfield drilling sector for over 15 years.
  - d. During Covid, jobs in the drilling sector significantly decreased and he expanded his services which included contract work for a small demolition company doing temporary falsework and structures.
  - e. After completing previous shoring projects, never had any issues or concerns raised with his previous work until this complaint.

# B. Scope:

- 4. The Registrant was retained by the Client to design a shoring tower.
- 5. The Client wanted the shoring tower to be built out of wood so that the material could be left in place and sacrificed during the backfilling of the area. This was also a cost-saving measure.
- 6. The Client provided the Registrant with the demolition drawings that were produced by others.

# C. Facts Related to the Allegation:

- 7. Upon reviewing the demolition drawings, the Registrant made his own calculations for the loads that would be imposed on the shoring tower and prepared multiple design variations for his Client.
- 8. The Client reviewed the different design variations, and elected to use the one that utilized a combination of wood and steel shoring posts.
- 9. The design consisted of two, 10-foot, identical wooden cubes to be built. The cubes would be stacked one on top of the other and secured in place. Then, MULTIPROP metal Peri-posts, expandable to 10-13 feet in length, would have their bases fastened to the top wooden cube, and the top expanded to the underside of the concrete slab.

2

- 10. The tower design consisted of 3 sections that were not continuously supported from the base of the cube to the top of the Peri posts. The design contained two distinct hinge points that were not adequately braced to prevent buckling.
- 11. With his design, the Registrant accounted for a vertical load only. A lateral load was not part of the Registrant's analysis.
- 12. When a section of the supporting column was removed, the concrete slab deflected and applied load to the shoring tower. The load buckled the midsection of the tower and one or more wooden cross brace connections broke away, contributing to the failure of the tower.
- 13. The Registrant, in his design analysis, failed to account for a minimum lateral load of at least 2% of the vertical load.

#### Authentication:

- 14. When the Registrant authenticated the 2 drawings, he officially acknowledged that his work met professional standards.
- 15. As per APEGA's authentication standard<sup>1</sup>, when the drawings were authenticated, the Registrant was confirming that they were technical in nature, complete for their intended purpose and could be relied upon for their intended purpose.
- 16. The Registrant's stamp and signature signified that he accepted responsibility for all the contents of the work included in the authenticated drawings.

#### Additional drawing deficiencies:

- 17. The Registrant failed to provide sufficient details regarding the connections between the wood framed members. For example, the types of screws to be used, their length and gauge, how many, and the fastening pattern were specifications that ought to have been included however were not.
- 18. There was a lack of information about the foundation that the shoring tower was to be placed upon. There was insufficient information about the base that the shored structure would be placed upon, and no information about the pounds/square foot that the base could withstand.
- 19. When used in a shoring tower application that is squared in shape, Peri Posts are typically installed with MRK frames which provide additional bracing and support. The Peri Posts in the Registrant's design were not laterally braced, and MRK frames were not included in the design.

Due Diligence:

- 20. The Registrant, by failing to provide sufficient connection details, relied on contractors to assemble the engineered shoring tower at their discretion.
- 21. When the Registrant reviewed the apparent loads that were provided to him by the demolition company, he determined the loads were significantly undersized for the project yet failed to follow up his concerns with the demolition company.
- 22. The Registrant, operating on his own, did not utilize a review process where his work could have been reviewed by another professional. Professional work products reviewed prior to authentication ensure that quality control and quality assurance measures are in place.

<sup>&</sup>lt;sup>1</sup> APEGA, Authenticating Professional Work Products, Professional Practice Standard, July 2019.

23. Based on the above, the Registrant's shoring tower design and drawings failed to meet the acceptable standard of engineering practice in Alberta.

#### D. Review of the Registrant's other structural work:

24. The Panel requested and reviewed 5 of the Registrant's projects related to structural engineering work, work that he is currently engaged in with oil rig structures. They found his work to be very detailed, specific, and demonstrated his ability to analyze structures, do calculations, use code references, and produce design notes that were easy to review.

#### III. Conduct:

25. The Registrant freely and voluntarily admits that the conduct as described above constitutes unprofessional conduct and unskilled practice as defined in Section 44(1) of the *Act.* 

# Section 44(1) of the Act:

44(1) Any conduct of a professional member, licensee, permit holder, certificate holder or memberin-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 a lack of skill or judgment in the practice of the profession or;

(e) displays a lack of knowledge or lack of skill or judgment 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.

26. Further, the Registrant acknowledges and admits that his conduct was also contrary to the Rules of Conduct and the APEGA Code of Ethics, as defined below.

#### APEGA Code of Ethics:

#### The Rules of Conduct:

- 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.
- 3. Professional engineers and geoscientists shall conduct themselves with integrity, honesty, fairness and objectivity in their professional activities.
- 4. Professional engineers and geoscientists shall comply with applicable statutes, regulations and bylaws in their professional practices.
- 5. Professional engineers and geoscientists shall uphold and enhance the honour, dignity and reputation of their professions and thus the ability of the professions to serve the public interest.

# IV. <u>Recommended Orders</u>

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:

- 27. The Registrant shall be reprimanded for his conduct and this order shall serve as the reprimand.
- 28. The Registrant shall be restricted from engaging in the practice of structural engineering as it relates to wood or temporary shoring structures in Alberta, indefinitely.
  - a. The Registrant may seek reconsideration of the terms of the restricted practice no earlier than two (2) years from the date of execution of this order.
  - b. Reconsideration would commence with a written request from the Registrant to APEGA's Director, Enforcement.
  - c. After two years, should the Registrant wish to practise in the design of wood or temporary shoring structures in Alberta, he may do so only under the direct supervision and control of a professional member of APEGA (the Supervisor), approved by the Director, Enforcement, for a period of two (2) years. The following procedure would apply:
  - i. The registered Structural Professional Engineer providing the direct supervision and control shall be known as the Supervisor.
  - ii. The Registrant shall not practise engineering, as defined in the *Engineering and Geoscience Professions Act* Section 1(q), independently while under direct supervision and control.
  - iii. The Registrant's restricted status shall be reflected in APEGA's Member Directory.
  - iv. The requirements of direct supervision and control are defined in 3.1 of the Relying on the Work of Others and Outsourcing practice standard.
  - v. Any Professional Work Products (PWPs) completed by the Registrant must be reviewed and authenticated by the Supervisor as outlined in the APEGA practice standard, *Authenticating Professional Work Products*.
  - vi. Meetings and correspondence where the Registrant provides recommendations or advice must be directly supervised by the Supervisor.
  - vii. The Registrant shall not manage or supervise other professional registrants or Members-In-Training.
  - viii. All costs related to the supervision and required reporting shall be at the expense of the Registrant.
  - ix. The registered Professional Engineer as specified in clause 28(C)(i) must be deemed acceptable to act as the Supervisor by the Director, Enforcement.
  - x. The Registrant shall submit in writing to the Director, Enforcement the names, qualifications, position title, and contact information of up to three registered -Professional Engineers willing to provide the required direct supervision and control as defined in clause 28 (C) (i). The Director, Enforcement, will decide on the final selection of the Supervisor(s).
  - xi. The Supervisor shall enter an undertaking with APEGA to provide the required direct supervision, control, and reporting. This undertaking will comprise a form provided by APEGA.
  - xii. The Supervisor shall provide a report each quarter respecting all projects undertaken by the Registrant in that quarter, for a period of [insert appropriate time frame, e.g., one year], to the Director, Enforcement.
    - a. Reports shall include for each project a summary or the project, a description of the Registrant's role and responsibilities on the project, a list of all PWPs related

to the project where the Registrant was the primary contributor, and the supervisor's assessment of the Registrant's work on the project.

- b. Reports shall be deemed to be a Professional Work Product, requiring authentication.
- xiii. At the conclusion of the two (2) years of supervised practice, the supervisor shall provide a written summary assessment in a format provided by APEGA and attest to the Registrant's competency in wood or temporary shoring structures in writing to the Director, Enforcement. If, on review of the supervisor's written assessment, the Practice Review Board deems that the Registrant's competency remains unsatisfactory, the Registrant shall be indefinitely restricted from practising of structural engineering as it relates to wood or temporary shoring structures until they can demonstrate competency to APEGA. This indefinite restricted status shall be reflected in APEGA's Member Directory.
- 29. This practice restriction shall be noted in APEGA's public member directory.
- 30. The Registrant shall provide written confirmation to the Director, Enforcement, within six (6) months of being notified that the Recommended Order has been approved by the Discipline Committee Case Manager, that he has reviewed the following APEGA publications, and that the Registrant will comply with the requirements therein:
  - a. APEGA *Authenticating Professional Work Products*, Professional Practice Standard, January 2022.
  - b. APEGA *Professional Practice Management Plan*, Professional Practice Standard, November 2022.
- 31. The Registrant shall provide written confirmation to the Director, Enforcement that he has completed the following educational sessions within twelve (12) months of the date this order has been approved by the Discipline Committee's Case Manager:
  - a. Proof of attendance (in-person or virtual) that he has attended an APEGA Permit to Practice seminar.
  - b. The APEGA 'Ethical Practice Self-Directed Learning Module' (available on myAPEGA).
- 32. If the Registrant fails to provide the Director, Enforcement with proof that he has completed the requirements noted above in Paragraphs 30 (a) and (b) and 31 (a) and (b); within the timelines specified, the Registrant shall be *suspended* from the practice of engineering until the requirements are met.
- 33. If the requirements with respect to Paragraph 32 are not completed within six (6) months of the suspension date, the Registrant shall be *cancelled*.
- 34. In the event the Registrant is cancelled he will be bound by APEGA's reinstatement policy.
- 35. If there are extenuating circumstances, the Registrant may apply to the Director, Enforcement, for an extension prior to the noted deadlines. If such an application is made, the Registrant shall provide the Director, Enforcement, the reason for the request, a proposal to vary the schedule, and any other documentation requested by the Director, Enforcement.
- 36. This matter and its outcome will be published by APEGA as deemed appropriate and such publication will name the Registrant.

I, Mr. Mike Seminatore, P.Eng. acknowledge that before signing this Recommended Discipline Order, I consulted with legal counsel regarding my rights or that I am aware of my right to consult legal counsel and that I hereby expressly waive my right to do so. I confirm that I agree to the facts and admissions as set out above in this Recommended Discipline Order, and that I agree with the Orders that are jointly proposed.

Further to the above, I acknowledge that I have reviewed APEGA's "Good Standing Policy". I understand that I will not be considered a member "in good standing" until I have fully complied with the Orders set out above, and I understand that good standing status may affect membership rights or benefits, or the ability to volunteer with APEGA in any capacity.

IN WITNESS WHEREOF the undersigned agrees with the Agreed Statement of Facts and Acknowledgment of Unprofessional Conduct in its entirety.

Mike Seminatore, P.Eng. Signed with ConsignO Cloud (2023/09/25) Verify with verific.com or Adobe Reader.		
Mr. Mike Seminatore, P.Eng.		
Signed with ConsignO Cloud (2023/09/21) Verify with verific.com or Adobe Reader.		
Mr. Kevin Willis, P.Eng. Panel Chair APEGA Investigative Committee		

# **APEGA Discipline Committee Approval**

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Tom Greenwood-Madsen Signed with ConsignO Cloud (2023/10/13) Verify with verifio.com or Adobe Reader.	notari	ius

Case Manager