

ENGINEERS GEOSCIENTISTS MANITOBA

IN THE MATTER OF:

Yuqin Shan, P. Eng., a Professional Engineer in
the Province of Manitoba

AND IN THE MATTER OF:

*The Engineering and Geoscientific Professions
Act, C.C.S.M. c. E120*

CHARGE

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WINNIPEG, MANITOBA
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CHARGE

The Investigation Committee of the Association of Professional Engineers and Geoscientists of the Province of Manitoba formulates the following charge.

Yuqin Shan, P. Eng., while registered as a professional engineer in the Province of Manitoba, displayed conduct which constitutes professional misconduct or unskilled practice in that:

In the course of providing engineering services respecting the design of the hopper portion of sand storage silos supplied to the Source Energy Services Canada facility near Fox Creek, Alberta, Mr. Shan displayed a lack of knowledge of or lack of skill or judgment in the practice of professional engineering and a violation of Canon 2 of the EGM *Code of Ethics* (adopted October 18, 2018) (the "**Code**"), contrary to ss. 46(1)(d) and (e) of *The Engineering and Geoscientific Professions Act*.

Particulars

1. In the period from October 2018 to May 2019, Mr. Shan provided engineering services respecting the designs of the hopper portion of two silos (the "**Bins**") to be supplied to the Source Energy Services Canada facility located near Fox Creek, Alberta (the "**Facility**").
2. Mr. Shan was not licenced as a member of Association of Professional Engineers and Geoscientists of Alberta (**APEGA**) and did not obtain a permit to practice engineering from APEGA when he provided the engineering services in respect of the design of the Bins.
3. Commissioning of the Bins at the Facility began on April 25, 2019. On May 3, 2019, workers at the Facility observed bulging of the Bins' hopper sheets, above the inner ring. In response to requests from the contractor and Source Energy Services Canada to address the bulging of the Bins, Mr. Shan stated that the bulging was expected.
4. On May 7, 2019, a welder and millwright at the Facility were tasked with confirming the operation of the slide gate and conveyor. In the course of this work, the structure of one of the Bins ("**Bin No. 2**") began to collapse. The welder and millwright, who were underneath Bin No. 2, were killed.

5. In the course of providing engineering services respecting the hopper portions of the Bins, Mr. Shan demonstrated a lack of knowledge, skill and/or judgment in the practice of professional engineering, by:

- a) Failing to recognize the complexity of the design of the Bins, which had inner support rings;
- b) Failing to use design tools appropriate to the complex nature of the hopper portions of the Bins;
- c) Designing the hopper portion of the Bins such that they were not capable of supporting the sand loads to which they were subjected;
- d) Failing to properly assess and respond to structural concerns about the bulging of the Bins raised by personnel at the Facility;

2. Violated Canon 2 of the Code by:

- a) Failing to familiarize himself with the licensure requirements in the Province of Alberta; and
- b) Undertaking the practice of engineering in the Province of Alberta without obtaining a permit to practice or an individual licence with the Association of Professional Engineers and Geoscientists of Alberta.

DATED at Winnipeg, Manitoba, this ____ day of _____, 2024.

John Doering, P. Eng, FCSE, FEC, FCAE
Chair, Investigation Committee