

Engineering?

The value proposition



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Agenda



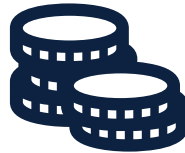
Introductions



Engineering –
What and
Who



Who is
APEGS?



Value of
Engineering



Case Studies



Tips and
Resources for
RMs



Questions

Introductions



Stormy Holmes, P.Eng.

- Executive Director & Registrar, APEGS
- 25 years of experience
- Experience in consulting engineering, public sector, and private sector



Chris Wimmer, P.Eng.

- Director of Professional Standards, APEGS
- 30 years of experience
- Experience in public sector, and private sectors



What is Engineering and Its Value?

Regulating the professions. Protecting the public.



A P E G S

*Association of Professional Engineers
& Geoscientists of Saskatchewan*

Engineering

- Planning, designing, composing, etc.
- Application of engineering principles
- Safeguarding of life, health, property, economic interests, the public interest or the environment.



Engineering Design



1. Define problem



2. Identify design requirements and limitations



3. Brainstorm, evaluate, choose



4. Build a model or prototype



5. Test solution



6. Refine the design



7. Communicate results

Professional Engineers



Academics are reviewed and approved



Attainment of competencies is verified

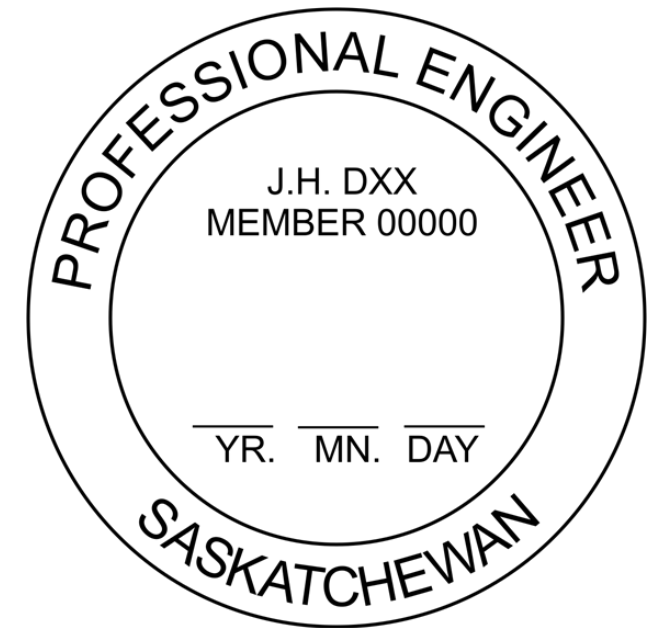


Held to Code of Ethics

Regulated Profession

All registrants:

- Demonstrate competence and professionalism
- Comply with Act and bylaws
- Subject to investigation and discipline



Only those holding a licence have the right to practice and call themselves an engineer – it's the law.

Why Use Engineers

Legal Requirement

- Statutes may require
- Codes and standard requirement

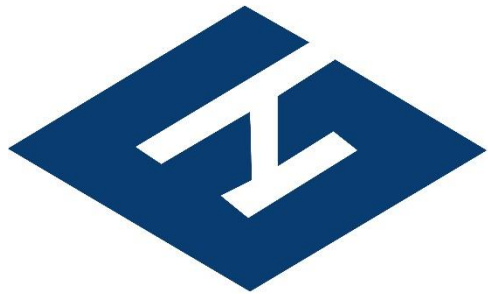
Competitive advantage

- Highest quality products and services
- Assurance of P.Eng. designation

Reduce risk and avoid costly mistakes

- High standard of excellence
- Accountability
- Liability coverage

What is APEGS?



A P E G S

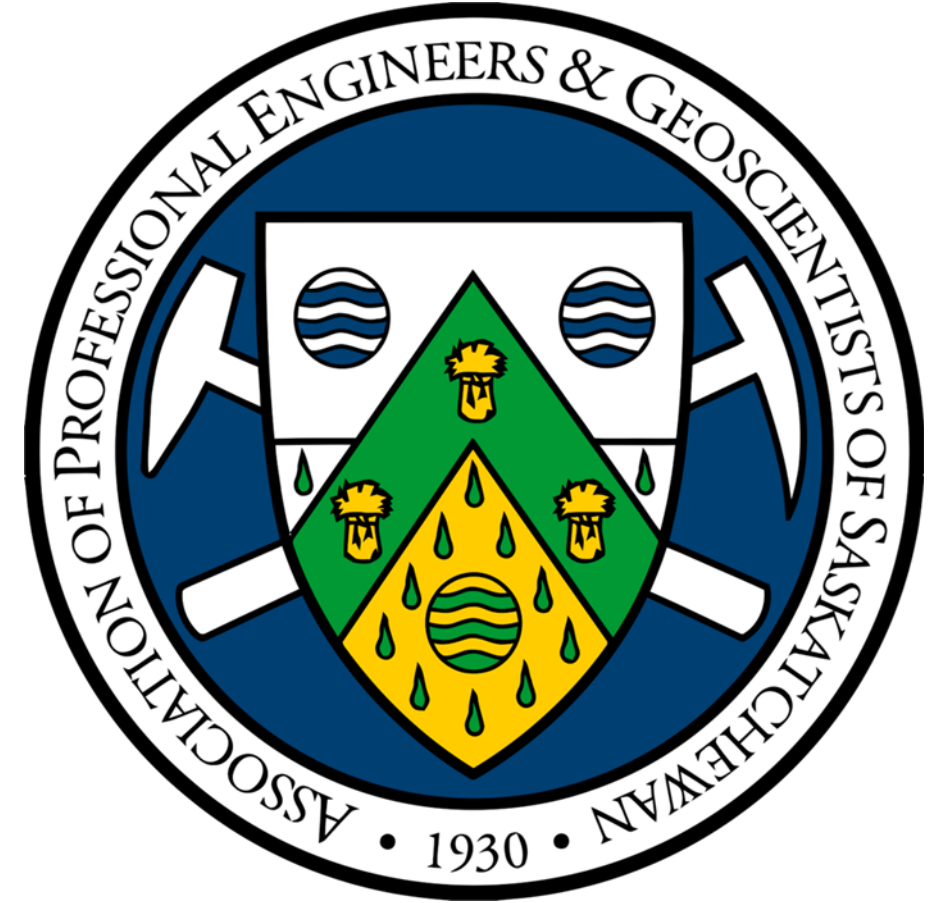
*Association of Professional Engineers
& Geoscientists of Saskatchewan*

Regulating the professions. Protecting the public.

APEGS

Regulator of professional engineering and professional geoscience in Saskatchewan

- Promote, improve, and ensure proficiency and competency of members
- Ensure the public interest is held paramount



Complaints, Investigation, and Discipline

Fundamental to professional regulatory process



Typically receive 5 – 10 complaints annually



1 – 2 discipline hearings annually

Case Studies, Tips, Resources

Regulating the professions. Protecting the public.



Case Study 1 – Structural Failure

Roof Truss Failures

- Roof structures with large open spans.
- Known failures a result of inadequate bracing of the roof trusses.
- Owners generally acted as the general contractor.
- No professional engineering involvement to ensure proper bracing.
- Building codes not properly enforced.



CBC News

Case Study 2 – Environmental Failure



Lagoon Breach

- Issue with sewage not being retained in lagoon
- Contractor hired, determined not to be sanitary lines
- Works on lagoon conducted without permit, no professional engineering of design or during construction
- Difficult to determine effectiveness of clay liner, may need to remove liner, and start over again

Case Study 3 – Professional Misrepresentation

The Phony Engineer

- Company established to offer engineering services without qualified professionals.
- Misrepresentation of qualifications and engineering services available to clients.
- Undertook projects and collected fees but completed work unsatisfactorily.
- Engagement to conduct engineering foundation work resulted in the house collapsing into the excavation.
- APEGS successfully prosecuted and issued Public Safety Notices, however the damage was done.



Case Study 4 – Engineering Failure



Water Treatment Plant

- Engineer misinformed regulator and RM on permits, construction, and costs.
- Did not report upset conditions.
- Improper disinfection.
- Precautionary drinking water advisories.
- Discipline resulted in licence suspension, additional training requirements, and fines.

RM Actions

Connect with Regulators

- Confirm credentials, licensure and scope
- File complaints

Evaluate Proposals

- Research reputation, review project outcomes, seek references
- Understand liability coverage
- Recognize value, evaluate the lifecycle costs and benefit.

Enforce

- Bylaws, inspections, compliance with codes and standards

Resources

APEGS Related

- [Register of Engineers and Geoscientists](#)
- [Complaints Process](#)
- [Discipline Decisions and Orders](#)

General

- [Federation of Canadian Municipalities Infraguide](#)

Questions & Thank You . . .

. . . for more information, contact:

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