A P E G S

Association of Professional Engineers & Geoscientists of Saskatchewan

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PROFESSIONAL PRACTICE BULLETIN

Helical (Screw) Pile Engineering and Scope of Practice

Helical (screw) pile foundations are high-risk, engineered systems requiring specialized knowledge. Practising outside your area of competence can create serious public safety risks and professional liability.

Why This Matters

- Helical piles support structural loads; incorrect calculations or insufficient oversight can compromise safety.
- Regulators across Canada have seen increasing incidents of improper design and installation of these systems.

Case in Point

Recent APEGS discipline decisions illustrate recurring risks associated with helical pile and foundation system work. Two recent cases went through the discipline process with APEGS.

The discipline committee:

- found professional misconduct and incompetence related to the foundation and helical pile design. In one case, failures in engineering judgement and oversight were also found.
- identified that the foundation and, in particular, the helical piles did not meet the requirements of the National Building Code.
- determined that work required appropriate geotechnical competence and documented guidance from a qualified geotechnical engineer
- cited improper oversight of construction and inspection of the installation of the helical piles.

Both cases resulted in fines and practice restrictions for the members. In addition, mandatory professional development was required, and the decisions were published with names.

Legislative Requirements

In both cases, the professionals were operating outside their area of competence. APEGS reminds all professionals of the requirements in Regulatory Bylaw Section 20, Code of Ethics. In particular, clause 20(2)(b) which states:

> *Without restricting the generality of subsection (1), members and licensees shall:*
>
> (b) *offer services, advise on or undertake professional assignments only in areas of* ***their competence*** *and practise in a careful and diligent manner*.

Registrants Responsibilities

- ✓ Practise only within areas of demonstrated competence
- ✓ Ensure designs are finalized, accurate, and code-compliant
- ✓ Clearly retain responsibility for design
- ✓ Ensure work receives appropriate review and inspection
- ✓ Maintain full professional accountability for decisions affecting public safety

Possible Disciplinary Consequences

- Licence suspension or restrictions
- Significant fines
- Mandatory supervision or training
- Public publication of decisions

Protecting Public Safety

Foundation systems, including helical piles, must be designed and reviewed by engineers with geotechnical and structural expertise.

Source: APEGS Discipline Committee Decisions (2023–2024)