

THE ENGINEERING PROFESSION'S POSITION

- The engineering profession believes that it is in the public interest that all infrastructure designed or built for use in Canada—which includes its offshore areas—must be regulated by the provincial or territorial regulator in the jurisdiction in which the equipment is being used.
- Where engineering facilities are being used or engineering activities are occurring outside of provincial or territorial jurisdiction but under federal government jurisdiction, it is in the public interest that federal government regulations provide the same level of public assurance as when activities occur within provincial or territorial jurisdictions.
- There are complex regulatory structures that manage oil and gas operations in Canada's offshore areas; however, these federal regulatory instruments do not regulate engineering practitioners. Incorporating the requirement for such engineering practitioners to be licensed by the provincial and territorial engineering regulators would ensure the same level of public protection for engineering practice done offshore as is done on land.
- It is in the public interest that there be better regulation from the federal government for engineering activities that are performed outside of Canada's provincial or territorial governments' jurisdiction, but within federal government control.

The challenge(s)

Engineers from all disciplines are integral to the exploration, discovery, testing, extraction, and distribution of offshore oil and gas. Engineering in Canada is a regulated profession, and engineers are licensed professionals, holding a license to practise engineering with one of Canada's 12 provincial or territorial engineering regulators. The self-regulation of the engineering profession in Canada ensures that engineers are held to high professional and ethical standards, and that they practise in the public interest. It is imperative to have strengthened regulatory mechanisms to manage operations in Canada's offshore areas for activities performed outside of Canada's provincial and territorial government's jurisdiction that are within the federal governments control.

With the overwhelming scientific evidence that the world's climate is changing, the practice of offshore engineering work is expected to expand into locations previously inaccessible to such activities, such as the Arctic Ocean. The practice of offshore engineering is likely to increase to Atlantic and Pacific Canada. The United Nations Convention on the Law of the Sea (UNCLOS) is the international agreement that defines the rights and responsibilities of nations with respect to their use of the world's oceans. UNCLOS establishes guidelines to protect the natural environment, as well as providing guidelines for businesses around the management of marine natural resources. Article 81 of UNCLOS delineates that the coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes¹.

Federally, Canada has a set of four principal Acts that govern oil and gas activities offshore, in addition to the previous National Energy Board (NEB), which regulates the frontier lands and offshore areas not covered by provincial or federal management agreements. NEB responsibilities included the regulation of oil and gas explorations, development and production, enhancing worker safety, and protecting the natural environment. The Government of Canada is proposing to create the Canadian Energy Regulator (CER), a new, modern, and world-class federal energy regulator with the required independence and the proper accountability to oversee a strong, safe, and sustainable Canadian energy sector in the 21st century.

These are complex regulatory structures that manage offshore oil and gas operations in Canada's offshore areas; however, these international and federal regulatory instruments do not provide for the regulation of engineering work that is done offshore, as the provincial and territorial engineering Acts do for engineering work conducted on land. Currently, infrastructure to be used offshore that is designed and built outside of Canadian limits is not subject to Canadian engineering regulation. Yet, infrastructure built or designed in Canada are subject to provincial engineering jurisdiction.

There must be better regulation from the federal government for activities that are performed offshore including outside of Canada's 12-mile territorial limit (i.e. in international waters). However, the provincial and territorial engineering regulators believe that it is in the public interest that all infrastructure designed, built, or used within Canada—including in its offshore areas—must

be regulated in a manner similar to that which is currently done by the provincial or territorial engineering regulators for engineering work done on land. Regulation minimizes the risks to workers and the environment and ensures that these activities are conducted by engineers who are held to high professional and ethical standards that require them to work in the public interest.

What the provincial and territorial regulators have done

Professional Engineers and Geoscientists Newfoundland & Labrador (PEGNL) published Practice Guidelines for Authenticating Professional Documents in June 2016, which included guidance on the authentication of offshore drilling documents. It outlines that professional documents prepared in Canada for use outside of the 12-mile Canadian territorial limit (i.e. in international waters), shall be authenticated by a professional licence holder licensed in the Canadian jurisdiction where the engineering or geosciences practice was carried out. For example, if a device is designed by an engineering group or firm in Newfoundland and Labrador for use in offshore oil development in international waters, then the design must be authenticated by a professional licence holder, and permit holder if applicable, using PEGNL stamps.

If the device is designed outside of the province for use in international waters but is brought to the province for assembly, for incorporation into another assembly, or for testing or commissioning, the documents detailing the assembly, incorporation, testing, or commissioning shall be authenticated by a PEGNL professional license holder, and permit holder if applicable, using PEGNL stamps.

PEGNL authentication is required when a device intended for use outside of the 12-mile Canadian territorial limit meets any one of the following conditions:

1. Designed in Newfoundland and Labrador
2. Built in Newfoundland and Labrador
3. Integrated into or installed in an assembly in Newfoundland and Labrador
4. Tested or commissioned in Newfoundland and Labrador

If the device intended for use in international waters does not meet any of these conditions, unfortunately no PEGNL authentication is required. There are significant engineering activities that do not meet these criteria and therefore are not subject to engineering regulation.

Recommendations to the federal government

Public safety is threatened, and environmental, social, and economic impacts are not adequately addressed when engineers are not directly involved in the design, review, implementation, and maintenance of projects that require the application of engineering practices. Where engineering work is being performed, it is in the public interest that a licensed engineer be involved. Legislation that speaks to engineering work, regardless of whether it is under federal or provincial jurisdiction, should require the involvement of qualified engineers. These engineers must be licensed through a provincial or territorial engineering regulator.

The federal government must continue to engage with engineering regulators as they consider better regulation for activities with engineering components performed outside of provincial jurisdiction but within federal control. Public interest is best served when such engineering matters are regulated to at least the standard to which they are regulated on land.

In all legislation impacting the offshore where engineering matters form a significant component, the federal government should include a requirement that engineers be licensed with a provincial or territorial coastal government who has direct interest in off-shore engineering work.

How Engineers Canada will contribute:

Engineers Canada will:

1. Actively identify opportunities to incorporate provincial and territorial regulations within offshore engineering legislation and regulations where such involvement would be in the public interest.
2. Work collaboratively with provincial and territorial regulators to promote the regulation of offshore engineering.
3. Identify opportunities to work with the federal government to inform regulation for activities performed outside of provincial jurisdiction but within federal control.

¹United Nations Convention on the Law of the Sea. Retrieved August 31, 2018, from: http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.