CANADA'S OIL & NATURAL GAS PRODUCERS

September 20, 2017

Letter sent electronically – original to follow via regular mail

Mr. Daniel Morin
FORRI Project Manager
Natural Resources Canada
580 Booth Street
Ottawa, ON K1A 0E4

Dear Mr. Morin:

Re: CAPP Phase 3 comments – Federal Offshore Regulatory Renewal Initiative Framework Regulations

Although discussed in Phase 1 and 2 submissions CAPP believes it is imperative to continue to discuss the following important aspects of the development of the Framework Regulations and the enduring need to ensure that the regulation and the regulatory processes that support the administration and implementation of these regulations provide the best possible system for the future regulation of the areas under their jurisdiction.

Performance Based Regulation

CAPP continues to advocate development of performance-based regulation, consistent with other international jurisdictions that achieve higher levels of environmental and safety performance and support a more competitive frontier and offshore sector.

The Framework Regulations are part of a network of tools to ensure safe operations offshore. The regulations should provide the framework in which the regulator, operator and certifying authority have clear roles in the development and application of guidance, codes, standards and codes of practice to ensure safe, environmentally sound operations in a context of continuous improvement. The Framework Regulation policy intent have satisfied certain elements of this thinking, with clearly defined duties for the operator, expectations for the operators management system and expectations for the certifying authority.

While CAPP recognizes that the governments have committed to a hybrid model of performance regulations when possible and prescriptive regulations where necessary, CAPP believes that Part 6 and Part 7 of the Phase 3 Policy intent are overly prescriptive and encroach significantly into the

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realm of codes and standards. With exception to the specific concerns in the detailed comments, compliance with the requirements of these Parts is not an immediate concern; however the level of detail within the regulation presents a significant risk of the regulations becoming quickly dated and overly focused on a subset of existing technology. This detail is better used in Codes, Standards and Codes of Practice that are more responsive to changing good practices. When used in the regulation itself, they become possible areas of conflict with the codes and standards as they change over time.

For example, Part 6.6 outlines expectations for the conduct of a fire, explosion and hazardous gas assessment, one that when properly completed would assess and inform the design and operation of a facility. However, the following section, 6.7 then requires that temporary refuges and boundaries of wellheads are protected by, although couched in performance language, an H120 rated wall. This requirement may be prudent on an FPSO or a single platform, but would provide limited benefit on a facility where the living quarters and temporary refuge are separated from the well head by a suitable distance and accessed by a bridge. Furthermore, passive fire protection is addressed in industry codes and standards and can also be addressed in guidance by the regulator if the regulator considers the existing codes and standards inadequate.

A result of the level of detail in Part 6 and 7 is also inconsistency in the language used regarding when the operator's duty to ensure safe operations has been met. Examples of this language include:

- *Operators take all reasonable precautions*
- *Reduce risk arising to … as low as reasonably practicable*
- *Suitable means*
- *Safe means of evacuation*
- *Sufficient passive fire and blast protection*
- *Maximum load and operating conditions that may be foreseeable*

An example from this list is the use of the term "maximum" in comparison to how design loads are developed in industry standards. The term "maximum" is imprecise when considering a time limited exposure to stochastic environmental loads and not consistent with ISO 19000 series guidance on developing design cases for offshore structures. This can result in incompatibility with these standards and the difficulty for regulators and operators to use state of the art design methods, which are typically stochastic in nature.

These two examples show that prescriptive regulation limits the regulator's and industry's capacity to adopt best practices, advance technology and be innovative when it comes to ensuring the

safety and wellbeing of personnel, environmental protection and responsible resource development.

Significant portions of Parts 6 and 7 remain highly prescriptive. CAPP believes most of these requirements can be addressed through existing design codes and standards, or, if necessary, as part of regulator guidance. While CAPP has provided detailed comments to Part 6 and 7 in the event the government opts to move forward with the existing language, it is preferable that these Parts are substantially rewritten and simplified to reflect the minimum acceptable major accident hazards that should be considered and the minimum expectations for their assessment in the preparation and implementation of the Safety, Environmental, Contingency and Certification Plans.

Board Powers and Interpretation of Regulations

As stated in Phase 1 and 2, reasonable and consistent application of Board powers is essential for ensuring public and stakeholder confidence in the regulatory process. Mechanisms for exchange / interface between the operators, regulators and certifying authorities must be understood to successfully adapt to and implement performance based regulations. The Phase 3 policy intent document introduced significant content pertaining to the Certifying Authority, Industry and Regulators that when devoid of a definitive process or protocol for collaboration will create a challenging and complex regime that is difficult and laborious to administer.

Regulators and Industry must have consistency of interpretation to build confidence in the Canadian regulatory system when deciding to conduct work in Canada. The Framework Regulations must facilitate a common approach to authorizations such that an offshore installation or other asset can experience an equal regulatory approach in any Board jurisdiction in Canada.

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ALARP

The performance based Framework Regulations must be supported with meaningful and objective criteria for determination of ALARP. The concept of ALARP means reducing risk to a level that is As Low As Reasonably Practicable. In practice, the operator has to demonstrate through rational and supported arguments that there are no other practicable options that could be reasonably adopted to further reduce risk. ALARP principles must also apply to environmental aspects, asset integrity, operations resource conservation where risk based principles are applied.

Industry believes there is an ominous (or obvious) need to establish a protocol for demonstrating ALARP to avoid inconsistent interpretation between industry, certifying authorities, regulators and individuals. CAPP recommend that industry, FORRI and the Boards commence proactive collaboration on the development of the principles and protocols necessary to ensure a consistent decision making process for the determination of as low as reasonably practicable

Guideline Development

CAPP recommends a strategy be developed for concurrent /parallel development of guidelines along with the Framework Regulation. Regulations are often interpreted differently by both operators and the boards thus the Framework regulations will be significantly undermined if guidelines are developed that are prescriptive and considered mandatory.

Guidance must be developed in consultation with industry to reduce potential for differing interpretation and ensure efficiency of implementation for operators and boards. Ensuring flexibility within guidance permits industry to take a responsive approach to choosing the best methods or equipment available, incorporate new technologies, techniques or work practices more rapidly to enhance safety, environmental protection and resource conservation.

Management System

CAPP agrees with the intent and purpose of the proposed changes to the Management System (MS) requirements intended to elevate the importance of safety and environmental performance. CAPP believe that Phase 3 policy intent has introduced significant and unnecessary prescription in regards to management system and recommend that the duplication and overlap in the following areas not be introduced to regulation (management systems, quality assurance program, asset integrity, operations manual, safety plan and environmental protection plan). If the objective is to modernize and move to a performance based regulatory regime, management system content must be focused and concise and not overly detailed and prescriptive.

Codes, Standards and Prescription

The FORRI must strive to make minimal references to codes and standards in the Framework Regulation. This approach will allow industry to propose standards for meeting the performance requirements of the Framework Regulation. CAPP believe that the Framework regulations should minimize the use of prescriptive codes and standards and permit the adoption of codes and standards that have been accepted by Flag states and Classification societies. This is particularly true for foreign flagged vessels and installations which were not designed or constructed to the Canadian or North American codes and standards that have been written in policy intent.

Flag states maintain a ship register in which all vessels and installations that operate under their flag need to be registered. Classification societies are licensed by flag states to survey and classify vessel and installation and issue certificates on their behalf. They classify and certify marine vessels and structures on the basis of their structure, design and safety standards.

A classification society's specialized and technical workforce comprises of ship surveyors, mechanical engineers, material engineers, piping engineers, and electrical engineers. Surveyors employed by a classification society inspect ships at all stages of their development and operations to make sure that their design, components, and machinery are developed and maintained in accordance with the standards set for their class. The process covers inspection of engines, shipboard pumps and other vital ship's machines. They also inspect offshore structures such as oil rigs, submarines and other marine structures.

Performance and Risk Based Maintenance and Inspection

The policy intent document outlines prescriptive requirements for equipment maintenance and inspection and frequently limits equipment inspections and maintenance to the requirements as prescribed by the equipment manufacturer.

Industry's maintenance and inspection approach for equipment is based on good oilfield practice which necessitate the inclusion of operations experience, safety and risk criteria as well original equipment manufacturer (OEM) specifications. Industry has advanced from simply adhering to strict prescriptive maintenance plans and has adopted the use of risk based principles for inspection and maintenance of all equipment and specifically safety critical equipment. For example, the use of risk based principles has been approved by regulators for their application to the inspection of pressure vessels. Operators ensure OEM requirements are considered in the development of operational procedures and inspection and maintenance plans.

Although it may seem reasonable to state in policy intent that inspections and maintenance must be in line with the OEM's instructions, it should be recognized that OEM's instructions are typically conservative. They also often apply to the use of tools by untrained personnel versus competent trades persons. Additionally, manufacturers requirements may not contemplate the jurisdictional requirements under which the equipment is operated thus these requirements may be influenced primarily by jurisdictional requirements where the equipment was manufactured.

Management systems are common practice in industry and form the basis for providing assurance that equipment is maintained, inspected and operated as intended. These systems are subject to audit and are assessed by regulators and other third parties such as Certifying Authorities or Classification Societies.

Specifying the frequency of inspection in policy text does not necessarily lead to a higher quality state for equipment and facilities. CAPP proposes that policy intent state the desired outcome that stems from sound maintenance and inspection philosophy. Thus the frequency of the inspection and maintenance campaigns may be adjusted accordingly to meet the desired outcome. As such, the prescriptive requirement to inspect facilities and equipment "annually, or more frequently..." is not considered good oilfield practice.

CAPP's attached detailed comments and previous submissions identify those sections of the document in which consideration of performance based policy text pertaining to equipment maintenance and inspection should be incorporated into regulation.

If you have any questions regarding this submission please let me know. We look forward to continued engagement with FORRI as you develop the Framework Regulations.

Sincerely,

R. Paul Barnes
Director, Atlantic Canada and Arctic

cc. Fred Allen, FORRI Co-Chair, NL Department of Natural Resources
Kim Himmelman, FORRI Co-Chair, Nova Scotia Department of Energy

Attachment