CANADA'S OIL & NATURAL GAS PRODUCERS

July 18, 2022 *sent to: cheryl.mcneil@NRCan-RNCan.gc.ca*

Cheryl McNeil
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Natural Resources Canada
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Dear Ms. McNeil:

Re: CAPP Comments on the Canada Gazette I version of the Frontier and Offshore Regulatory Renewal Initiative (FORRI) Framework Regulations

The Canadian Association of Petroleum Producers (CAPP) is pleased to provide comments on the draft Frontier and Offshore Regulatory Renewal Initiative (FORRI) Framework Regulations published in *Canada Gazette I* on June 18th, 2022, for consultation.

CAPP members are committed to the safe and responsible exploration, development, and production of Canada's petroleum resources and are pleased that the federal government is implementing a hybrid approach to regulation via the Framework Regulations. A regulatory framework that is adaptive and allows for new technologies to be considered and implemented while recognizing international codes and standards will be a critical element in lowering emissions and achieving operational efficiencies for Canada's oil and gas industry.

The Framework Regulations are critical to providing the framework in which the regulator, operator, and certifying authority have clear roles and responsibilities to ensure safe, environmentally sound operations in a context of continuous improvement. The Framework Regulations 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.

Our comments, provided in this letter and in the attached table, are founded upon our members' collective offshore operating experience in Canada and around the world. The comments provided in the attached table are listed as comments that require clarification or are considered high-priority items and have a direct impact on offshore operations. The high-priority comments are highlighted in the table for reference.

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Since 2016, there have been several opportunities for stakeholders to provide feedback on the draft policy intent and this process has provided an opportunity to address several high-priority areas identified by operators. The following sections are residual items that we feel require further consideration prior to finalizing the regulation.

Sections 82-84 - Venting and flaring

One area of concern that we wish to draw your attention to is sections 82-84 of the Framework Regulations pertaining to venting and flaring. These sections as currently written do not reflect the intent of the federal methane regulation and in particular, Part B which is specific to offshore oil and gas. To mitigate this concern, CAPP recommends either including the definition of "venting" from the federal methane regulation in the Framework Regulations or removing the sections pertaining to venting and flaring and refer to the requirements in Part B of the federal methane regulation. Without the definition of "venting" incorporated in the Framework Regulations, the intent of the federal methane regulation is missing causing confusion, overlap, and potentially two sets of different requirements. Given that the federal methane regulation is already in force our preference is to eliminate any confusion and additional comments on these sections are included in the attached table.

Part 8 - Installations, Wells, Pipelines, and Vessels

CAPP recognizes that the governments have committed to a hybrid model of performance regulations when possible and prescriptive regulations where necessary. However, CAPP believes that Part 8 remains prescriptive and, while compliance with the requirements of this Part is not an immediate concern, 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 8 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, 111 (9) requires that certain facilities are protected by an H120-rated division, although couched in performance language. 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.

Part 9 Support Operations

The quantified impacts of the proposed Regulations in *Canada Gazette I,* June 18th, 2022, edition "states that the result in a net present benefit of $6.15 million between 2023 and 2032 (discounted to 2022 using a rate of 7%). The total present value of the quantified benefits would be $6.95

million, while the total present value of costs would be $0.81 million." This analysis must consider the requirement for a fixed fire suppression system which is cost prohibitive for several vessels during the contracting process, to the degree that the preferred, modern vessels, from a technical and safety perspective, were disqualified because the time and cost to add a sprinkler system was prohibitive (months and millions of dollars).

In addition, vessel owners often have several vessels capable of performing the scope and can swap vessels as the installation date nears. Again, with a limited number of vessels providing this service, most of which do not have sprinklers systems in their accommodations, the ability to choose the preferred vessel or vendor is limited. This clause now forces the industry use older vessels with fixed sprinkler systems because modern vessels have alternate measures for fire prevention and protection. Operators should be able to demonstrate alternate means of compliance in a performance-based regulatory environment.

ALARP

CAPP believes there is a need to establish a risk management protocol for demonstrating ALARP to avoid inconsistent interpretation between industry, certifying authorities, regulators, and individuals. CAPP via the Regulatory Strategy Committee (RSC) will work with the Boards to commence proactive discussions and protocols necessary to ensure a consistent decision-making process for the determination of "as low as reasonably practicable".

Annual Production Report

The provision of historical and forecast variable and fixed costs, as well as commodity prices and pipeline and transportation commitments, is a new requirement, not previously included in the Drilling and Production (D&P) Regulations. The D&P Guidelines currently include expectations on the provision of cost data that are not included in the D&P Regulations and is over-and-above the regulatory requirement.

As previously stated, the rationale for providing a breakdown between variable and fixed costs is not clear and since the variable cost component is usually small when compared to fixed costs, the value of providing this data remains questionable.

Also, the provision for commodity price forecasts and historical prices, as well as transportation commitments, raise several concerns including:

- commodity price forecasts are confidential to individual companies and not shared between companies due to competition law requirements.
- reports (such as an Annual Production Report (APR)) prepared by the operator are the property of the joint interest holders and are therefore accessible to the joint interest

holders; if forecast commodity prices were included in inherent data included in the APR, then the joint interest holders would have access to data that is inconsistent with competition law.
    - historic commodity realizations are included in royalty reports filed by the individual interest holders with the government and this data is not shared with the operator, once again in accordance with competition law requirements.
    - the benefit or usefulness of providing a commodity forecast as part of an annual regulatory report is not apparent; for example, as evident during the current global pandemic, a commodity price forecast and actual realizations can change quickly and can be influenced by many factors.
- Commodity price forecasts are available from third-party services and if the data is required by the regulator to carry out their mandate, CAPP encourages the use of one of these services as opposed to the operator providing this data; to ensure the regulator has consistent data it is recommended that the regulator subscribe to a single, reputable service, if necessary the cost of this subscription service could be recovered through the cost recovery regulations process.
- If the regulator believes this level of cost data is needed to evaluate the decision-making process with respect to investment and operating decisions, CAPP wishes to point out that these decisions are usually taken within the framework of the operating agreement(s) among the joint interest holders; each individual interest holder will have different economic models to support their decision; the operating agreements generally govern the joint decision and while economics may be favorable for one (or more owners) the group consensus may differ.

As the review of the Framework Regulations concludes, I would like to recognize that many of our comments submitted over the last six years have been addressed in previous CAPP submissions. With a moderate number of priority comments remaining, we hope to resolve these items with you during this consultation period.

If you have any questions regarding this submission, please let me know. We look forward to continued engagement with NRCan and the Boards as you finalize the Framework Regulations.

Sincerely,

R. Paul Barnes
Director, Atlantic Canada and Arctic

Attachment

2022 Canada–Newfoundland and Labrador Offshore Area Petroleum Operations Framework Regulations	CAPP Comment
6. Human resources (1) An operator must ensure that an organizational structure is put into place within which there are sufficient human resources to implement and continually improve the management system. Accountable person (2) The operator must designate an employee as accountable person for the management system and ensure they have the necessary authority over the human and financial resources that are required to implement and continually improve the system. Name, position and contact information (3) The operator must ensure that the name, position and contact information of the accountable person is submitted to the Board at the time the application for authorization is made and when a new designation is made under subsection (2) or each time any change is made to the name, position or contact information of the accountable person. Signed statement (4) The operator must ensure that the accountable person submits to the Board, within 30 days after the day on which they are designated, a signed statement accepting the responsibilities of their position as accountable person.	CAPP clarification request: What does the signed statement 6 (4) do that is not already covered in the declaration of fitness? Clarification required. Board process vs legislative requirement?
PART 2: Authorization	
Application	
Uncontrolled well 12.(3) In the case of a drilling program or a production project, the contingency plan must also include a description of the source control and containment measures to stop the flow from an uncontrolled well and to minimize the duration of a spill and its environmental effects, as well as the following documents and information: (a) a description of the source control and containment equipment to be used in the event of a loss of well control; (b) details of contractual arrangements for the source control and containment equipment, including (i) the name and contact information of the owner or owners of the equipment, (ii) the arrangements for transport of the equipment to the location of the uncontrolled well, and (iii) the arrangements for the mode of deployment of the equipment at the location of the uncontrolled well; (c) the schedule and plan for the mobilization, deployment and operation of source control and containment equipment, including measures to minimize deployment time that take required regulatory approvals into consideration; (d) details regarding the accessibility to the source control and containment equipment and the documents and information referred to in paragraphs (a) to (c); (e) an explanation of the adequacy of each of the source control and containment measures; and (f) a description of any support systems and equipment, including vessels, remotely operated vehicles and consumables, such as, in the case of a relief well, a spare wellhead, casing and bulk additives.	CAPP clarification request: 12(3): Our concern is around contractual arrangements, schedule, and mobilization plan for a relief well drilling rig. Our interpretation of this section is an operator must have some type of contractual arrangement with the second rig in place, which is not reasonable. This is based on the definition of Source Control Equipment in 12(7). These are specific requirements that may increase financial obligations; CAPP requests clarification on the language in s 12 (3). CAPP recommendation: 12 3(b) details of procurement arrangements for the source control equipment, including:
Spill-treating agent 12.(4) If a spill-treating agent is being considered for use as a spill response measure, the contingency plan must include the following additional documents and information: (a) the name of the chosen spill-treating agent and an assessment of its efficacy in treating the potential sources of pollutants, including the results of any tests conducted for the assessment and a description of those tests; (b) the results of an analysis that demonstrates that a net environmental benefit is likely to be achieved through the use of the spill-treating agent under certain circumstances; (c) a description of the circumstances under which the spill-treating agent will be used and the estimated period within which the use of that spill-treating agent will be effective; (d) a description of the methods and protocols, including the amount and application rate, for safe, effective and efficient use of the spill-treating agent; (e) the international standard or alternative recognized by the Board on which the spill-treating agent assessment, analysis and the methods and protocols referred to in paragraphs (a) and (b) are based, taking the local environment into account; (f) a list of the personnel, equipment and materials that an operator will have available for the use of the spill-treating agent in spill response operations and the details of any contractual arrangements for that personnel and equipment and those materials; and (g) a monitoring plan for the use of the spill-treating agent.	CAPP recommendation: 12(4)(f)Personnel change out, CAPP recommends that the regulation state a list of roles that the operator will use in the event of a spill. CAPP also suggests, that information for contract activation be included but specific contract details are not included within the plan.

Assessment of efficacy 12.(5) The assessment of efficacy under paragraph (4)(a) must be carried out using oil obtained directly from an operations site or, if oil is not available from that operations site, using an oil that most closely resembles the oil expected to be obtained from the operations site and the assessment of efficacy must be repeated when oil becomes available from the operations site. Methods and protocols (6) The methods and protocols referred to in paragraph (4)(d) and the monitoring plan referred to in paragraph (4)(g) must conform to industry standards and best practices for spill-treating agent use, taking the local environment into account. Definition of source control and containment equipment (7) In this section, source control and containment equipment means the capping stack, containment dome, relief well drilling rig and any subsea and surface equipment, devices or vessels that are used to contain and control a spill source and minimize the duration of a spill and its environmental effects until well control has been regained.	CAPP clarification request: In section 12(7), the inclusion of the "relief well drilling rig" is concerning, depending on the Board's interpretation. Is the intent of this section to have contractual terms with a second rig for a drilling campaign as mentioned above in comment 12(3)? Any reference to contractual arrangements is a concern for industry but providing details of arrangements is fine.
15. Flow system, calculation and allocation (1) If the application for an authorization is in respect of a production project, the operator must submit to the Board for its approval the flow system, the flow calculation procedure and the flow allocation procedure that will be used to conduct the measurements referred to in sections 74 to 78. Board approval (2) The Board must approve the flow system, the flow calculation procedure and the flow allocation procedure if the applicant demonstrates that the system and procedures facilitate accurate measurements and allocate, on a pool or zone basis, the production from and injection into individual wells.	CAPP clarification request:15(2): We have multiple sands flowing into a single wellbore. We would allocate by well but would be unable to break down production by sand contribution. CAPP suggests clarifying flow calculation requirements.
16. Decommissioning and abandonment plan (1) An operator must, in the case of a drilling program or production project, develop a decommissioning and abandonment plan that includes the following documents and information: (a) a description of the safety and environmental protection measures to be implemented during decommissioning and abandonment to comply with the requirements of these Regulations, the provisions of Part III of the Act and any federal or provincial legislation or international conventions or agreements relating to safety and the protection of the environment; (b) a description of the potential effects of the decommissioning and abandonment on the environment and on any other uses of the site; (c) the methods for restoration of the site after the decommissioning and abandonment; and (d) the forecasted costs of decommissioning and abandonment and the manner in which the operator will finance or pay for those costs. Costs and financing or payment (2) The operator must submit to the Board any update on the forecasted costs of decommissioning and abandonment and the manner in which the operator will finance or pay for the costs of decommissioning and abandonment, but, beginning not later than five years before the day on which the decommissioning and abandonment is forecasted to begin, the operator must submit to the Board annual updates of the forecasted costs and the manner in which the operator will finance or pay for those costs.	CAPP clarification request; The request for a 'plan' rather than a 'description' suggests a more comprehensive document will be required. There is often 25+ years between OA-P submission and abandonment and during that time there will be significant regulatory, environmental and technological evolution that will impact abandonment plans. Confirmation is sought that any abandonment plan submitted will allow for it to be subject to change and updated with more definite details as the end of field life nears? For the first OA please clarify what level of detail is required.

Well Approvals 17. Well operation (1) Subject to subsection (2), an operator that intends to conduct a well operation must obtain a well approval. Approval not necessary (2) A well approval is not necessary to conduct a wire line, slick line, coiled tubing or similar operation through a tree located above sea level if the following conditions are met: (a) the operation does not alter the completion interval or is not expected to adversely affect the recovery of petroleum; and (b) the equipment, operating procedures and qualifications of the persons carrying out the work are in compliance with the requirements of the authorization. Approval application contents (3) The application for a well approval must include the estimated cost breakdown of the well operation and the following information: (a) if the well approval sought is to drill a well, (i) a comprehensive description of the drilling program, a geoscientific description of the potential production area and a description of any geohazard, (ii) the digital data necessary to allow for an independent geohazard assessment, (iii) a description of the well data acquisition program referred to in section 18, and (iv) a description of the well verification scheme referred to in section 19; (b) if the well approval sought is to perform a workover on, re-enter, complete or recomplete a well or suspend or abandon a well or a part of it, a description of that well or that part of it, the proposed work or activity and the rationale for carrying it out, including barrier envelope diagrams to demonstrate two barrier envelopes throughout the operation; (c) if the well approval sought is to complete a well, in addition to the requirements under paragraph (b), information that demonstrates that section 71 will be complied with; (d) if the well approval sought is to suspend a well or a part of it, in addition to the requirements under paragraph (b), an indication of the period within which the suspended well or part of it will be abandoned or completed; and (e) if the well approval sought is to suspend or abandon a well or a part of it, in addition to the requirements under paragraph (b) and, in the case of suspension, paragraph (d), the methods for verifying the isolation of zones required by paragraph 88(1)(a). Well approval granted by the Board (4) The Board must grant the well approval if the operator demonstrates that the well operation will be conducted safely, without waste or pollution and in compliance with these Regulations. Definitions (5) The following definitions apply in this section. slick line means a single steel cable that is used to run tools in a well. (câble lisse) wire line means a line that contains a conductor wire and that is used to run survey instruments or other tools in a well. (câble)	CAPP recommends reverting back to pre-CG1 wording for 17 (2) and removing "through a tree located above sea level". 17 (2) Well approval is not necessary if certain conditions are met, however, " through a tree located above sea level" has been added from the pre-CG1 version. This addition limits operational flexibility on subsea wells and at a minimum, it would be good to understand why well approval is not necessary with certain conditions that do not apply to offshore subsea wells, but rather only to platform wells (ie. " through a tree located above sea level") 17 (3) now requires that estimated cost breakdown be included in the well approval application. Please confirm that the cost break down estimate is also subject to the Board's approval. This information is already provided in the well record. Suggest deleting 17(3).
19. Well verification scheme (1) An operator must establish a well verification scheme based on criteria that it establishes to ensure that the design of any well is in accordance with industry standards and best practices to ensure its integrity throughout its life cycle. Well ranking (2) For the purposes of subsection (1), the operator must rank a well according to its level of risk and ensure that the well ranking is confirmed by an independent person. Verification requirements (3) The verification scheme must set out the verification requirements that are applicable to the design of a well according to its ranking and to any changes made to the design during its construction or operation that would affect any previously undertaken verification. Additional verification requirements (4) The operator must ensure that the verification requirements referred to in subsection (3) are carried out by an independent person that was not involved in the original design.	CAPP recommends rephrasing this sentence as follows: "Independent person that was not involved in the original design" may include someone within the operator's organization, as current wording may lead to incorrect and inconsistent interpretation. This could be interpreted as a 3rd party requirement outside of the operators' organization, however, the expertise in most cases may be available internally.

Other information (3)Subject to subsection (4), the certification plan must also include the following documents and information: (a)a description of the installation that is to be certified, including its systems and equipment; (b) a list of all safety-critical elements, as well as a description of how the associated performance standards are to be developed; (c) the measures to be implemented to reduce safety and environmental risks to a level that is as low as reasonably practicable in respect of (i)the design of an installation, including its systems and equipment, for the purposes of section 98, (ii)the design and operation of an installation that is to be operated in a cold climate, for the purposes of subsections 103(5) and (iii)the design, arrangement, installation and maintenance of barriers, for the purposes of subsections 111(4) and (5), (iv)the design of any control system, for the purposes of subsection 121(1), (v)the design, selection, location, installation, commissioning, protection, operation, inspection and maintenance of mechanical equipment, for the purposes of paragraph 132(1)(a), (vi)the design, construction, installation, commissioning, operation, inspection, monitoring, testing and maintenance of a subsea production system under all foreseeable physical and environmental conditions and operating conditions for all modes of operation, for the purposes of subsection 134(1), (vii)the management of temporary or portable equipment without compromising the ability to achieve the target levels of safety set out in the safety plan and environmental protection plan, for the purposes of subsection 135(3), and (viii)the arrangement and specification of water- tight and weathertight appliances, for the purposes of subsection 141(4);	CAPP recommendation: Remove the circular reference by revising 29 3 (c) and 29 3 (d) as they appear to duplicate one another. Why do we need (c) and (d) beyond (e) and (f)?
47. Emergency response procedures and other documentation An operator must ensure that a copy of the most current version of the emergency response procedures and any documentation necessary to carry out an authorized work or activity and to operate and maintain any installation or pipeline is (a) readily and reliably accessible at every operations site and any emergency response operations centre; and (b) usable under all foreseeable circumstances at each location referred to in paragraph (a).	CAPP clarification request:: Section 47 - please provide guidance on what constitutes "other documentation" as this could be substantial based on regulatory wording.
Plans	
PART 5: Geoscientific Programs, Geotechnical Programs and Environmental Programs	
Destruction, Discard or Removal	
55. Destroy, discard or remove from Canada (1) It is prohibited for any person to destroy, discard or, subject to subsection (2), remove from Canada the following material or information that was acquired in the context of a geoscientific program, geotechnical program or environmental program unless the Board has approved it in accordance with subsection (3): (a) all field data and final processed data in digital format and a description of the data format; (b) any samples; and (c) all other data, observations, readings and supporting information obtained during the program. Exception (2) The material or information referred to in subsection (1) may be removed from Canada without the approval of the Board for the purpose of being processed in a foreign country provided that the material or information is returned to Canada as soon as the processing is complete. Approval (3) The Board must, within 60 days after receiving an application for approval to destroy, discard or remove from Canada the material or information referred to in subsection (1), approve the application if the Board is satisfied that the material or information is not of much use or value. Material or information (4) The Board may, after receiving an application under subsection (3), require that the material or information, or a copy of the information, be provided to the Board within the period that it specifies.	CAPP clarification request: What about digital storage? Some digital storage sites are not located in Canada (i.e. cloud computing). How will this be considered in the regs?
PART 6: Drilling and Production	
General	
57. Spacing and production rates The Board may make orders respecting the allocation of areas, including the determination of the size of spacing units and well production rates, for the purpose of drilling for or producing petroleum.	CAPP clarification request: For clarification please explain what is meant by "the Board may make orders respecting the allocation of areas determining the size of spacing units and well production rates."
Well Integrity	

68. Well control (1) An operator must ensure that adequate procedures, materials and equipment are in place and used throughout the life cycle of the well to prevent the loss of well control. Reliable well control equipment (2) The operator must ensure that reliable well control equipment is in place to detect and control kicks, prevent blowouts and safely conduct all well operations. Shallow hazards (3) During well operations conducted without a riser, the operator must ensure that measures are taken to reduce the risk of shallow hazards while drilling. Blowout preventer and barrier envelopes (4) The operator must, after setting the surface casing, ensure that the blowout preventer is installed before drilling out the casing shoe and that there is a minimum of two independent barrier envelopes — each of which to be verified by the operator — in place throughout the life cycle of the well. Barrier envelope failure (5) If there is a failure in a barrier envelope, the operator must ensure that no other well operation takes place, other than those operations intended to replace or restore it, until the barrier envelope is replaced or restored. Replacement or restoration of barrier envelope (6) The operator must ensure that (a) the replacement or restoration referred to in subsection (5) is completed as soon as the circumstances permit; (b) every effort is made for the replacement or restoration to conform to the original design specifications; and (c) the barrier envelope is verified after its replacement or restoration. Drilling fluid column (7) The operator must ensure that, during well operations, one of the two barrier envelopes is the drilling fluid column, except when drilling under-balanced or if, when a completion or test string is run, the other barrier envelope has already been installed downhole and tested. Pressure control equipment (8) The operator must ensure that pressure control equipment associated with well operations is pressure-tested on installation and as often as necessary to ensure its continued safe operation. Corrective measures (9) If well control is lost or if safety, the protection of the environment or resource conservation is at risk, the operator must ensure that any necessary corrective measures to rectify the situation are taken without delay. Definition of surface casing (10) In this section, surface casing means the casing installed in a well to a sufficient depth, in a competent formation, to establish well control for the continuation of the drilling operations.	CAPP recommendation: 68(5) does not allow for the troubleshooting or diagnostics to investigate a barrier failure. Suggest re-wording as "…, other than those operations intended to investigate, replace or restore it, …" CAPP recommendation: 68(6)(b) Replacement / restoration should not need to conform to the original design but rather be suitable for the remaining well life anticipated loads (factors include depletion, produced CO2/H2S and remaining life, etc). Suggest re-wording as "replacement or restoration to meet the requirements of the remaining life of the well." CAPP recommendation: 68(7) does not allow for live well intervention operations where the second well control barrier using surface pressure control equipment as there additional barrier is not downhole. Suggest deleting the word "downhole" or revising to allow for live well intervention operations.
69. Casing and cementing (1) An operator must ensure that a casing and wellhead system is designed so that, throughout the life cycle of the well, (a) the well can be drilled safely, targeted formations can be evaluated and developed and waste can be prevented; (b) the maximum conditions, forces and stresses that may be placed on the casing and wellhead system are withstood; and (c) the integrity of gas hydrate and permafrost zones is protected. Design requirements (2) The operator must ensure that, during the design of the casing and wellhead system, (a) the wellhead's fatigue life is taken into account; and (b) if the annulus is to be used for fluid production or injection, a barrier analysis is conducted to confirm that two barrier envelopes can be maintained in place throughout the life cycle of the well. Casing depth (3) The operator must ensure that the casing is installed at a depth that provides for adequate kick tolerance and safe well control. Wellhead fatigue life (4) The operator must ensure that the duration of well operations does not exceed the wellhead's fatigue life. Cement slurry (5) The operator must ensure that the cement slurry is designed and installed so that, throughout the life cycle of the well, (a) the movement of formation fluids is prevented and, when required for safety, resource evaluation or waste prevention, the isolation of the petroleum and water zones is ensured; (b) support for the casing is provided; (c) corrosion of the casing over the cemented interval is minimized; and (d) the integrity of gas hydrate and permafrost zones is protected. Pressure testing and logging (6) The operator must ensure that the cement integrity and placement is verified through pressure-testing and, if the cement is a common barrier element of the two barrier envelopes or confirmation of zonal isolation is required, also verified through logging. Other measures (7) Measures other than those referred to in subsection (6) may be used if the operator can demonstrate that the other measures provide equivalent levels of verification. Cement design and slurry analysis (8) The operator must ensure that the cement design is subjected to comprehensive laboratory testing and pre-cementing quality control under all foreseeable conditions that could have an	CAPP recommendation: 69(4) In the event of unplanned well activities prolonging the expected duration of operation on a well, it may not always be possible to ensure that operational duration never exceeds a probabilistically-derived fatigue life limit. Suggest re-wording as "The operator must ensure that the planned duration of well operations does not exceed the wellhead's fatigue life." CAPP clarification request: It is not currently the practice to log production cement which is a common barrier element of the primary and well secondary barrier envelops until the abandonment phase of the well, unless there was some upset condition during the placement of the cement (e.g.: partial returns, etc). Please confirm that the current practice that has been executed for existing wells would continue to be acceptable. CAPP recommendation: 69(10) reword as "After installing and cementing the casing and before drilling out the casing shoe, the operator must ensure that the casing is pressure-tested to the value required to confirm its integrity for the remaining well construction operations. Prior to well termination, operator must ensure that casing is pressure tested to the value required to confirm its integrity for maximum anticipated operating pressure throughout the life cycle of the well."

71. Completion, testing and operation (1) The operator of a well must ensure that (a) the well is completed, tested and operated in a safe manner that allows for maximum recovery of petroleum without waste or pollution throughout the life cycle of the well; (b) except in the case of commingled production, each completion interval is isolated from any other porous and permeable interval penetrated by the well; (c) if applicable, the production of sand, carbonate or other solids is controlled and does not create a safety hazard or cause waste; (d) the setting depth of each packer is as deep as possible and must be such that any leak through the production casing below the packer will be contained by the barrier envelope outside the casing; (e) the formation and any annulus seal can withstand the pressures and temperatures expected throughout the life cycle of the well; (f) if practicable, any mechanical well condition that may have an adverse effect on the production of petroleum from, or the injection of fluids into, the well is corrected; (g) the injection or production profile of the well is improved or the completion interval of the well is changed if it is necessary to do so to prevent waste; (h) if different pressure and inflow characteristics of two or more pools might adversely affect the recovery of petroleum from any of those pools, the well is operated as a single pool well or as a segregated multi-pool well; (i) during completion operations and before the removal of pressure control equipment and handover for operations, all barrier elements are tested to the maximum pressure to which they are anticipated to be subjected and, if possible, pressure testing is in the direction of flow; and (j) following any workover or intervention, any affected barrier elements are pressure-tested. Segregated multi-pool well (2) The operator of a segregated multi-pool well must ensure that (a) after the well is completed, segregation within and outside the well casing is verified; and (b) if there is reason to doubt that segregation is being maintained, a segregation test is conducted as soon as the circumstances permit. Definition of multi-pool well (3) In this section, multi-pool well means a well that is completed in more than one pool.	CAPP clarification request: 71(1)(b) Operators currently include an estimated cost for a full well.
Production Conservation	
79. Resource management An operator must, in respect of the recovery of petroleum, ensure that (a) recovery from a pool or zone is maximized in accordance with good oilfield practices; (b) wells are located and operated to provide for maximum recovery from a pool or zone; and (c) if there is reason to believe that infill drilling or implementation of an enhanced recovery plan might result in increased recovery from a pool or field, studies on those methods are conducted and submitted to the Board.	CAPP clarification request: The term "pool" has a very specific definition in the regulations. The definition of "Zone" is not very clear - and we recommend augmenting the current definition.
81. Pilot scheme (1) An operator may develop and implement a pilot scheme that applies technology for the determination of commercial production of petroleum from a pool, field or zone accessible from a production installation that has an approved development plan in order to obtain information on reservoir, production or technology performance for the purpose of optimizing production performance under the approved development plan or determining whether the development plan requires an amendment for the purposes of optimization. Duration (2) The Board must establish the duration of the pilot scheme based on the time required to achieve the stated objectives. Completion of pilot scheme (3) On the completion of the pilot scheme, the operator must ensure that production activities related to the scheme are discontinued.	CAPP recommendation: Item (3) as written is problematic. In a successful case, the operator may wish to keep the pilot on production for longer to gain additional data and/or during the period that the well(s)/zone/area/pool is being added to the development. There is nothing in the regulations to allow for that possibility. Perhaps "The Pilot Scheme may be extended with Board approval" could be added?

82. Prohibition against flaring or venting It is prohibited for an operator to flare or vent gas unless (a) the Board authorizes flaring or venting as part of the authorization or permits it in the approval under subsection 62(5); or (b) it is necessary in order to remediate an emergency situation that may cause serious risk to human health or safety and the Board is notified, as soon as the circumstances permit, of the flaring or venting and of the volume flared or vented.	This language in s. 82 comes from the D&P requirements which CAPP fully supports. For 82 (a) "Prohibition against flaring or venting 82 "It is prohibited for an operator to flare or vent gas unless (a) the Board authorizes flaring or venting as part of the authorization or permits it in the approval under subsection 62(5);" Please clarify if this is tied to the venting described in section 9(h)(i)(A), which relates to an Authorization "in the case of a drilling program or a production project." Note, section 62(5) relates to the approval of a formation flow test. CAPP also recommends amending 82 (b) to remove the word "remediate" and replace this with "prevent" as prevention is the first line of defense against a leak or spill. CAPP recommends revising 82 (b) as follows: "it is necessary in order to prevent an emergency situation that may cause serious risk to human health or safety and the Board is notified, as soon as the circumstances permit, of the flaring or venting and of the volume flared or vented." CAPP also recommends defining "venting" in the framework regulation to align with the federal methane regulation and applicable definition. The ECCC definition is "venting, is in relation to emissions of hydrocarbon gas, "which means the emission of hydrocarbon gas from an upstream oil and gas facility in a controlled manner, other than the emission of gas arising from combustion, due to (a) the design of equipment or operational procedures at the facility; or (b) the occurrence of an event that pressurizes the gas beyond the capacity of the equipment at the facility to retain the gas"
82. Prohibition against flaring or venting It is prohibited for an operator to flare or vent gas unless (a) the Board authorizes flaring or venting as part of the authorization or permits it in the approval under subsection 62(5); or (b) it is necessary in order to remediate an emergency situation that may cause serious risk to human health or safety and the Board is notified, as soon as the circumstances permit, of the flaring or venting and of the volume flared or vented.	CAPP clarification request:: 82 (a) Please clarify the definition of gas. As written, it is unclear if gas means GHG or all gases.
83. Venting limit (1) An operator must ensure that the volume of gas vented under paragraph 82(a) is not greater than 15 000 standard m3 of gas per installation during a year. Capture or venting of emissions (2) The operator must ensure that the emissions of gas from the seals of a centrifugal compressor or reciprocating compressor at an installation are (a) captured and routed to gas conservation equipment or gas destruction equipment; or (b) routed to vents that release those emissions into the atmosphere. Measure of flow rate of emissions (3) The operator must ensure that the flow rate of emissions of gas released from vents referred to in paragraph (2)(b) is measured by means of a continuous monitoring device. Requirements of continuous monitoring device (4) The continuous monitoring device must (a) be calibrated in accordance with the manufacturer's recommendations such that its measurements have a maximum margin of error of ±10%; (b) be operated continuously, other than during periods when it is undergoing normal servicing or timely repairs; and (c) be equipped with an alarm that is triggered when the applicable flow rate limit referred to in subsections (5) and (6) for the vents of the compressor is reached. Centrifugal compressor (5) The flow rate limit of emissions that are from the vents of a centrifugal compressor on an installation is (a) if the compressor is installed before January 1, 2023 and has a rated brake power of (i) greater than or equal to 5 MW, 0.68 standard m3/min, and (ii) less than 5 MW, 0.34 standard m3/min; or (b) if the compressor is installed on or after January 1, 2023, 0.14 standard m3/min.	CAPP recommendation: There are several sections in the framework regulation that do not mirror the federal methane regulations such as sections 47, 48, 49, 50, and 52, CAPP recommends that Part B from the federal methane regulations be added to the framework regulation or specific reference to the methane regulations be included. For consistency, CAPP also recommends section 83 be titled Venting and section 84 Compressors
	CAPP clarification request: 83(1), 83(5) please clarify if the vent limit is to include venting from compressor the cargo tanks, and compressor seal vents.
Reciprocating compressor (6) The flow rate limit of emissions that are from the rod packings and distance pieces of a reciprocating compressor on an installation is (a) if the compressor is installed before January 1, 2023, the product of 0.023 standard m3/min and the number of those pressurized cylinders; or (b) if the compressor is installed on or after January 1, 2023, the product of 0.001 standard m3/min and the number of pressurized cylinders that the compressor has. Corrective action	CAPP recommendation: The emphasis needs to be on the seals and not the type of compressor being used. This could be alleviated by directly referencing Part B of the federal methane regulations.
84. Prohibition against oil burning It is prohibited for an operator to burn oil unless (a) the Board authorizes burning as part of the authorization or permits it in the approval under subsection 62(5); or (b) it is necessary in order to remediate an emergency situation that may cause serious risk to human health or safety and the Board is notified, as soon as the circumstances permit, of the burning and of the amount burned.	CAPP recommendation: add an 84 (c) to accommodate in-situ burning as an alternative response measure. More specifically, " the Chief Conservation Officer authorizes in-situ burning as an alternative response measure for oil spill response."
PART 8: Installations, Wells, Pipelines and Vessels	

Installations	
General	
damaged condition means, with respect to a floating platform, the condition of the platform after it has suffered damage to the extent determined in accordance with the applicable recommendations of the MODU Code or, in the case of a platform that is not a mobile offshore drilling unit, the applicable rules of a classification society. (condition endommagée)	CAPP clarification request: Clarification is needed on the stability requirements for non-drilling floating platforms. For example, the definition of "damaged condition" here refers to applicable classification society rules in the case on a non-MODU. However, section 138(3) refers to the MODU Code (and Part B of the IS Code) as mandatory with respect to the stability and motion response of floating platforms; there is no reference to classification society rules for non-drilling units. Refer also to comments on section 138(3).
111. Passive fire and blast protection (1) An operator must ensure that an installation is designed to provide passive fire and blast protection. Design of passive fire protection (2) The design of the passive fire protection must (a) not take into account the cooling effect from active fire-fighting equipment; and (b) reflect the need to inspect and maintain the passive fire protection components and the structures, divisions and equipment they are intended to protect. Divisions (3) The operator must ensure that the installation is divided such that spacing and barriers protect against accidental events and loads identified in the risk assessment undertaken in accordance with subsection 106(1) or mitigate their effects. Barriers — certification plan (4) **The operator must ensure** that barriers are designed, arranged, installed and maintained in accordance with the measures included in the **certification plan referred to in subparagraph 29(3)(c)(iii).** Barriers — requirements (5) Barriers must be designed, arranged, installed and maintained in order to (a) prevent the spread of fire, smoke, explosions and hazardous gas and their effects on any adjacent areas; (b) protect persons from fire, smoke and explosions for the time necessary to enable escape to a temporary safe refuge; (c) ensure the integrity of temporary safe refuges and of associated facilities that allow for communication, command, monitoring, control and evacuation for the time necessary, as determined in accordance with the safety studies referred to in section 115; (d) protect safety-critical elements and equipment that are to remain operational in the event of an emergency from failure or malfunction that would increase safety or environmental risks; and (e) maintain structural integrity for the time necessary to safely evacuate all persons.	CAPP recommendation: CAPP supports performance goals and recommends removing references to H120 requirements. It was generally agreed that the demonstration of the same level of protection was at the CA design appraisal level and not through an RQ. CAPP recommends that different language for the “same level of protection” be considered “acceptable”. Also, consider…” demonstrated to reduce risks to ALARP”. For 111(4) “suggest the addition of "barrier" with respect to PFP be added to definitions
Barriers — technical drawings 111.(6) The level of protection that each barrier must provide is to be based on the results of the risk assessment undertaken in accordance with subsection 106(1) and the description and location of each barrier must be included on the technical drawings of the installation. Barriers — penetrations and openings (7) Barriers must not have any penetrations or openings unless (a) the penetration or opening is necessary for the functionality of the installation; (b) the barrier is equipped to maintain the overall fire and blast integrity, despite the penetration or opening; and (c) there is a means of operating closing devices outside the space being protected if those devices require manual activation. Barrier components (8) The operator must ensure that barrier components are certified by a competent third party. Bulkheads — production installation (9) Unless the other combined features of a production installation can be demonstrated to provide at least the same level of protection, the operator must ensure that the following bulkheads are capable of preventing the passage of smoke and flame and to limit the unexposed face to an average temperature increase of 139 °C and a maximum temperature rise of 180 °C above the initial temperature following 120 minutes of exposure to a hydrocarbon fire: (a) external bulkheads of the temporary safe refuge, main control centre and control stations that are facing production areas or wellheads, accommodations areas, embarkation stations and evacuation points, excluding the aircraft landing areas; and (b) the bulkheads that segregate the wellhead and processing areas from other areas of the installation. Classification society rules (10) The operator must ensure that the passive fire and blast protection for an installation that does not hold a valid certificate of class issued by a classification society is at least equivalent to the protection required under the rules of a classification society for a mobile offshore drilling unit.	CAPP clarification request: Clarification with respect to the wording of clause 111(9)(a). As currently written, the current wording suggests all external bulkheads to the accommodations are effectively rated to H120. We believe the intent of the language in FORRI is that only the external bulkheads that are facing production are required to be H120. CAPP recommendation: Suggest revising this to "external bulkheads of the Temporary Safe Refuge, accommodations, embarkation stations and evacuation points excluding helidecks, and main control rooms and control stations that are facing production or well heads.

113. Ventilation of enclosed hazardous areas (1) An operator must ensure that any enclosed hazardous area on an installation is ventilated such that (a) air is replaced at a rate sufficient to prevent hazardous gas accumulations in the enclosed hazardous area; (b) all air entering the enclosed hazardous area is from a non-hazardous area; (c) the air exhausted from the enclosed hazardous area does not increase the hazard level in an existing hazardous area or create a hazard in a non-hazardous area; and (d) the ventilation system for any enclosed hazardous area is separate from the ventilation system for any non-hazardous area. Mechanical ventilation system (2) If a mechanical ventilation system is used for the purposes of subsection (1), the operator must ensure that the air in the enclosed hazardous area is maintained at a pressure that is lower than the pressure of any adjacent non-hazardous area or hazardous area that is classified as less hazardous. Air exhaustion from enclosed hazardous area (3) The operator must ensure that all air exhausted from an enclosed hazardous area is let into an outdoor area that would be non-hazardous or classified as equal to or less hazardous than the enclosed hazardous area, had it not received the air from the enclosed hazardous area. **Ventilation pressure differential and functionality** (4) The operator must ensure that measuring devices are installed for each ventilation system of a hazardous area to monitor any loss of ventilation pressure differential and loss of functionality of that system and to activate audible and visual alarms at control points from which the system is monitored after a period of delay not exceeding 30 seconds, if such a loss occurs. Positive overpressure relative to atmospheric pressure (5) The operator must ensure that the main control centre and all accommodations areas on an installation (a) are maintained at a positive overpressure relative to atmospheric pressure; (b) have airlocks for all external doors that provide a primary means of access to that centre or to those areas; and (c) have airlocks for all other external doors or other means of maintaining and monitoring positive overpressure relative to atmospheric pressure.	CAPP recommendation: CAPP recommends changing "monitoring devices" to "control devices" in section 6.13 (4) Suitable measuring device(s) shall be installed to monitor the functionality of the ventilation system required by subsection (1) and/or (2) or maintained under section 6.13 6.19, and to activate audible and visual alarms at the appropriate control point after a suitable period of delay not exceeding 30 seconds if a loss of functionality occurs. CAPP suggests that 30-second criteria should be challenged; In practice, this creates an alarm management issue as it does not provide sufficient time for pressures to re-establish / re-balance following normal opening and closing of doors - Potential to result in complacency and risks due to elevated alarm counts in CCR. (8)(a) - CAPP recommends that 'measuring devices' be replaced with 'control devices' similar to Section (4) - Alternate means of loss of dp (e.g. motor run indication) should be able to be used in lieu of direct measurement
114. Ignition prevention (1) In order to prevent the ignition of flammable, combustible or explosive substances on an installation, an operator must ensure that measures are taken to prevent the uncontrolled release or accumulation of those substances, including by ensuring that materials and equipment are properly arranged. Design — systems and equipment (2) The operator must ensure that any system or equipment that is to be used in a hazardous area is designed to control ignition sources and prevent fire and explosions taking into account the classification under subsection 112(2) of the area in which it is to be used. Other requirements — equipment (3) The operator must ensure that any equipment located in a hazardous area is rated for use in that area and installed, ventilated and maintained to ensure safe operation. Safe distance operation (4) The operator must ensure that any equipment that is not rated for use in a hazardous area is operated at a safe distance from any flammable, combustible or explosive substances and equipped with an automatic and manual means of deactivation in the event of fire or hazardous gas detection. Equipment in event of emergency (5) The operator must ensure that any equipment that is to remain in service in the event of an emergency associated with a gas release is rated as if it were located in a hazardous area. Risk assessments (6) For the purposes of meeting the requirements under subsections (1) to (5), the operator must ensure that any control measures identified in the risk assessment undertaken in accordance with subsection 106(1) are implemented. Cargo tank (7) The operator must ensure that the internal gas mixture inside a cargo tank is maintained outside the explosive limits and the systems associated with the cargo tank are designed to (a) prevent fire, gas or explosion hazards during all modes of cargo operations by establishing sufficient control measures, including alarms and redundancies in the measures; and (b) ensure that affected persons are made aware when such systems become impaired. Work permit (8) A work permit is required for all hot work carried out on an installation. Safe distances (9) The work permit for hot work must set out safe distances between the hot work and any well or any flammable, combustible or explosive substances.	CAPP recommendation: For section 114 (7b) - please provide additional clarity or definition of what constitutes "affected persons". This reference is also used in several other clauses and clarification is appreciated.

117. Life-saving appliances for installation (1) An operator must ensure that an installation is equipped with life-saving appliances that (a) are sufficient in number and have the necessary redundancy to ensure their availability in any emergency situation; and (b) meet the requirements of the LSA Code and IMO Resolution MSC.81(70), as if the installation were a vessel to which the Code and the Resolution apply. Loads (2) The operator must ensure that life-saving appliances can withstand all loads to which they may be subjected when they are in use. Space requirements and weight (3) The operator must ensure that, in determining the number of persons any lifeboat, life raft or marine evacuation system can accommodate, the persons' space requirements and weight while wearing immersion suits are taken into account. Arrangement and selection (4) The operator must ensure that the arrangement and selection of life-saving appliances are based on (a) the safety studies referred to in section 115, including any escape and evacuation analysis that takes into account any major accidental events; and (b) in the case of fire and explosion hazards and hazards related to hazardous gas releases, the results of the risk assessment undertaken in accordance with subsection 106(1). Position (5) The operator must ensure that copies of a plan showing the position of all life-saving appliances are posted on the installation, including in the main control centre and in any accommodations area and work area. Lifeboats — availability (6) The operator must ensure that the lifeboats on an installation (a) are in at least two separate locations, one of which is adjacent to a temporary safe refuge; (b) have a combined capacity to accommodate the total number of persons on board if one lifeboat at any location is lost or rendered unusable; and (c) in the case of a floating platform, have a combined capacity to accommodate the total number of persons on board under any credible scenario of angle of heel accompanied by the most unfavourable combination of ocean currents and wave and wind forces that can be expected over a period of one year. Lifeboats — specifications (7) The operator must ensure that the lifeboats are totally enclosed or are free-fall lifeboats and that they are fire-protected. Lifeboats — continuous communication (8) The operator must ensure that the lifeboats are capable of being in continuous communication with the other lifeboats and vessels in the area. Lifeboats — towing devices	CAPP clarification required: Note the addition of (c) in the case of a floating platform, must have a combined capacity to accommodate the total number of persons on board under any credible scenario of angle of heel accompanied by the most unfavorable combination of ocean currents and wave and wind forces that can be expected over a period of one year. Please clarify what is tying this requirement to a one-year storm condition. For section 117 (10) Life rafts – should read 'on an installation are of a combined capacity instead of 'on an installation and of a combined capacity.
Systems and Equipment — Design, Installation, Commission and Other Requirements	
123. Emergency electrical power supply (1) An operator must ensure that an installation has an emergency electrical power supply that is independent of the main electrical power supply such that the following systems and equipment continue to function in the event of a failure of the main electrical power supply: (a) the lights in the locations referred to in subsection (2); (b) hazard detection systems, including the central monitoring system referred to in section 165 and the fire and gas detection systems referred to in section 128, emergency response and life-saving systems, including the life-saving appliances referred to in section 117, and any other system or equipment referred to in the safety plan referred to in section 10 and the contingency plan referred to in section 12; (c) the communication system referred to in section 125 and related equipment necessary to comply with the contingency plan referred to in section 12; (d) the emergency shutdown system referred to in section 129; (e) navigation lights and sound-signalling appliances referred to in subsection 124(1); (f) in the case of a floating platform, ballast systems referred to in section 140, pumps and powered watertight doors and hatches necessary to stabilize the installation; and (g) systems and equipment necessary to suspend drilling or production in progress at any one time in a safe manner, including the disconnectable mooring system referred to in section 144 and the disconnect system referred to in section 146, blowout prevention systems, including the blowout preventer referred to in subsection 68(4), and pumping systems. Lights (2) The operator must ensure that the installation is equipped with lights supplied by the emergency electrical power supply in the following locations: (a) embarkation and debarkation stations and evacuation points; (b) escape routes, temporary safe refuges, service and accommodations area corridors, stairways, exits and personnel lift cars; (c) any control centre, control station and any other area from which the communication system referred to in section 125 is controlled; (d) spaces from which drilling or production equipment, including any equipment that is critical to its operation, is controlled; (e) spaces where equipment related to the emergency shutdown system referred to in section 129 and the power plants referred to in paragraph 120(4)(b) are located; (f) areas where emergency response equipment, described in the contingency plan referred to in section 12, is stored; and (g) aircraft landing areas and any obstacle to take-off and landing.	Emergency electrical power supply 123 (1) An operator must ensure that an installation has an emergency electrical power supply that is independent of the main electrical power supply such that the following systems and equipment continue to function in the event of a failure of the main electrical power supply: (f) in the case of a floating platform, ballast systems referred to in section 140, pumps and powered watertight doors and hatches necessary to stabilize the installation; CAPP clarification request: referring to section 123(1)(f) above, the MODU Code requires emergency power to ballast pumps only on column-stabilized units. Also, Class rules for a ship-shaped unit do not require emergency power to ballast pumps.

127. Gas release system (1) An operator must ensure that an installation that includes process tanks, process vessels and piping has a gas release system that has a flaring system, a pressure relief system, a depressurizing system or a cold vent system. Risk assessment — design (2) The operator must ensure that the design of the gas release system is based on the results of the risk assessment undertaken in accordance with subsection 106(1). Design (3) The operator must ensure that the gas release system is designed (a) to release gas and combustible liquid from an installation in a controlled manner without creating a hazard to safety; (b) to reduce pressure in the entire process system as quickly as possible while ensuring a safe and controlled release of pressure; (c) to minimize the effect on the environment; and (d) to be activated from the main control centre and from control stations that meet the requirements of subsection (6). Oxygen (4) The operator must ensure that the gas release system is designed and constructed to ensure that oxygen cannot enter the system during normal operations. Location — system (5) The operator must ensure that the gas release system is designed and located taking into account factors, including physical and environmental conditions, that affect the safe and normal flaring or emergency release of combustible liquid, gases or vapours so that when the system is in operation it does not damage the installation — or any other installation, vessel or support craft in proximity to it — or injure any person. Control stations (6) The operator must ensure that the control stations from which the gas release system is activated are located and spaced so that they remain protected and accessible for safe operation of the system. Flaring system (7) The operator must ensure that the flaring system and any associated equipment are designed to (a) ensure a continuous flame using an automatic igniter system, with redundancy in its ignition capabilities, if an unlit release of gas could produce toxic gas concentrations or gas concentrations of more than 50% of the lower explosive limit of the released gas; (b) withstand the radiated heat at the maximum flaring rate; (c) prevent flashback; and (d) withstand all loads to which they may be subjected.	CAPP clarification request: 127 (7) (a): request clarification on wording "ensure a continuous flame using an automatic igniter system, with redundancy in its ignition capabilities, ... ". I.e. clarify if redundancy within the automatic ignitor system is required or does a manual backup to ignition (flare gun) meet the intent?
130. Fire protection systems and equipment (1) An operator must ensure that an installation is equipped with fire protection systems and equipment to control and extinguish fires. Certification plan (2) The operator must ensure that the fire protection systems and equipment are designed, selected, operated, inspected, tested and maintained in accordance with the measures included in the certification plan referred to in subparagraph 29(3)(d)(ii). Design and selection (3) The design and selection of fire protection systems and equipment, including suppression agents, must take into account their intended use and the results of the risk assessment undertaken in accordance with subsection 106(1). Further requirements (4) The operator must ensure that the fire protection systems and equipment include (a) automated fixed fire suppression systems with capability for manual activation outside the space that is being protected; (b) fixed monitors, deluge systems and foam systems; (c) manual firefighting systems and equipment; and (d) necessary redundancies to ensure the systems function in the case of the failure of one of their components. Protection from damage (5) The operator must ensure that the fire protection systems and equipment are protected from mechanical damage and damage caused by fire or explosion or physical and environmental conditions to which they may be exposed to remain capable of fulfilling their intended functions under all foreseeable operating conditions.	CAPP solicited feedback from both active CAs and their responses have been provided to NRCan in January 2021 as well as RQ examples. Recent industry experience has been that accommodations Installations do not require this. The requirement for a fixed sprinkler system is cost prohibitive for several vessels during the contracting process, to the degree that the preferred vessel, from a technical and safety perspective, was disqualified because of the time and cost to add a sprinkler system was prohibitive (months and millions). In addition, vessels owners often have several vessels capable of performing the scope and can swap vessels as the installation date nears. Again, with a limited number of vessels providing this service, most of which do not have sprinklers systems in their accommodations, the ability to choose the preferred vessel or vendor is limited." This clause now forces the industry use older vessels with fixed sprinkler systems because modern vessels have alternate measures for meeting this requirement.
Fixed fire suppression system (6)The operator must ensure that an automated fixed fire suppression system is installed in the accommodation area, in any hazardous area and in any other areas that require such a system based on the results of the risk assessments undertaken in accordance with subsection Fire pumps (7)The operator must ensure that at least two dedicated, segregated and independently driven fire pumps supply a dedicated firewater ring main and each of those fire pumps is equipped with at least two independent starting devices.	As CAPP has stated previously, the addition of a fixed fire suppression (extinguishing) system to accommodation areas and some other enclosed areas on a MODU would comprise an extensive upgrade to an otherwise compliant installation. The retrofit is very costly in time and money, and it is considered disproportionate to the fire risk in these spaces considering other fire protection features. This requirement will have the ultimate effect of limiting the availability of MODUs to be brought into the Canadian offshore area, which will inhibit the goal of increased exploration towards 2030.
Platforms — Additional Requirements	

138. Stability (1) An operator must ensure that a floating platform is stable and can be operated safely — under intact or damaged conditions — in relation to all motions and loads to which it may be subjected, including by (a) determining the stability and motion response characteristics of the platform using analysis or model testing; (b) determining the critical maximum loads and motions that the platform can withstand; (c) ensuring that all equipment is fastened to prevent unintended movement; and (d) monitoring and recording all loads that could affect motions, stability or inclination of the platform. Freeboard (2) The operator must ensure that a floating platform has sufficient freeboard to operate safely under the maximum environmental load conditions to which it may be subjected. Requirement — Codes (3) The applicable recommendations concerning the stability and motion response of a floating platform in the MODU Code and Part B of the IS Code are mandatory and the operator must comply with them, except with respect to the recommendations for the inclining test for column-stabilized units under paragraphs 3.1.5.1 and 3.1.5.2 of the MODU Code, which are replaced by the requirements under subsections (5) and (6). Gap analysis (4) The operator must, every time the MODU Code is updated, undertake a gap analysis between the criteria in the updated version and the version that was used for the construction of the floating platform and any gaps must be risk-assessed and mitigation measures implemented, as required, by the operator. Inclining test — first survey (5) The operator must, in the case of a column-stabilized mobile offshore platform, ensure that a lightweight survey or inclining test is carried out during the first five-year classification society survey and that, if a lightweight survey is carried out and it indicates a change from the calculated light ship displacement of more than 1% of the operating displacement, an inclining test is carried out. Subsequent five-year surveys (6) During every subsequent five-year classification society survey, the operator must ensure, if the lightweight survey or inclining test during the first five-year survey demonstrated that the column-stabilized mobile offshore platform was maintained in accordance with the weight control program under paragraph 154(1)(c) and this is confirmed by the records referred to in paragraph 3.1.4 of the MODU Code, that light ship displacement is verified in operation by comparison of the calculated and observed draught. If the difference between the expected displacement and the actual displacement based on draught readings is more than 1% of the operating displacement, the operator must ensure that a lightweight survey is carried out in accordance with subsection (5). Subsequent inclining tests	CAPP clarification request: Clarification is needed on the stability requirements for non-drilling floating platforms. For example, the definition of "damaged condition" here refers to applicable classification society rules in the case of a non-MODU. However, section 138(3) refers to the MODU Code (and Part B of the IS Code) as mandatory with respect to the stability and motion response of floating platforms; there is no reference to classification society rules for non-drilling units. Refer also to comments on section 138(3). - 138(3) - Please clarify / confirm if the MODU code requirements are intended to apply to all floating platforms incl. non-drilling units, or if classification society rules / requirements may apply instead (refer also to related comment on definition of "damaged condition" in section 96). 138(3) - Please confirm that Part A of the IS Code is not applicable or mandated; therefore stability criteria for all floating platforms including ship-shaped units (i.e. FPSOs) is to follow the MODU Code requirements (or instead classification society rules / requirements depending on response to previous item). 138(3) - It is noted that Part B of the IS Code contains "recommendations" (not mandatory criteria) per IMO. Please clarify / confirm if Part B is considered mandatory per the Regulations. Also, please clarify if classification society rules / requirements may apply in-lieu of the IS Code requirements.
140. Ballast and bilge systems (1) An operator must ensure that a floating platform is equipped with reliable ballast and bilge systems with the necessary redundancy in their components to (a) maintain necessary draught, stability and hull strength under all foreseeable operating conditions; (b) return the floating platform to a safe condition from an unintended draught, trim or heel; (c) prevent unintended transfer of fluid within the system; (d) empty and fill all tanks that are a part of the system; and (e) completely and rapidly empty watertight spaces. Requirement — Code (2) The recommendations in the MODU Code concerning ballast and bilge systems are mandatory and the operator must comply with them. Secondary ballast control station (3) In the case of a column-stabilized mobile offshore platform, the operator must ensure that it is equipped with a secondary ballast control station that is equipped with (a) an effective means of communication with other spaces that contain equipment relating to the operation of the ballast system; (b) a ballast pump control and status system; (c) a ballast valve control and status system; (d) a tank level indicating system; (e) a permanently mounted ballast schematic diagram; (f) heel and trim indicators; (g) a draught-indicating system; (h) a system to indicate the available power from the main and emergency electrical power supplies; and (i) a ballast system hydraulic or pneumatic pressure-indicating system. Location — secondary ballast control station (4) The operator must ensure that a secondary ballast control station is located above the waterline in the final condition of equilibrium after flooding when the floating platform is in a damaged condition. Failure modes and effects analysis (5) An operator is not considered to be in compliance with this section unless the ballast and bilge systems have been assessed through a failure modes and effects analysis.	CAPP clarification request: “Please clarify / confirm if the MODU Code requirements are intended to apply to non-drilling floating platforms; or if classification society rules / requirements may apply instead.”

141. Watertight and weathertight integrity and freeboard — Codes (1) The applicable recommendations concerning watertight and weathertight integrity and freeboard in the MODU Code and Part B of the IS Code are mandatory and the operator must comply with them. Watertight subdivision (2) The operator must ensure that the floating platform is designed with sufficient watertight subdivision to ensure preservation of reserve buoyancy and damage stability under all foreseeable conditions. Load line certificate (3) The operator must ensure that a floating platform meets the following requirements: (a) it must hold an International Load Line Certificate or an International Load Line Exemption Certificate issued by the government of the state whose flag the platform is entitled to fly as required under Article 16 of the International Convention on Load Lines, 1966; and (b) it must be marked in accordance with the certificate. Watertight and weathertight appliances (4) The operator must ensure that the arrangement and specification of watertight and weathertight appliances complies with the measures in respect of watertight and weathertight appliances described in the certification plan. Water ingress (5) The operator must ensure that a floating platform is designed with systems and equipment that provide for operating, monitoring and indicating — both locally and at the ballast control stations — the opening and closing of the watertight doors and hatches and for detecting and providing alerts of any water ingress into watertight spaces that are not designed to accumulate liquid. Port lights (6) The operator must ensure that the columns of a column-stabilized mobile offshore platform do not have port lights or similar openings.	CAPP clarification request: please clarify / confirm if the MODU Code requirements are intended to apply to non-drilling floating platforms; or if classification society rules / requirements may apply instead." It is noted that Part B of the IS Code contains "recommendations" (not mandatory criteria) per IMO. Please clarify / confirm if Part B is considered mandatory per the Regulations. Also, please clarify if classification society rules / requirements may apply in-lieu of the IS Code requirements.
142. Station-keeping An operator must ensure that a floating platform is equipped with a mooring system or a dynamic positioning system to ensure station-keeping of the platform within its operating limits.	
143. Mooring system design (1) An operator must ensure that the design of a mooring system is based on analysis and model testing to ensure (a) safety and the protection of the environment; (b) stability and serviceability of the floating platform; (c) integrity and serviceability of the mooring system components, including any related topside equipment; (d) integrity and serviceability of drilling risers, production risers, export risers or any other type of riser; (e) the redundancy of the components necessary to enable the floating platform to maintain its position with the loss of a single mooring component or, for a thruster-assisted mooring system, the loss of the most effective thruster or a single failure in the power or control system; (f) for a thruster-assisted mooring system, the survival of the floating platform in extreme meteorological conditions in the event of a power failure; (g) the movement of the floating platform from its position to avoid accidental events for which it is not designed; and (h) safe access and safe clearances with respect to subsea and surface components of the installation, any nearby installations, support vessels and evacuation systems. Excursion limits (2) The operator must ensure that the excursion limits of a floating platform are established based on the analysis and model testing required under subsection (1). Loss of station-keeping or failure (3) The operator must ensure that a floating platform has systems and processes to continuously detect loss of station-keeping or the failure of any mooring system component. Monitoring of mooring line tensions (4) The operator must ensure that mooring line tensions are monitored and kept within the mooring system's operating limits. Measures (5) The operator must ensure that measures are taken to ensure that the mooring system continues to perform in accordance with its design specifications, including (a) the periodic assessment of the system's condition; (b) the assessment of damage or suspected damage; and (c) arrangements for timely repair or replacement in the event of damage or deterioration.	CAPP clarification request: Classification Society rules allow for monitoring of mooring line integrity via alternative means to tension monitoring systems (such as unit position monitoring systems). It is proposed that the Regulations allow for alternative means of mooring line integrity monitoring (in lieu of tension monitoring) if considered acceptable by classification society requirements.
146. Disconnect system (1) An operator must ensure that a floating platform with a dynamic positioning system has a disconnect system capable of (a) planned disconnection in order to allow time to prepare risers and subsea flowlines for disconnection; (b) emergency disconnection in order to allow time to safely shut in wells and subsea equipment; and (c) reconnection in an orderly sequence and within the physical and environmental conditions described in the operations manual under paragraph 153(2)(d). Demonstration (2) The operator must periodically demonstrate by means of a trial or performance test that the disconnect system meets the requirements under subsection (1). Excursion limits exceeded (3) The operator must ensure that the emergency disconnection referred to in paragraph (1)(b) is initiated if the floating platform exceeds the excursion limits established under subsection 145(2).	CAPP clarification request: API recommends an emergency disconnect every 5 years, but does not recommend performing a disconnect on a live well. Can the periodic disconnect be simulated vs physical? CAPP clarification request: 146(2) - API recommends an emergency disconnect every 5 years, but does not recommend performing a disconnect on a live well. Can the periodic disconnect be simulated vs physical?
Wells	

161. Fail-safe subsurface safety valve (1) An operator must ensure that a completed development well is equipped with a fail-safe subsurface safety valve that can be operated from the surface. Requirements (2) The operator must ensure that the subsurface safety valve (a) is designed, installed, tested, maintained and operated to prevent uncontrolled well flow when activated; and (b) in the case of a completed well that is located where permafrost is present in unconsolidated sediments, is installed in the production tubing below the base of the permafrost. Fail-safe safety valve (3) The operator must ensure that a completed development well that has gas lift, injection or production capabilities in the A-annulus is equipped with a fail-safe safety valve on the A-annulus. Requirements (4) The operator must ensure that the fail-safe safety valve on the A-annulus is designed, installed, tested, maintained and operated to prevent uncontrolled well flow when activated.	CAPP clarification request:: are sections (3) and (4) also related to subsurface? Can A-Annulus safety valves be in the tree? Most if not all of East Coast Canada's current subsea field-producing assets do not have the provision to include such devices, and it would be a significant departure from the original development design approvals. Additionally, all wells would not align with NORSOK D-010:2021 Section 8.7.2 which states all gas-lifted platform wells shall have an annular safety valve. CAPP recommends revising the text to state " gas lifted platform wells shall be equipped with a failsafe safety valve to align with industry standards.
Monitoring of Installations, Wells and Pipelines	
165. Monitoring of systems (1) An operator must ensure that an installation is equipped with a central monitoring system in the main control centre to monitor all systems the failure of which may cause or contribute to an accidental event or waste. Management of associated systems (2) The operator must ensure that the alarm, safety, monitoring, warning and control functions associated with the systems that are monitored under subsection (1) are managed to prevent reportable incidents and waste. Affected persons informed (3) The operator must ensure that all affected persons are informed when a function referred to in subsection (2) is suspended and when it is returned to service. Suspension of related system (4) When a function referred to in subsection (2) is suspended or found to be impaired, the operator must ensure that the use of any related system is also suspended until (a) in the case of a function that is suspended, that function is returned to service; and (b) in the case of a function that was found to be impaired, measures are implemented to offset the risk of a reportable incident or waste.	CAPP recommendation: clarify what "waste" refers to i.e. waste streams? Note that not all overboard streams have analyzers (e.g. drains is monitored via manual sampling) to warn the Control Room Operator.
PART 10: Notice, Records, Reports and Other Information for Authorized Works and Activities	
General	
Geoscientific, Geotechnical and Environmental Programs	
182. Environmental report — programs ~~An operator must ensure that an environmental report that includes~~ the following documents and information is submitted to the Board within 90 days after the day on which a geoscientific program, geotechnical program or environmental program is concluded or suspended: (a) a description of the general environmental conditions under which the program was conducted and, if applicable, a description of ice management activities and non-productive time caused by meteorological or ice conditions; (b) a summary of environmental protection measures and actions taken to mitigate the effects of any reportable incident, as well as of their effectiveness and any adjustments made for their continued improvement; (c) a summary of program performance in relation to the environment, including with respect to the objectives established under section 4 to reduce risks to the environment; (d) a summary of any emergency response drills and exercises for the protection of the environment, including those that were completed in the context of implementing the contingency plan under section 12; and (e) any wildlife observation data recorded under ~~paragraph 177(1)(d).~~	CAPP Recommendation: The timeline to submit the environmental report is 90 days. Reporting under the current GGEG is 12 months for most of the reports and 6 months for marine and seabird observational data. CAPP recommends that the 90 days be changed to 12 months to align with final reporting under Section 183. For production projects, the timeframe to submit the environmental report is annually (Section 198). Our recommendation is why not 1 year, as for most other reports as 90 days is not a lot of time to gather all the data and submit reports.
Drilling and Production	

196. Well reports and other information (1) An operator must ensure that (a) a report in respect of a well is submitted to the Board within 21 days after (i) the day on which the well is abandoned, (ii) the day on which the well is suspended, if the suspension is planned to be for a period that is longer than 21 days, or (iii) the day on which the well is completed or recompleted; (b) if a well requires a workover or intervention, a well operation report is submitted to the Board within 30 days after the day on which the workover or intervention is completed; (c) a well history report for a development well is submitted to the Board within 45 days after the day referred to in subparagraph (a)(i), (ii) or (iii), as the case may be; (d) a well history report for an exploration or delineation well is submitted to the Board within 90 days after the day referred to in subparagraph (a)(i), (ii) or (iii), as the case may be; and (e) the actual cost breakdown of well operations is submitted to the Board within 90 days after the day on which a well is completed. Content of report (2) The report required under paragraph (1)(a) must describe the manner in which the well has been abandoned, suspended, completed or recompleted and must include a schematic of the well illustrating the nature and location of the plugs used to abandon or suspend the well or the equipment used to complete or recomplete the well. Required information (3) The reports required under paragraphs (1)(b) to (d) must contain a record of all operational, engineering, petrophysical, geophysical and geological information that is relevant to the well operation, including any problems encountered during the well operation and the results of any formation leak-off test or formation integrity test conducted under section 70. Impact description (4) The report required under paragraph (1)(b) must describe any impact of the workover or intervention on the performance of the well, including any effect on productivity, injectivity and the recovery of petroleum.	CAPP recommendation: Remove the requirement to provide estimates and actuals except in the case of a work commitment. CAPP clarification request: 196 (1) The reporting timelines are different and confusing and not clearly laid out. ie. 196(1)(a)(iii) 21 days, while 196(1)(c) 45 days. The repetitive nature of reporting i.e. report vs well history. Recommend using a table to clarify the different reports, minimum content, and timing of each report. Also, it is unclear how (a) and (c) overlap? 21-day requirement for a "report" but 45 for a well history report?
199. Annual production report An operator must ensure that, not later than March 31st of each year, an annual production report for a pool, field or zone is submitted to the Board that provides information on how the operator manages and intends to manage the resource without waste, including (a) for the preceding calendar year, details on performance, production forecast, reserve revision, reasons for deviations in well performance from forecasts in previous annual production reports, gas conservation resources, efforts to maximize the recovery of petroleum and the operating and capital expenditures, including the cost of each well operation; and (b) for the preceding calendar year, the current calendar year and the next two calendar years, capital costs and fixed operating costs for each well and field in a production project, variable costs, commodity prices and financial commitments in relation to the transportation of the resource, including by pipeline.	CAPP recommendation: Remove the requirement to provide the data on commodity prices and transportation costs as part of the Annual Production Report. Also, please clarify that a 3rd party price forecast would be an acceptable method of delivery. The regulator can access commercially available third-party price forecast information, should this be necessary to support this Annual Production Report Commodity forecasts are generally company-specific and proprietary. What is the intent of providing these two items within the Annual Production Report?
201. Compressor records An operator must ensure that a record containing the following documents and information is kept of the compressors referred to in subsection 83(2): (a) a demonstration, with supporting documents, that the continuous monitoring device has been calibrated in accordance with the manufacturer's recommendations such that its measurements have a maximum margin of error of ±10%; and (b) for each compressor, if its maximum flow rate limit under subsection 83(5) or (6) has been exceeded, (i) its serial number, make and model, (ii) the date on which the maximum flow rate limit was exceeded, (iii) the flow rate indicated by the continuous monitoring device when the maximum flow rate limit was exceeded, and (iv) a description of the corrective action that was taken and the dates on which it was taken.	CAPP clarification request: This section requires further discussion and clarification between CAPP, NRCan, and the Board to understand expectations with this section.

Fugitive emission records 202 An operator must ensure that a record is kept of the detection and repair of any fugitive emissions from an installation and that the record contains the following information in relation to each emission: (a) the date on which the emission was detected; (b) the type of equipment from which the emission was released and its location within the installation or identifier; (c) the means by which the emission was identified; and (d) a description of the corrective measures that were taken and the dates on which they were taken.	CAPP recommendation: The word "fugitive" is not referenced in the offshore Part B of the national methane regulation and fugitive should be removed from this section and the title changed to "leak repair records". From an offshore perspective, and during engagement with ECCC, this should be "leak repair records" vs "fugitive leak records as any leak on an offshore facility that is picked up by the gas detectors is reported. Must be differentiated from a leak that is picked up from a gas detector and needs to be tied into the gas detection system. It is a leak whether it is small or otherwise, it needs to be fixed and reportedCAPP recommends changing this to ~~gas~~ "leak repair records" to capture the capabilities of an offshore fire and gas detection system. CAPP also recommends referencing section 128 (9) Leak Repair in section 202 as follows: Leak repair records 202 An operator must ensure that a record is kept of the detection and repair of any ~~fugitive emission~~ leak from an installation in accordance with 128 (9). and that the record contains the following: information in relation to each emission: (a) the date on which the emission was detected; (b) the type of equipment from which the emission was released and its location within the installation or identifier; (c) the means by which the emission was identified; and (d) a description of the corrective measures that were taken and the dates on which they were taken.
203. Record retention period An operator must ensure that the records referred to in sections 200 to 202 are retained for five years after the day on which the record is created.	CAPP clarification request: For clarity and alignment with the national methane regulations, this requirement should apply to gas venting only.
SCHEDULE 2	
(Subparagraph 30(3)(b)(iii))	Several Sections in Schedule 2, which define the CA's SOW under NL OHS refer to verifications of equipment not related to Safety Critical Equipment or the prevention of major accidents. Examples include: •18 Subsection 57(1). However, paragraph (e) applies only with respect to the accommodations area being maintained in good repair •20 Paragraphs 58(3)(a) to (e). However, paragraph (a) applies only with respect to the requirement under paragraph 60(2)(a) concerning handwashing facilities and paragraph (e) applies only with respect to washrooms being maintained in good repair. •22 Paragraphs 60(2)(a) and (d). However, paragraph (d) applies on with respect to handwashing facilities being maintained in good repair. •24 Paragraphs 61(2)(a) to (c) and (e). However, paragraph (e) applies only with respect to showers being maintained in good repair. •28 Section 64. However, paragraph 64(d) applies only with respect to a dining area being maintained in good repair. •30 Paragraphs 66(b) and (c). However, subparagraph (c)(iv) applies only with respect to the waste receptacles being maintained in good working order.