

September 16, 2016

sent electronically – original to follow via regular mail

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1801 Hollis Street, Suite 700
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Dear Ms. Phillips:

# Re: CAPP Comments on the Atlantic Offshore Occupational Health and Safety Initiative Proposed Policy Intent for Phase 1 of the Atlantic OHS Regulations Dated July 13, 2016

The Canadian Association of Petroleum Producers (CAPP) is pleased to have this opportunity to provide comments on the Proposed Policy Intent for Phase 1 of the Atlantic OHS Regulations dated July 13, 2016. CAPP members have been operating in the Atlantic offshore region for almost fifty years and are committed to the safe and responsible exploration, development and production of Canada's petroleum resources. Our comments, provided in this letter and in the attached table, are founded upon our collective experience in Canada and around the world.

The following topics are addressed in this letter:

- Background OHS Regulation in the Offshore
- Performance Based Regulatory Approach
- Guiding Principles for Comments on Atlantic OHS Regulations
- Regulatory Overlap Passenger Transport
- The Limitations of Prescriptive Regulation
- CAPP Submission on the Transitional OHS Regulations of December 2015
- Industry Recognized Standards
- Performance and Risk Based Maintenance and Inspection
- Terminology and Definitions
- Regulatory Renewal Timeline and Consultation Process
- Conclusion

#### Background - OHS Regulation in the Offshore

The Transitional OHS regulations came into force coincident with amendments to the Canada-Newfoundland and Labrador Atlantic Accord Implementation Act and the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act (the Accord Acts). Prior to the Transitional OHS Regulations Operators were required to comply with conditions appended to operating authorizations that prescribed detailed requirements for workplace occupational health and safety. Both the Transitional OHS Regulations and the previous regime include a number of provisions that were either outdated or designed for onshore oil and gas operations and thus not applicable to offshore facilities. This has led to the current initiative to develop offshore specific OHS regulations and an opportunity to implement a regime that meets current and future needs.

### Performance Based Regulatory Approach

The Frontier and Offshore Regulatory Renewal Initiative (FORRI) has been developing Proposed Policy Intentions for a Framework Regulation under the Accord Acts. CAPP members have been actively participating in the consultation process for this regulation and we understand that the implementation date could be before or quite close to implementation of the Atlantic OHS Regulations.

It is anticipated that the Framework Regulation will apply to all offshore oil and gas exploration, development and production activities and it will be largely a performance based regulation to be accompanied by guidelines written by the offshore petroleum boards that describe a means to comply. This approach should result in fewer prescriptive requirements, allow for recognition of internationally accepted standards and recognize the Operator's safety management system as integral to safe operation.

Safety management systems are a requirement of the existing Drilling and Production Regulations and their effective implementation has contributed to a strong workplace safety culture and positive safety performance. This can be demonstrated by comparing metrics such as the recordable injury rate. Based on data published by the offshore petroleum boards, this rate for the offshore oil and gas industry is less than one-third of the provincial rates included in data published by the respective workers compensation agencies.

CAPP members are supportive of a performance based regulatory approach for the Atlantic OHS regulations for the following reasons:

- It is aligned with FORRI Framework Regulation approach;
- It is consistent with and allows for recognition of the safety management systems that are presently or will be necessary under the Framework Regulation in order to obtain and an activity authorization;
- It is consistent with other oil and gas jurisdictions and supports the efficient trans-boundary movement of drilling rigs and construction vessels;

- It recognizes that there will be changes in technology and standards and does not necessarily require revising regulations or developing deviation requests; and
- It reduces the potential for deviation requests which represent an administrative burden for operators and regulators.

#### Guiding Principles for Comments on Atlantic OHS Regulations

The CAPP submission on the Policy Intent Document for the FORRI Framework Regulation included a series of guiding principles that supported the comments. These guiding principles, which are equally applicable to the Policy Intent Document for OHS Regulations are listed below:

- Fair and transparent, creating competitive parity across competing jurisdictions;
- Science-based, and consistent with other reputable international jurisdictions, with a strong understanding of implications in practice;
- Clear, predictable and simple (practical) to administer, with clear and established process for review and withdrawal:
- ALARP (as low as reasonably practicable), reflecting the balance of risks and benefits;
- Balanced and efficient, recognizing the totality of policies and regulations on industry;
- Viable, with readily available and predictable compliance pathways;
- **Consistent**, with the overall objective of responsible development of Canada's frontier and offshore resources; and,
- Fostering an internationally competitive oil and gas industry that attracts capital investment.

### <u>Regulatory Overlap – Passenger Transport</u>

The 2014 OHS amendments to the Accord Acts introduced the concept of regulations under Part III.1 being applicable to passengers in transit to or from offshore installations. Transport Canada has regulations that also apply to safety of helicopter and marine transport. This overlap has led to uncertainty over which regulations apply for vessel and helicopter owners, contracting parties, crew and passengers. CAPP is seeking clarity and certainty regarding this area of overlap which is critical to the safety of offshore oil and gas activities.

#### The Limitations of Prescriptive Regulation

As stated in our Transitional OHS Regulation and FORRI Phase 1 and 2 submissions, prescriptive language can create barriers to the timely development and operation of projects. Dated and

prescriptive regulatory requirements that do not reflect the international and progressive nature of the offshore oil and gas industry continue to present a challenge to Atlantic offshore operations.

To overcome this, industry makes use of the 'Regulatory Query' approach to request a deviation or exemption to specific requirements. This approach involves significant resources for both the industry and the regulators. Over the past three years almost 400 deviation or exemption requests were submitted to the C-NLOPB alone. The majority of these originated with short term non-Canadian flagged construction type or seismic vessels and were related to the Transitional OHS Regulations. The large number of requests is an indication that the Transitional OHS Regulations do not reflect the international nature of the offshore oil and gas industry and the codes and standards that apply to the industry.

The C-NLOPB have stated in their approval of some of these deviation or exemption requests that, in spite of the provisions in the Accord Acts "For greater certainty, exemptions from part 111.1 Regulations made pursuant to the Accords Acts will no longer be granted after December 31, 2019." This statement, while concerning to industry and problematic for future offshore oil and gas activities, highlights the need to minimize the prescriptive content of the OHS Regulations.

A performance based international regulatory perspective is required to support the development of the OHS Regulation. This permits industry to utilize the internationally based resources and infrastructure, which are unique and technically complex in their function.

The regulatory query process typically contemplates internationally recognized standards and guidelines to demonstrate equivalency to prescribed regulations and standards, further emphasizing the fact that these international standards should be accepted through the performance based approach. This has been outlined in previous CAPP submissions pertaining to the Transitional OHS Regulations.

Where it becomes necessary for international vessels and installations conducting short term or seasonal operations to adopt Canadian or North American requirements the impact of this requirement extends beyond the substitution of equipment. There is also a competency matter when equipment is substituted or standards are changed as personnel have to be re-trained and competencies are then impacted. In addition, developed and implemented inspection, maintenance and management systems are impacted as well. Thus the net affect of forcing adherence to a Canadian or North American standard may not result in safer systems of work when considered in totality.

### CAPP Submission on the Transitional OHS Regulations of December 2015

CAPP encourages the OHS Steering Committee to revisit our December, 2015 submission that examined in detail the requirements for marine vessels and installations and proposed amendments to better reflect internationally recognized marine regulations and standards. To date, we have not had an opportunity to review with the OHS Steering Committee or the Technical Working Group the potential changes to the Transitional OHS Regulations. The submission highlighted that we could continue to have "transitional" regulations that require a "Marine Installation" to meet different standards than a "Marine Vessel" which does not seem logical in many instances. For example, requiring a "Marine Installation", whether it is mobile or not, to meet a different standard for lifejackets, immersion suits, etc. does not seem to be a reasonable approach as the expected performance standard for such equipment should be the same whether installed on a "Marine Installation" or a "Marine Vessel".

CAPP has proposed the inclusion of the phrase "as amended from time to time clause" when referencing some of the proposed revisions and additions. This phrase provides the flexibility necessary to ensure the recent and applicable standards are utilized.

#### *Industry Recognized Standards*

Section 201.13(1) "Operators code of practice" under the *Atlantic Accord* makes provision for an Operator under the direction of the chief safety officer to establish a code of practice in respect of occupational health and safety, or to adopt a code of practice in respect of occupational health and safety that is specified by the chief safety officer.

CAPP encourages that industry and the Boards jointly develop, publish and regularly update guidelines or standard practices for the provisions of the OHS Regulations. This collaborative approach involving the Workforce, Boards, industry, technical and service providers has been applied in Atlantic Canada with success in the development of well accepted guidelines and standard practice documents. Industry engagement during the guideline development process is essential to ensure that the entire regulatory renewal initiative will result in the most advanced and effective regime for stewarding Atlantic Canada's offshore oil and gas industry.

Other international jurisdictions such as the United Kingdom, maintain guidelines for their core oil and gas regulations and these guidelines frequently reference industry developed standards or other acceptable standards providing flexibility in the application of the regulations. Thus, by allowing flexibility, industry can take a more responsive approach to choosing the best methods or equipment available at the time, i.e. incorporating new technologies, techniques or work practices more rapidly. Subsequently, it is necessary that regulation and supporting guidelines contain minimal prescriptive

technical requirements. As stated previously, it is imperative that longstanding regulation such as the OHS Regulation and its supporting guidance be written to permit regulatory bodies and industry to readily adapt to change. CAPP has assembled a team that has been working with the Canada Newfoundland and Labrador (C-NLOPB) to develop a *Code of Practice for Transportation of Employees by Vessel to or from a Workplace in the Offshore Petroleum Industry - Newfoundland and Labrador* which will serve as a model for providing future guidance.

## Performance and Risk Based Maintenance and Inspection

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

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

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

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

Specifying the frequency of inspection in policy text does not necessarily lead to a higher quality state for equipment and facilities. CAPP proposes that policy intent state the desired outcome that stems from sound maintenance and inspection philosophy. Thus the frequency of the inspection and maintenance campaigns may be adjusted accordingly to meet the desired outcome. As such, the

prescriptive requirement to inspect facilities and equipment "annually, or more frequently..." is not considered good oilfield practice.

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

#### **Terminology and Definitions**

Lack of definitions for key terminology in policy intent documents limits the effectiveness of the review process. Similar concerns were raised by CAPP in our FORRI submission on the Framework Regulation and we were advised that for review purposes we should apply the definitions in the current regulations in their interpretation of the policy intent.

Not having the seen the proposed amendments to the Transitional OSH Regulations during the review of the Policy Intent Document seems out of step and has caused some uncertainty in the review process as it remains unclear as to whether previous comments have been incorporated.

CAPP encourages the OHS Steering Committee to ensure definitions are issued for review and interpretation prior to the development of draft regulatory language and guidance that may be based on an interpretation of terminology that differs from that applied in the review and comment process.

#### Regulatory Renewal Timeline and Consultation Process

The successful development of modern performance based regulation requires thorough consultation and review by all stakeholders as well as a reasonable timeline to ensure a successful outcome. In this context, CAPP has some apprehension regarding the regulatory renewal timeline and consultation process specifically pertaining to OHS Regulations.

Given that the OHS Regulation is anticipated to be in place for an extended period of time, the concurrent approach which consists of the development of policy intent documents; drafting regulatory language; and, eventual development of supporting guidance limits engagement by Industry for constructive review and input for each of these components and may not be conducive to the successful achievement of the project objectives.

CAPP strongly supports these regulatory renewal initiatives. However, given that development of the Atlantic Offshore OHS Regulation Initiative is now coinciding with the Framework Regulations it is imperative that the two working groups collaborate and share information to insure harmonization and consistency between the two regulations.

Furthermore, with the understanding that additional regulatory renewal initiatives are pending (for example Canadian Environmental Assessment Act and Air Emission Initiatives) CAPP would like to

highlight the need for effective planning in the engagement of stakeholders to ensure achievement of all regulatory renewal objectives.

#### Conclusion

The changes proposed by NRCan to amend the Transitional OHS Regulations in December 2015 was a very positive approach and will serve to moderate some of the compliance difficulties encountered by construction and seismic vessels prior to final OHS regulations in 2019. However, we are concerned that the feedback provided to the OHS Steering Committee proposing amendments to the Transitional OHS Regulations has not been fully considered as there has been no feedback provided indicating whether our comments have been reviewed and considered for incorporation in the final OHS Regulations.

We encourage the OHS Steering Committee to consider meeting with industry regarding the Transitional OHS Regulations prior to Gazette I later this year.

CAPP also encourages the OHS Initiative Steering Committee to embrace this opportunity to review and revise existing regulations and to invite industry to the table similar to the FORRI process. The FORRI meeting's with industry have been productive and is a model that should be applied to the OHS review process.

As stated in our previous OHS and FORRI submissions the time frames that have been established for reviewing documents; meeting to discuss; and, developing and providing commentary need to be lengthened for future phases and industry experts should be engaged by the OHS Technical Committee at critical junctures to fully explore how draft language could be applied. With the expected technical complexity of the subject matter to be covered in both FORRI Phase 3 in conjunction with Atlantic OHS Regulatory Initiative, we request that the policy intent documents be issued at least four weeks prior to the stakeholder meetings to allow our members to engage the appropriate technical expertise within their organizations to provide a meaningful review and feedback at the stakeholder meetings. We also request that the issuance of policy intent documents and deadlines for submission of comments be sufficiently staggered or separated to permit full and thorough stakeholder engagement and contribution.

Consideration should also be given within the OHS Regulation development process and its' technical working group for inclusion of technical experts from industry (e.g. engineering contractors) and/or certifying authorities as the inclusion of such experts would provide additional technical depth from practical industry experience.

We look forward to continued engagement with Natural Resources Canada, the Provinces of Newfoundland and Labrador and Nova Scotia and members of the Project Team as they develop the Occupational Health and Safety Regulations.

If you have any questions please do not hesitate to contact me at 709 724-4200.

Sincerely,

R. Paul Barnes

Manager, Atlantic Canada and Arctic

R. Paul Barres

Attachments

Section	Subsection	Draft Policy Intent Text	CAPP Comments
General	General	a) ensure that any equipment, components of equipment or components of a system are erected, installed, assembled, used, handled, stored, adjusted, maintained, repaired, inspected, serviced, tested, cleaned and dismantled in accordance with the manufacturer's specifications or instructions for the equipment, components or system; and, b) comply with and ensure compliance with the applicable standards for the equipment, components or system as specified in these regulations.  (2) Except as otherwise provided in these regulations, a person must use equipment, components of equipment or components of a system in accordance with:  a) the manufacturer's specifications or instructions for the equipment, components or system; and, b) any applicable standards for the equipment, components or system specified in these regulations	Rationale: Industry is moving away from prescriptive maintenance plans, and towards the use of risk based principles for inspection and maintenance of all equipment and specifically safety critical equipment. Operators include OEM requirements in developing this approach. As such, the prescriptive requirement to inspect all equipment "annually, or m+G25ore frequently" is not considered good oilfield practice.  Proposed Policy Text:  "1) Except as otherwise provided in these regulations, an employer must ensure that any equipment, components of equipment or components of a system are erected, installed, assembled, used, handled, stored, adjusted, maintained, repaired, inspected, serviced, tested, cleaned and dismantled in accordance with one of the following:  a) the manufacturer's specifications or instructions for the equipment, components or system; and comply with and ensure compliance with the applicable standards for the equipment, components or system as specified in these regulations; or,  b) in accordance with a maintenance plan which has been approved by the vessels Classification Society and/or Flag State."
General		2) (1) An employer must ensure that any equipment used is inspected a) by the user, before each use; and b) by a competent person, annually, or more frequently as specified in any applicable Part of these regulations.	Rationale: It is proposed that it is not always possible or warranted to check equipment prior to each use. There is concern that specifying inspection requirements in a prescriptive nature could dilute the importance of pre-use checks when they are indicated such as with personal fall protection equipment. Additionally, not all equipment requires annual inspection. There are often standards, best practices and OEM requirements that govern such frequency. Additional comments are included in the CAPP OHS Phase 1 Letter.  It is believed that the intent of this section is to cover hand tools that would be used to perform work on an installation. It is unrealistic to think that all equipment used on an installation is inspected prior to each use. Most equipment is designed and intended to be used as a complete system and in an "automatic" fashion and is essentially in service at all times although may not be called into action for any reason (i.e. duty fire pumps, emergency generator, etc). It is suggested that hand tools be specified within the policy text to prevent misinterpretation.  Proposed Policy Text:  2) (1) An employer, in respect of a workplace under its control, must ensure that tools used in the execution of work are inspected a) by the user, before each use; and,  b) by a competent person, as frequently as required or as specified in any applicable Part of these regulations.
General		3) Records of inspection, maintenance, repair and modification of equipment shall be kept by the equipment operator and a person inspecting and maintaining the equipment in accordance with Section XX (record retention section - to be developed and shared for comment at a later date).	Rationale:  Normal industry practice is for records of inspection, maintenance, repair and modification of equipment to be updated and maintained in the vessels electronic Planned Maintenance System. These records are readily available to equipment operators, but not necessarily kept with them (they can be printed from the system if needed). It is no longer standard practice to keep paper copies of these records onboard or with the operator at all times.  Proposed Policy Text:  "Records of inspection, maintenance, repair and modification of equipment shall be maintained onboard in hard copy or electronic format in accordance with Section XX (record retention section - to be developed and shared for comment at a later date). Records are to be readily available to equipment operators and persons inspecting and maintaining the equipment."

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General		The equipment manufacturer's operation manual and maintenance for each piece of equipment in use at the workplace shall be available at the workplace.	Rationale:  While manuals for major pieces of equipment are kept onboard in hard copy, it is normal industry practice for a library of manufacturer's operation and maintenance manuals to be kept and made readily available onboard the vessel. In addition, maintenance procedures and work orders, in accordance with class and statutory requirements (and considering manufacturer requirements) are generated by the planned maintenance system (see above comment to Clause 3). Maintaining am electronic library allows for simple management and navigation of manuals and other documents and facilitates the document management process more readily. Maintaining a large paper library onboard the vessel can lead to confusion and misplaced documentation. As it is no longer standard practice to keep paper copies of these manuals onboard. Also note the change in location of "manual" to address both operation and maintenance manual requirements.  Proposed Policy Text:  4) "The equipment manufacturer's operation and maintenance manuals for each piece of equipment in use at the workplace shall be readily available in hard copy or electronic format."
SANITATION AND FACILITIES	General Workplace Sanitation	5) Workplace must be kept free of grease, oil, tools, equipment, or other materials that may cause a hazard to an employee.	Rationale: It is understood that workplaces are required to minimize exposure to substances that may cause a hazard to an employee, however there are common situations where substances will be present in the course of performing work yet not represent a hazard. In the case of offshore drilling installations for examples the use of the terms "kept free" will be impractical as these workplaces will have grease, oil and other fluids present (examples drill floor, shaker house), as well as tools and equipment required for work scopes. Intent should be to prevent these substances from presenting a hazard to personnel.  Proposed Policy Text: 5) "Workplace must be maintained in a manner so as to mitigate hazards to personnel associated with grease and oil, equipment or other potentially hazardous materials."
SANITATION AND FACILITIES	General Workplace Sanitation	7) Each workplace must have an integrated vector management plan, including means of prevention, maintaining vector control inspection records and logs, and pesticide application logs.	Rationale: Requirements for vector management has not been an area of significant concern in the Atlantic offshore areas. In cases where there has been concern, and in consultation with various agents representing vessels and installations that were suspect, inspections were performed by pest control operators to confirm if intervention would be required to prevent the transmission of any vector borne disease.  It is proposed that requirements for the development of pest or vector management plans and procedures be risk based. Where there exists credible evidence that mobilization of a particular installation, vessel or equipment suggest there may be a problem, inspections or assessment are required to determine if additional precautions should be implemented.  Proposed Policy Text:  7) Where evidence indicates based on inspection or other indication, a vessel must develop and implement a vector or pest management plan to ensure appropriate controls are effected to mitigate any risk.
SANITATION AND FACILITIES	Waste Material	13) Waste material must be removed daily from the living accommodations.	Rationale: The proposed policy is highly prescriptive and is not reflective of certain wastes which do not represent a health and safety concern thus not required for daily removal. Example: daily is an appropriate frequency for removing food wastes, however it may not be necessary for removing recyclable materials (e.g. water bottles, office paper waste, etc.). Suggest the policy be worded to focus on maintaining clean living space at all times (reflecting good hygiene practices). Also, the policy as stated may create the potential for unnecessarily increasing the amount of waste disposed.  Proposed Policy Text:  13) Waste material must be removed from the living accommodations at a frequency that reflects good hygiene practice.
SANITATION AND FACILITIES	Waste Material	14) Waste material containers and equipment in living accommodations must be: a) maintained in good working order and in a clean and sanitary condition; b) leak proof; c) made of material that is fire-rated; and d) fitted with seals.	Rationale: This is a requirement applicable to an installation dining room and galley. It is not suitable in terms of the personal waste baskets located in the accommodation cabins or offices (these are small, open top waste baskets and not fitted with seals.)  Proposed Policy Text:  14) Waste material containers and equipment in the dining room and galley must be:  a) maintained in good working order and in a clean and sanitary condition;  b) leak proof;  c) made of material that is fire-rated; and  d) fitted with seals.

SANITATION AND FACILITIES	Washrooms	15) A minimum of one washroom must be provided at a convenient location for every group of not more than six persons who do not have a personal washroom.	Rationale: The policy reflects what is found under the Maritime OHS Regulations and may have been applied out of context, which is designed around voyages over 4 hrs in length with the intent that workers that are onboard should have a washroom. With Offshore vessels/installations, etc., this will not be an issue and should not require prescription for additional washrooms that are unnecessary and outside the original intent of this regulation.  Proposed Policy Text:  15) A sufficient number of washrooms available for on-shift personnel who cannot access their personal washrooms.
SANITATION AND FACILITIES	Emergency Eyewash Showers	23) Emergency washing facilities confirm with the requirements of the most recent version of ANSI/ISEA Z358.1, American Standard for Emergency Eyewash and Shower Equipment.	Rationale: It is proposed that additional language be incorporated in policy text to make provision for international or foreign flagged installations or vessel(s) that maintain acceptable emergency washing stations that have been approved by prudent jurisdictions or recognized authorities but will not be in strict compliance with the referenced Canadian or North American standard. Additional comments are included in the CAPP OHS Phase 1 Letter.  Also, it is believed the use of "confirm" should be replaced with "conform".  Proposed Policy Text: "Emergency washing facilities conform with the requirements of the most recent version of ANSI/ISEA Z358.1, American Standard for Emergency Eyewash and Shower Equipment "or, a recognized international standard which can be shown to be equivalent.
SANITATION AND FACILITIES	Potable Water	24) Every employer must provide potable water for drinking, personal washing and food preparation.	Rationale: Water used for personal washing does not need to meet potable water requirements. It is not unusual to have signage on vessels indicating that one should not drink the water from taps because it is does not fully meet potable water requirements. "Potable Water" is only required when the water is for consumption as drinking water or used in food preparation.  Proposed Policy Text:  Every employer must provide potable water for drinking and food preparation.
SANITATION AND FACILITIES	Potable Water	25) The employer shall develop a written potable water management program that addresses:  a) The potable water system to be used and materials acceptable under AWWA or the WHO standard on potable water; b) Onsite qualified water operator for implementing and daily operation of the plan and system; c) Maintenance and regular cleaning of the potable water system; d) Regular microbiological and chemical testing of the water by a certified Canadian laboratory; e) Ongoing monitoring of system, including daily residual readings, treatment device(s) operating, and ensuring that buildup of biofilms does not occur; f) Contingency plan developed and implemented in the event that water quality does not meet acceptable quality levels; g) Reporting the workplace committee any samples above the Canadian Drinking Water guideline; and, h) Retention of records in accordance section XX (record retention section - to be developed and shared for comment at a later date).	Rationale: It is agreed that World Health Organization (WHO) standard is a suitable standard for a potable water system.  An attempt at reviewing the AWWA guideline requirements was completed; however, there are 100+ AWWA standards (many of which are not likely applicable to an offshore vessel/MOU/installation). Without a clear/specific reference in clause 25 to which AWWA standards are applicable, the reference is not useful as it is unclear what the compliance requirements are.  In addition, if the intent of clause 25 is to provide drinking water in accordance with Canadian Drinking Water Guideline, requiring compliance with AWWA is not recommended as the impact of implementing AWWA on the ability to meet the Canadian Drinking Water guideline requirements is unknown. As such it is recommended that the reference to AWWA is removed from clause 25. The removal of this reference will have no effect on the quality of potable water produced as it will still be tested in accordance with Canadian Drinking Water guidelines (as per clause 25, d-h)  Proposed Policy Text:  "25) The employer shall develop a written potable water management program that addresses:  a) The potable water system to be used and materials acceptable under the WHO standard on potable water or an equivalent international standard;  b)"
SANITATION AND FACILITIES	Potable Water	27) If water is transported for drinking, personal washing or food preparation, only sanitary water containers must be used.	Rationale: Although the policy text implies that this requirement is applicable to portable, temporary containers, the text should be explicit to avoid misinterpretation so that it is not applied to fixed potable water tanks on vessels (i.e. supply vessels that transport potable water to offshore installations). Tanks onboard supply vessels, although used for transporting potable water are governed under class requirements subsequently this policy should not apply to those vessels, .  Suggest removing "for drinking, personal washing or food preparation" and adding "potable" at the beginning of the section.  Proposed Policy Text: "If potable water is transported in portable or temporary containers, only sanitary water containers must be used."

SANITATION AND FACILITIES	Changing Facilities	32) A changing facility must be provided by the employer and designed so that it: a) located adjacent to a washroom that is equipped with sufficient showers; b) Is of sufficient size to allow employees to change in and out of work clothing; c) Has sufficient sized lockers for each employee; d) Has sufficient capacity to allow for storage for gear belonging to off-rotation employees; and e) Provides for means of drying wet clothing.	Rationale: Under the description of "Changing Facilities" the intent is highlighted as ensuring separate laundry facilities for regular and work clothing to avoid contamination. This is neither practical nor realistic for offshore installations where space is a premium. Significant engineering and structural modifications would be required for existing installations. Thus it is suggested that the intent be clarified with particular focus on separate and designated storage facilities for regular and work clothing as is current practice.  (a) Normal practice for a marine vessel/MODU/installation is to have one wash basin and one shower for every six persons or less who do not have personal facilities (MLC 2006). If employees have personal facilities, than there is no requirement to have additional showers in the change room. On offshore vessels / MODU / installations, employees are provided with cabins which are fitted with bathrooms, showers, sinks and toilets (1 washroom per every 2 people in normal operations, 1 washroom per every 4 people under special circumstances such as production shutdowns). As offshore units exceed normal industry practice, it is recommended that the requirement for showers in the change room is modified to account for the fact that all personnel are provided with washrooms/showers in their cabins.  (d) Propose the removal of the reference to storage of off-rotation PPE as the intent should focus on storage facilities for those onboard. Off-rotation employees would have the ability to store their PPE on board; however, it is not necessarily stored in change rooms. It is not practical to expect the storage capacity for off rotation or adhoc staff PPE in designated change rooms on offshore vessels and installations where space is very limited.  Proposed Policy Text:  32) A changing facility must be provided by the employer and designed so that it:  a) Is located adjacent to a washroom that is equipped with sufficient showers, if no shower is provided in personal cabins;  b) Is of sufficie
SANITATION AND FACILITIES	Changing Facilities	34) The employer must provide a dedicated laundry facility for laundering work clothing.	Rationale: Policy 34 implies that additional laundry facilities are required to launder work clothing separate from regular laundry facilities and it suggested that there is no need to have separate laundry facilities. However, washers and dryers should be clearly designated for either work or street clothes, as offshore facilities operating in Atlantic Canada typically do not have separate facilities (separate laundry rooms). Thus this policy intent should apply to the laundry equipment, not the facility or space. It is more appropriate to have one laundry room with clearly designated washers and dryers for work and street clothing. Additionally, the general laundry facilities are normally close to the change/locker room and personnel do not launder their own clothing. This work is done by the catering staff.  Proposed Policy Text:  The employer must provide dedicated laundry equipment for laundering work clothing, that is separate from laundry equipment used for non-work or street clothing.
SANITATION AND FACILITIES	Contamination Control	38) An employee must not leave the work area wearing clothing contaminated by a hazardous substance, infectious or offensive materials.	Rationale: Policy 38 leaves uncertainty with regards to the definition or interpretation of work area and what constitutes a hazardous or offensive substance.  On offshore facilities, coveralls are required to be worn at all times when outside accommodations as mandatory PPE, and it is not permitted to remove coveralls at the worksite (they may only be removed in the accommodations areas, where the change rooms are located). Coveralls are routinely exposed to oil, grease, drilling mud and other products due to the nature of certain activities; such products may be considered hazardous under certain definitions, however this level of "contamination" would not be considered contamination that would prevent personnel from leaving the work location in order to return to the changing facilities (within accommodations) to remove coveralls prior to washing. All such areas are approved for wearing work clothing.  Proposed Policy Text:  Any employee while wearing clothing contaminated by a hazardous substance, infectious or offensive materials must not enter an uncontaminated area unless that area is designated as a work area or is intended for removing contaminated clothing.

#### Canadian Association of Petroleum Producers (CAPP)

SANITATION AND FACILITIES	Living Accommodations	40) In any living accommodation provided as sleeping quarters for employees, a) The minimum inner dimension of a bed or bunk must be 198cm by 80cm; b) a separate bed or bunk, that is not part of a unit that is more than double-tiered, must be provided for each employee; c) if the unit is double-tiered: i. the lower bunk or bed must be at least 30 cm above the floor; and ii. The upper bunk or bed must be placed approximately midway between the bottom of the lower bunk or bed and the ceiling. d) each bed must be constructed that it can be easily cleaned and disinfected; e) mattresses, pillows, sheets, pillow cases, blankets, bed covers and sleeping bags must be kept in a clean and sanitary condition; f) a storage area fitted with a locking device must be provided for each employee; and g) a reading lamp must be provided.	Rationale for Policy 40 (b)  CAPP propose that the policy text be stated more generally to simply indicate a separate bunk must be provided for each employee and remove the reference "is not part of a unit that is more than double-tiered"  Proposed Policy Text 40 (b): b) a separate bed or bunk must be provided for each employee;  Rationale for Policy 40 (h):  MLC applicability is based on whether or not the vessel/MOU/installations Flag State enforces it on the specific type of unit. Thus CAPP propose the addition of the following text as clause (h).  Proposed Policy Text for 40 (h): h) If a vessel/MODU/Installation is designed, constructed and maintained in accordance with MLC 2006, the sleeping quarter may be considered adequate."
			Rationale: Industry agree that under normal operating conditions, the preferred arrangement for personnel sleeping in living quarters is two (2) per cabin at any one time However, due to the limited capacity of offshore vessels/MODU/installations' accommodations coupled with their remoteness this becomes impractical during particular circumstances.  Offshore installations and facilities require mandatory maintenance periods (shutdowns) on a regular basis to conduct critical maintenance and modification work to maintain regulatory compliance and equipment integrity. This work cannot be completed while in normal operation due to its complexity and the inherent increased risk in safety. Personnel resources required to successfully prepare and complete such campaigns generally exceed that approved for normal operations. As a result, Operators request via the regulatory query process permission to temporarily increase staffing levels during special periods such as shutdowns, hookup and commissioning activities. These regulatory queries have been submitted repeatedly for quite some time. The Boards, Transport Canada and Certifying Authorities are notified of any significant change to the planned staffing proposal (Regulatory Query) in a timely manner.
SANITATION	Living		Furthermore, it is not only during these maintenance or shutdown periods where increases in personnel may occur, there have been circumstances where offshore

FACILITIES	Accommodations	42) The maximum number of employees steeping in one foom is two.	on occasion for personnel to be transferred to neighbouring installations or vessels while awaiting transport to onshore or other location.
			Industry also recommend that the policy intent text make provision for vessels/MODU/installations that meet Flag State requirements for the maximum number of personnel in sleeping quarters that differ from the stated requirements of the intended policy text. As an example, vessels regularly enter the Atlantic offshore areas to conduct short term contracts (anywhere from 2 days to 4 months). These vessels work internationally and comply with Flag state requirements in respect to sleeping quarter arrangements. It is impractical to expect these vessels to modify their sleeping quarters in order to meet Canadian requirements for short term contracts. There needs to be some accommodation within the proposed regulation that provides for this unique circumstance, otherwise vessels will no longer be available for contract and directly impacts the future development and necessary activities of the offshore industry.
			Proposed Policy Text: 42) The maximum number of employees assigned to a room is four, with the maximum number sleeping in that room at any time is two; except, a) Where extenuating and emergency circumstances require, special arrangements may be instituted subject to the prior written approval of the Board; or, b) Where the vessel/MODU/Installation is designed, constructed and maintained in accordance with requirements of the Flag State."
SANITATION AND FACILITIES	Living Accommodations	45) The employer shall ensure that living accommodations are cleaned at least once every day that it is used.	Rationale: The proposed policy is highly prescriptive and is not reflective of efficient and effective inspection and cleaning practices for living accommodations. Daily cleaning is very prescriptive and applies generically whether the space is occupied or not. It is recommended that the policy be worded to focus on maintaining clean living space at all times the space is occupied and necessary to maintain good hygiene practices.  Proposed Policy Text:  13) The employer shall ensure that living accommodations are cleaned at a frequency necessary to ensure suitability for occupancy and reflect good hygiene practice.
SANITATION AND FACILITIES	Food Prep, Handling and Storage	50) A person who is suffering from a communicable disease must not work as a food handler before being symptom free for a minimum of 48 hours.	Rationale: Policy 50 is very subjective in terms of what constitutes a communicable disease and symptom free. Suggest that a medical health professional be consulted to determine the health status of an individual where it is suspected that the person may be at risk of contaminating food due a communicable disease or other illness.  Proposed Policy Text: 50) A person who is suffering from a communicable disease as determined by a qualified health professional must not work as a food handler until the person is cleared to return to work by a qualified health professional.

			For Policy 57 (c)
SANITATION AND FACILITIES	Eating Areas	57) The eating area shall be: a) kept in a sanitary condition; b) of sufficient size to allow individual seating and table space for each employee using the area; c) provided with non-combustible covered receptacles for the disposal of food waste or garbage; and d) separated from any place where a hazardous substance may contaminate food, dishes or utensils.	Rationale: Regarding clause 57) c), SOLAS Ch. II-2, Reg. 4.4.2 states, "waste receptacles shall be constructed of non-combustible materials with no openings in the sides or bottom."  The purpose of this requirement is clear as it will mitigate the contents of the receptacle from igniting the receptacle itself (or vice versa). Normal marine practice is to have a metal (or other non-combustible material) bin, segregated for recyclables, which has small opening(s) at the top. All waste is contained, and the receptacle cannot ignite.  Clarification: Regarding clause 57) c) please clarify if the cover required for sanitary reasons or for ignition prevention, and what value of this cover provides?  Proposed Policy Text:  57 (c) "provided with non-combustible receptacles, with no openings in the sides or bottom, for the disposal of food waste or garbage"
SANITATION AND FACILITIES		Thermal Environment 58) Employers shall develop a thermal environmental program that includes: a) regular monitoring of heat and cold stresses, posting of warning devices and additional first aid measures; b) provision of PPE and/or special equipment and clothing; c) provision of screens or shelters; d) medical supervision, hot or cold drinks and acclimatization procedures; e) limited work schedules with rest periods; and f) other appropriate controls and measures.	Rationale: The existing text indicates mandatory requirements a) through e), while not all may be required to manage the risk. For example the provision of a screen or shelter on a ship may not be safe under certain conditions. The mandatory nature of the requirements is concerning.  The 'posting of warning devices' seems to indicate the need for signage in the workplace. As heat and cold stress is often a temporary condition, the posting of signage seems a very ineffective way to mitigate the risk when it exists. Signs can become loose objects in high wind conditions at sea. There are more effective means of communication than signs (such as reviewing a Job Safety Analysis with all workers prior to the start of work or where conditions change. Signs are one of the least effective means of communication of hazard in the longer term. The following changes to subsection 58 and 58(a) are recommended.  Proposed Policy Text:  58) Employers shall develop a thermal environmental program that includes applicable risk mitigations from the following measures:  a) regular monitoring of heat and cold stresses, posting of warning devices and additional first aid measures, or other effective means of communication to workers potentially exposed to heat or cold stress;
SANITATION AND FACILITIES		60) In living accommodations, the temperature and humidity must be maintained in accordance with the most recent version of ASHRAE-55 Thermal Environmental Conditions for Human Occupancy.	Rationale: International vessel/MOU/installations' which are designed and constructed outside of North America may not be in accordance with ASHRAE-55. As these regulations apply to mobile vessels/units which may enter Canada for a period of weeks to years, it is recommended that an allowance for acceptance of compliance an equivalent international standard in lieu of ASHRAE-55.  Proposed Policy Text: "In living accommodations, the temperature and humidity must be maintained in accordance with the most recent version of ASHRAE-55 Thermal Environmental Conditions for Human Occupancy; or, an equivalent international standard suitable for a marine installation in the intended operating location."

Equipment for the provision of an adequate thermal environment (e.g. electric/open flame heat sources, steam piping, etc.), or  Ensure protection is provided against all hot surfaces onboard a vessel/MOU/installation (e.g. machinery, boilers, and associated piping systems, etc.).  Rationale:  MLC 2006 refers to the national guidelines for the management of occupational safety and health for addressing "the effects of the extremely low or high temperature of any surfaces with which seafarers may be in contact". Similarly, United States OSHA regulations do not specify at what temperature surfaces should be protected to avoit contact.  SOLAS Ch II requires surfaces over 220 degree to be insulated; however, this is intended to mitigate ignition sources, rather than protect crew from contacting the urrface. Also, 220 degree is much too high a limit for protection of personnel. The DNV GL classification requirements for protection of employees from a high temperature source are also generic. DNV GL rules state that "Machinery, boilers and associated piping systems shall be so installed and protected as to reduce to a minimum any danger to persons onboard, due regard being paid to moving parts, hot surfaces and other hazards."  As the other relevant standards investigated by DNV GL do not explicitly state a temperature limit, if a temperature limit is to be chosen, it is recommended that further investigation is completed by a qualified Health and Safety Professional prior to setting the limit. Some standards/guidelines which may be of use are supported by the provision of Piping Systems, ANSI Al 3.1-1975, American National Standards Institute. New York, NY: American Society of Mechanical Engineers Preventing Burns from Insulated Pipes, Chemical Engineering, Vol. 88, No. 15 (July 27, 1981),	AND	Thermal Environment	shall be identified at the source and positioned or shielded to prevent contact by an employee, unless the exposed source is necessary for work processes and	• Ensure protection is provided against all hot surfaces onboard a vessel/MOU/installation (e.g. machinery, boilers, and associated piping systems, etc.).  Rationale:  MLC 2006 refers to the national guidelines for the management of occupational safety and health for addressing "the effects of the extremely low or high temperature of any surfaces with which seafarers may be in contact". Similarly, United States OSHA regulations do not specify at what temperature surfaces should be protected to avoid contact.  SOLAS Ch II requires surfaces over 220 degree to be insulated; however, this is intended to mitigate ignition sources, rather than protect crew from contacting the surface. Also, 220 degree is much too high a limit for protection of personnel. The DNV GL classification requirements for protection of employees from a high temperature source are also generic. DNV GL rules state that "Machinery, boilers and associated piping systems shall be so installed and protected as to reduce to a minimum any danger to persons onboard, due regard being paid to moving parts, hot surfaces and other hazards."  As the other relevant standards investigated by DNV GL do not explicitly state a temperature limit, if a temperature limit is to be chosen, it is recommended that further investigation is completed by a qualified Health and Safety Professional prior to setting the limit. Some standards/guidelines which may be of use are:  • Standard Guide for Heated System Surface Conditions that Produce Contact Burn Injuries (C 1055-92). American Society for Testing and Materials, Philadelphia, PA.  • Scheme for the Identification of Piping Systems, ANSI A13.1-1975, American National Standards Institute. New York, NY: American Society of Mechanical Engineers.  • Preventing Burns from Insulated Pipes, Chemical Engineering, Vol. 88, No. 15 (July 27, 1981),  Alternatively, clause 63 could be reworded to reflect the risk assessment and ALARP principal approach which is generally applied in the offshore industry. A suggestion on wording i
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SANITATION AND FACILITIES	Ventilation	Ventilation 65) An employer shall ensure that a) there is appropriate circulation of clean air; b) there is adequate ventilation that conforms with the most recent version of ANSI/ASHRAE Standard 62.1 Ventilation for Acceptable Indoor Air Quality and ACGIH Standard Industrial Ventilation: A Manual of Recommended Practice, as applicable; and e) impurities are made harmless and inoffensive in a workplace in accordance with standards established by ASHRAE and ACGIH, as applicable.	Rationale: Temporary local ventilation (such as for confined space entry or welding operations) is covered under the vessel/MOU/installation permit to work system.  It is reasonable for fixed platforms (e.g. Jackets, GBS, etc.) which are design and constructed specifically for operations in Canada, and for which Classification and Flag State requirements are not applicable, to be in accordance with the referenced North American Standards. However, internationally operated vessels/MOU's are likely to be designed, constructed and maintained in accordance with Classification requirements. These Classification requirements cover the ventilation systems and their ability to maintain acceptable working and living environment for the personnel and non-detrimental conditions for equipment and machinery; including but not limited to:  *Ventilation in hazardous areas and requires independent ventilation systems for hazardous and non-hazardous areas.  *Ventilation in accommodation; and, Ventilation in machinery spaces  Details of design and performance requirements of the above ventilation systems, along with other specific ventilation systems, and their components can be found in DNV GI. Rules for Ships and Offshore Standards (OS's). In addition, there are many international standards which cover the design and construction of ventilation systems. These include:  *ISO 8861 Engine-room ventilation in diesel-engined ships  *EN 12238 Ventilation for Buildings - Air Terminal Devices- Aerodynamic Testing and Rating for Mixed Flow Application  *ENV 12097 Ventilation for buildings - Ductwork - Requirements for ductwork components to facilitate maintenance of ductwork systems  It cannot be stated at this time that the above standards are the equivalent of the ventilation requirements in the Policy Intent Document, however, it is clear that there are other relevant international standards which should be explored for equivalency. At a minimum, it is recommended an allowance for conformance with Classification requirements to be a
SANITATION AND FACILITIES	Ventilation	71) Where possible, exhaust from an internal combustion engine operated indoors shall be vented to the outdoors.	Rationale: Policy 71 is not clear in its intended application. It is assumed that this is intended to ensure that permanent or temporary "non-mobile" internal combustion engines located indoors have their exhaust adequately ventilated. This would not be applicable to mobile equipment powered by an internal combustion engine (e.g. forklift). As such it is recommended that Clause 71 reworded to clarify the type of engines it is intended to cover.  Proposed Policy Text: "Where possible, exhaust from an internal combustion engine not fitted to mobile equipment is operated indoors shall be vented to the outdoors."  In addition it is recommended that an additional clause is added to cover mobile equipment powered by an internal combustion engine. The following wording is recommended:  "Where mobile equipment powered by an internal combustion engine is operated indoors or in an enclosed work area  (a) the engine shall be adequately serviced and maintained to minimize the concentration of air contaminants in the exhaust, and  (b) the work area shall be assessed to determine the potential for exposure of workers to harmful levels of exhaust components."

SANITATION AND FACILITIES		74) An employer shall ensure that a) the mechanical ventilation system i. including humidification equipment, is constructed and maintained to minimize the growth and dissemination of micro-organisms, insects and mites through the ventilation system; and ii. where reasonably practicable, is readily accessible for cleaning and inspection; b) a qualified person inspects and maintains all parts of a mechanical ventilation system, cleans all louvers and replaces or adequately cleans all filters at a frequency that is sufficient to protect the health and safety of employees; c) a record of all inspections, maintenance and cleaning of the mechanical ventilation system is i. completed by a qualified person who performs the work, and ii. readily available for examination by the occupational health and safety committee or representative; d) when mechanical ventilation is required, the ventilating fans are located to prevent recirculation of contaminated air; and e) measurements of the air volume of the mechanical ventilation system are taken at suitable intervals to ensure compliance with the minimum air volume requirements in accordance with the most recent version of the standards established by ASHRAE, ACGIH or other equivalent standard acceptable to the CSO.	Rationale:  1. CAPP propose that policy text be subject to review as there is uncertainty in terms of the intended application of the policy. It is not clear if policy text in intended for installed mechanical ventilation which are more permanent installations such as those for living quarters or accommodations or if the policy in intended for temporary mechanical ventilation which is applied for temporary work scopes (i.e. confined space entry). Additionally, we recommend the following modifications to the policy text:  Proposed Policy Text:  For 74 (b) suggest that the text be restated such that the function of the inspection, maintenance and cleaning of the ventilation system in general be designed to ensure the system maintains the air quality and volume requirements as per the applicable standards noted in clauses (e) and (f) as proposed below.  For 74 (c) (i) Recommend that the policy section just state that the applicable records be maintained and readily accessible. The individual who physically performs the work or task of cleaning and maintaining the system may not be responsible for the management of such records.  For 74 (c) (ii) Propose that the specific requirements for OHS Committee to have accessibility to these records is outside of the intended functions and role of the OHS Committee or Worker Representative. Typically, it is only in the investigation of any health or safety incident related to the ventilation system that such records may be of interest to the OHS Committee or Worker Representative.  As stated previously in our comments with the international nature of the offshore oil and gas industry it is clear that there are other relevant international standards which should be considered for recognition, substitution or equivalency. At a minimum, it is recommended an allowance for conformance with Classification requirements to be accepted. As such it is recommended that the following text is added as Policy 74 (f):  For 74 (e) use current policy text,  For 74 (e) were the ventilation sy
SANITATION AND FACILITIES	Ventilation	76) Recirculating air system shall conform to the most recent version of the applicable ACGIH standard or ANSI/AIHA Z9.7 Recirculation of Air from Industrial Process Exhaust Systems.	Rationale: International vessel/MODU/installations' which are designed and constructed outside of North America may not be in accordance with ACGIH standard or ANSI/AIHA. In addition, there are many different ACGIH standards (many of which are likely not applicable to an offshore vessel/MODU/installation). Without specific references or identification of the ACGIH standards that are applicable, the reference is not useful as it is unclear what the compliance requirements are.  Based on the above, it is recommended that an allowance is included in the regulation for acceptance an equivalent international standard in lieu of ACGIH standard or ANSI/AIHA.  Proposed Policy Text:  "76) Recirculating air system shall conform to the most recent version of the applicable ACGIH standard or ANSI/AIHA Z9.7 Recirculation of Air from Industrial Process Exhaust Systems, or an equivalent international standard suitable for a marine installation in the intended operating location."
LIGHTING		This Part does not apply to marine installations and structures when exterior lighting levels may create a hazard to navigation.	
LIGHTING		82) The automatic emergency lighting system must be: a) inspected and tested monthly and maintained in accordance with manufacturer specifications; and b) tested annually to determine whether the units provide lighting for a period equal to the design criteria.	Rationale: Installations have comprehensive emergency lighting maintenance programs that ensures continued integrity/function. Suggest reference to OEM recommendations be removed, as operator practice may be more rigorous than OEM requirements, and/or provide flexibility for maintenance that reflects best industry practice.  Proposed Policy Text: 82 (a) inspected and tested at a frequency that ensures the continued integrity of the lighting systems
LIGHTING		83) Handling, storage and disposal of lighting components bulbs shall be in accordance to manufacturers' instructions.	Rationale: Policy 83 is overly prescriptive and may not represent current best practice for storage and disposal (e.g. disposal of bulbs using bulb eater and hazardous waste practices may not be referenced in OEM recommendations). Suggest policy reflect requirement to ensure handling, storage and disposal of bulbs do not present a hazard to personnel.  Proposed Policy Text: 83) Handling, storage and disposal of lighting components bulbs shall be conducted in a manner so as not to present a hazard to personnel

LEVELS OF SOUND		in accordance with the most recent version of CSA Z107.56 Procedures for the Measurement of Occupational Noise Exposure; b) the employer shall first take appropriate action to implement control measures to reduce noise to permissible levels;	Rationale: 86 c) As previously noted there are other relevant international standards which should be explored for recognition, substitution or equivalency. At a minimum, it is recommended an allowance for conformance with Classification requirements to be accepted.  86 d) Recommend revising policy 86 (d) to encompass permanent or regular rotation offshore employees only. The requirements for audiometric testing to be replicated every two years as required under this policy should not be applicable for visitors or personnel that are engaged in short temporary work or projects.  Proposed Policy Text: c) where it is not practicable to reduce the noise to permissible levels or to isolate employees from the noise, the employees shall wear personal protective equipment that meets the requirements as set out in accordance with the most recent version of CSA Z94.2 Hearing Protection Devices - Performances, Selection, Care and Use; or a recognized equivalent international standard suitable for a marine installation in the intended operating location."  d) audiometric tests for permanent or regular rotation employees on an biennial basis, or more frequently as recommended by an audiologist or occupational physician;
LEVELS OF SOUND		91) An employee must not be exposed in sleeping quarters to a level of sound of more than 70dB.	Rationale:  It is agreed that a limit on sound exposure level is needed in the sleeping quarters; and 70dB seems reasonable. However, there are unavoidable special circumstances where compliance may not be possible despite mitigations to lower sound levels. For example, operations such as running/recovering mooring lines, jarring, etc., will lead to higher than normal sound levels for limited and defined intervals of time. During such operations, it may not be feasible to reduce the sound levels in the sleeping quarters below 70dB. As such, an allowance for these extenuating circumstances is needed in clause 91.  DNVGL Comfort Class (Rules for Ships Pt. 6, Ch. 8) provides requirements for noise levels, vibration levels and other criteria onboard marine vessels. While Comfort Class is a voluntary notation (i.e. non-mandatory), it is a relevant industry standard which is often followed by international vessels entering Canada. Comfort class allows for dispensations from certain requirements in special circumstances if it is documented that compliance will not be possible despite relevant and reasonable technical reduction measures.  It is recommended that a similar approach is adopted in Clause 91 to account for operations during which compliance will not be possible despite mitigations to lower sound levels.  Proposed Policy Text:  "An employee must not be exposed to a level of sound of more than 70 dB in sleeping quarters. Dispensation may be granted under the safety management system for special operations of a limited and defined time interval where compliance will not be possible despite relevant and reasonable technical reduction measures."
CONFINED SPACE	Confined Space Management Program	Confined Space Management Program  94) Employer must develop, establish, implement and maintain a confined space management program in accordance with this section.	Rationale:  Most operators presently have existing programs for confined space management however, they may be included in their Permit to Work or Work Management System (PTW/WMS) or they may be singular documents in the form of a procedure or practice. The current text implies that a separate management program is required, thus it is recommended that the text be modified to ensure that it does not have to be a standalone document or management system.  Proposed Policy Text:  94) Employer must develop, establish, implement and maintain a documented process for confined space management. This information may be contained in the employers Permit To Work (PTW) or Work Management System (WMS) documentation.
CONFINED SPACE	Identification of Confines Spaces	96) An employer shall ensure a competent person evaluates the workplace to identify and record any confined spaces that exist.	Rationale:  Management system elements such as the permit to work system and job safety analysis processes include provision to assess each work task (by a competent person) to identify specific hazards that require mitigation which include determination if it is a confined space. For example, a low lying area may be deemed a confined space when venting nitrogen in an adjacent area (while it may not normally be a confined space). It is more effective that the Permit to Work system require these assessments on an ongoing basis as opposed to maintaining a master list that is periodically updated.  Proposed Policy Text:  96) An employer shall ensure that within the facility permit to work or control of work system a competent person evaluates the work space during the job planning process (prior to the performance of work in that space) to identify and record if it is considered a confined space.

CONFINED SPACE	Identification of Confines Spaces	97) Employer must identify all confined spaces by means of visible identifier that: a) identifies it as a confined space; b) indicates access is restricted to authorized personnel only; and, c) warning that a danger exists.	Rationale:  Most confined spaces are sealed vessels which would be require extensive preparations prior to the removal bolted blind flanges or covers to make accessibility possible. Under normal operation, entry would be impossible as the confined space is inaccessible. In any cases where entry is possible, then this requirement should apply. Otherwise every process vessel and tank in the plant or facility will require this signage at all times. Too many signs is a blowing object hazard and contributes to 'sign blindness'  Proposed Policy Text:  97) While a confined space is readily accessible to personnel, the Employer must identify the confined spaces by means of visible identifier that: a) identifies it as a confined space; b) indicates access is restricted to authorized personnel only; and, c) warning that a danger exists.
CONFINED SPACE	Identification of Confines Spaces	98) Employer must re-evaluate the workplace for confined spaced every three years or as a result of changes in the workplace that may have created new confined spaces, or eliminated ones, and record any changes from the last evaluation.	Rationale:  The maintaining of a master list of all confined spaces and updating the list every three years is not consistent with the methodology applied in the Atlantic offshore industry for managing confined spaces and may not be an effective approach to managing the risk of personnel entering a confined space. The offshore industry apply various hazard identification and risk assessment techniques in the job or task planning phase to eliminate or minimize any risk associated with the work and includes the identification of any confined space. The circumstances within various spaces on offshore facilities may change on an ongoing basis, thus the facility work management process demands that each task is assessed to determine if confined space entry protocols are required. In this case the capturing of a new confined space in the facility work management process must be identified in the change management process for the facility.  Proposed Policy Text:  98) Employer must evaluate the workplace for confined spaces as part of the change management of any workplace facilities / modifications and ensure that this is addressed in the work management process.
CONFINED SPACE	Procedures	103) (1) Where a confined space exists in the workplace, the employer shall, in consultation with the health and safety committee or health and safety representative, establish written work procedures that are to be followed by a person entering, exiting or occupying a confined space.  (2) Written work procedures must specify:  a) The required controls specific to the known hazards or the task to be performed;  b) The standard protective equipment that is to be used by every person who is entering a confined space;  c) Retrieval equipment to be worn by every person entering a confined space, including the type of full body harness to be worn, where practicable;  d) Additional rescue equipment, including a yoke and adequate means to extract an unconscious person;  e) The processes for preventing entanglement of life-lines and other equipment where one or more employees are entering the confined space;  f) Equipment to be used for atmospheric testing, including calibration requirements; and,  g) All training requirements for entrants, attendants and rescuers.	Rationale:  Section 103 (1) Requiring the review and input of the health and safety committee or worker representative in development of procedures is outside of the mandate of the OHS Committee or Worker Representative. It may also be outside of the knowledge and expertise of those who make up these Committees. In addition, OHS Committee member and Worker Representatives have roles and responsibilities as part of their regular assigned jobs with membership of the Committee or as Representative being a volunteer position. This should be kept in mind when including prescribed requirements within the regulations as there are already systems in placed to ensure worker involvement, including job planning, risk assessments, permit preparations, etc  The purpose of a harness while in a confined space (other than if there is a fall hazard in the space) is for rescue and can therefore be covered under the rescue equipment line item. If a harness was required for fall protection that would be captured under the line item for PPE required for the work inside of the confined space. With regards to the process for preventing entanglement of lifelines, this would be captured under the line item referring to the hazards or task to be performed. A wording revision to include "taking into consideration the equipment being used" would sufficiently cover a lifeline entanglement hazard if present. In addition, any reference to specific rescue equipment (i.e. yoke) should be removed as all rescue equipment used is specific to the type of rescue and the configuration of the space involved. The following changes are recommended:  **Proposed Policy Text:**  (1) Where a confined space exists in the workplace, the employer shall establish written work procedures that are to be followed by a person (s) entering, exiting or occupying a confined space.  (2) Written work procedures must specify:  a) The required controls specific to the known hazards or the task to be performed, taking into consideration the equipment being used;  b) Th

CONFINED SPACE	Procedures	104) Notwithstanding Section 103, the use of a lifeline and/or full body harness is not required where an obstruction or other condition makes its use unsafe but, in that case, an employer shall implement procedures to ensure the safety, and safe removal, of the employee.	Rationale: The revised policy text is an effort to create better flow yet maintain the same intent as originally written. It is agreed that a lifeline will not always be able to be used because of hazards present, however if this is the case, then employers must ensure that adequate rescue equipment and processes are in place to continue to ensure the safety, as well as safe retrieval of any employee who may enter a confined space without a lifeline.  Suggest rewording based on changes suggested in section 103  Proposed Policy Text: "Where the use of a lifeline and/or full body harness is considered a hazard and not used as rescue equipment, an employer shall implement alternate controls to ensure the safety, and safe removal, of the employee"
CONFINED SPACE	Procedures	105) Employer must re-evaluate the procedure every three years or upon any structural or equipment modifications, or change in purpose, and record any changes from the last evaluation.	Rationale: The section as written requires a review every 3 years which is very prescriptive. It is suggested that the prescriptive 3 year requirement be removed here, with the focus on structural or equipment modifications and changes in processes. The review cycle should not be prescriptive as it should align with the Operators approved Management System and document review processes. Additional comments pertaining to the Operators Management Systems have been included in the CAPP FORRI Phase 1 submission.  Proposed Policy Text: "Employer must review the procedure at predetermined intervals as per its document management system as well as upon any structural or equipment modifications, or change in purpose that may affect confined space processes. Any changes from the last evaluation must be recorded"
CONFINED SPACE	Procedures	106) In consultation with the workplace committee or health and safety representative, the employer shall develop written emergency procedures to be followed in the event of an emergency in or near the confined space, on all of the following:  a) a plan for responding to emergencies and preventing or mitigating any illness or injury as a result of potential hazards that might be encountered; b) the methods for communication, including: i. between entrants and those outside the confined (attendants and rescuers); ii. signaling evacuation; c) a plan to rescue an employee following an accident or emergency in the confined space; d) identification of the necessary resources to implement a plan under subsection 106 (a) & (b) effectively, including a determination of whether more than one person is required to be present outside a confined space during its occupancy by any person; e) provision to ensure immediate evacuation of the confined space when an alarm is activated or there is any significant, unexpected and potentially hazardous change in the concentration, level or percentage referred to in section 112; f) means by which a written emergency procedure would be initiated;	Rationale: Section 106 requires the consultation and input of the OHS Committee or Worker Representative in development of emergency procedures. As stated previously this expectation is considered to be outside of the mandate of the OHS Committee or Worker Representative. It may also be outside of the knowledge and expertise of Representatives and Committee members and Worker Representatives have roles and responsibilities as part of their regular assigned jobs with membership of the Committee or as Representative being a volunteer position. Health and safety documentation within the management system is readily available to OHS Committees and Work Representatives for review, thus it is unnecessary for explicit statements within policy text or regulation for the OHS Committee or Worker Representative to be intimately involved in the development of the health and safety management system as this is the employers responsibility.  Proposed Policy Text:  106) The employer shall develop written emergency procedures to be followed in the event of an emergency in or near the confined space, on all of the following:

		g) communicating with other employees in the vicinity and other personnel, as appropriate; h) The protective equipment and emergency equipment to be used and/or worn by a person who takes part in the rescue of a person from the confined space or in responding to other emergency situations in the confined space; and, i) Regular conduct of emergency response drills and exercises.	
CONFINED SPACE	Training	107) An employee shall not work in a confined space unless he or she has completed a confined space training program that includes, at minimum, the following components:  a) This section of the regulations; b) Definition of confined spaces with identification of confined spaces and their hazards; c) Hazard assessment; d) Confined space work permit systems and standard procedures; e) Familiarization with the operation of gas monitoring equipment; f) Atmospheric testing; g) Methods to safely ventilate and/or purge confined spaces; h) Isolation requirements for substances, energy and equipment; i) Duties of supervisors and entrants; j) Confined space safety watch responsibilities; k) Entrant tracking; l) Overview of rescue and emergency response (including rescue plan); m) Emergency Escape Breathing Devices; n) Identification and use of appropriate confined space PPE and rescue equipment; o) Hot work and other hazardous activities.	Rationale:  CAPP propose that the training requirements for confined space entry is highly prescriptive and limits industry ability to adapt and change training programs to become more effective and consistent with advancing approaches to confined space entry. CAPP has developed an industry standard practice outlining the training and qualifications for offshore personnel which includes specific training and competency requirements for confined space entry. Thus CAPP propose that the policy text state the performance requirements for confined space training and/or formally recognize and accept industry standard practice, which will allow continuous improvement and updating of confined space training requirements. The current prescriptive text does not permit the continued improvement of training programs and techniques.  Proposed Policy Text:  "An employee shall not work in a confined space unless he or she has completed a confined space training program that meets industry training program best practice".
CONFINED SPACE	Training	110) Any person tasked with emergency response and rescue from a confined space shall be trained in: a) Applicable emergency response training; b) Emergency response procedures; c) Meet or exceed the requirements under Sections 107 and 109; d) Advanced level of first aid training; and e) In addition, an employee who is required to enter a confined space shall be provided training in the specific hazard(s) that have been identified as potentially existing within the confined space they are about to enter.	Rationale: Advanced first aid training (five day course) is a requirement of the medical response team members onboard offshore facilities, which would be separate members from the confined space team. The confined space rescue team should be trained in emergency first aid, as this would be the level of first aid delivered inside a confined space prior to removal of an injured person. The priority of the confined space rescue team is to safely remove the injured person from the confined space, after which point advanced first aid can be provided. The emergency response procedures of Atlantic Canada's Operators require that advanced medical aid responders be readily available outside the space, and not working within a potentially hazardous environment.  Proposed Policy Text:  d) Emergency First Aid; and

CONFINED SPACE	Tests	114) Atmospheric testing should be conducted, and results recorded, a) Before entry into a confined space; b) After an interruption in the work procedures; c) At appropriate intervals; and d) Shall not exceed 12 hours being testing.	Rationale: For 114 (a): Suggested wording change to reflect that testing should be conducted prior to "initial entry and on re-entry" into the confined space.  For 114 (d): Propose wording change is to provide greater clarity to ensure testing is conducted at a minimum of every 12 hours while work scopes are ongoing within the space. There is no need for atmospheric testing if the space is not occupied.  Proposed Policy Text:  114) Atmospheric testing should be conducted, and results recorded,  a) Before initial entry and on re-entry into a confined space; b) After an interruption in the work procedures; c) At appropriate intervals; and d) At intervals not exceeding 12 hours while work is ongoing within the space.
CONFINED SPACE	Tests	115) The employer shall ensure the confined space is continuously monitored and that the atmosphere remains at all times in compliance within Section 112.	Rationale:  Recommend that word "continuously" be removed from policy statement: While most gases associated with confined space hazards can be (and are) continuously monitored (O2, CO, flammable gases, H2S), certain types are only regularly measured with single "point in time" methods and can't provide continuous readings (e.g. certain benzene detectors in offshore). These gases can be measured periodically while personnel are in a space, but not continuously.  Personnel may also safely perform work in a confined space where the TLV is exceeded provided that adequate respiratory protection is provided to mitigate against the hazard. This should be reflected in the policy statement.  Proposed Policy Text:  115) The employer shall ensure that atmospheric monitoring is conducted while personnel are within the confined space and that the atmosphere remains at all times in compliance within Section 112, unless personnel are using PPE that provides for acceptable breathing air.
CONFINED SPACE	Tests	117) Tests shall be performed by a qualified person who has been adequately educated and trained in:  a) The proper use of testing and monitoring equipment;  b) Limitations of the equipment;  c) Properties of the potential contaminants to be tested; and  d) Any other relevant information specific to the task at hand.	Rationale: Under current standards practice for offshore Atlantic Canada, to be considered qualified to complete atmospheric testing, the person must be adequately trained as an authorized gas tester. The CAPP TQSP outlines the comprehensive training and qualifications requirements for persons assigned to perform these atmospheric gas tests.  CAPP propose that the policy text state the performance requirements for atmospheric gas testing and/or formally recognize and accept industry standard practice, which will allow continuous improvement and updating of the required qualifications.  Proposed Policy Text:  117) Tests shall be performed by a competent person who has been adequately educated and trained in performance of atmospheric gas testing for confined space entry.
CONFINED SPACE	Tests	118) Equipment used in testing and monitoring shall be calibrated, maintained and used according to the manufacturer's instructions, and shall be bump tested, at minimum, every 12 hour shift.	Rationale:  Specialized gas detection devices or instrumentation used for the measurement of particular airborne contaminants are not designed for bump testing, thus the requirement would not apply to all atmospheric testing devices. Examples of equipment which cannot be bump tested include: Detection Tubes Devices (Draeger Tubes), Photoionization Detectors and Volatile Organic Compound Meters. Normally bump testing is recommended by the OEM for O2, CO2, LEL and H2S.  Proposed Policy Text:  118) Equipment used in testing and monitoring shall be calibrated, maintained and used according to manufacturers instructions; and, where the instrument requires, shall be bump tested at a frequency necessary to ensure it's proper function.

CONFINED SPACE	Entering	119) The employer shall ensure: a) the opening for entry and exit is sufficient to allow safe passage of a person wearing personal protective equipment; b) mechanical equipment in the confined space is i. disconnected from its power source, and ii. locked out and tagged; c) pipes and other supply lines whose contents are likely to create a hazard are blanked off, or otherwise locked out or controlled to ensure that no contents are inadvertently discharged into the confined space; d) measures have been taken to ensure that, where appropriate, the confined space is continuously ventilated; e) liquid in which a person may drown or a free-flowing solid in which a person may become entrapped has been removed from the confined space; f) adequate explosion-proof illumination is provided where appropriate; g) a source containing a hazardous substance leading to the confined space is safely and completely disconnected or blanked; h) Adequate barriers are erected to prohibit unauthorized entry; i) PPE and emergency equipment identified in section 103(2)(b) are provided as close as reasonably practicable to the entrance to the confined space.	Rationale:  Section 119 regarding mechanical equipment inside of a confined space should be clarified as mechanical equipment may be required inside of the space to execute a scope of work. Section 119 (b) does not differentiate between fixed and temporary mechanical equipment. Temporary mechanical equipment used in the execution of the work must be in good condition and verified prior to entry.  Also, sections 119 (c) and 119 (g) contradict each other. (c) requires, blanking off, or otherwise locked out or controlled whereas (g) requires disconnection of blanking off. Suggest a wording change to (c) to better align and remove (g) altogether. The term "blanking off" may be misinterpreted. Suggest replacing the word with "blinding" to better align with industry standards  Proposed Policy Text:  119) The employer shall ensure:  119) The employer shall ensure:  120) The employer shall ensure:  131) The opining for entry and exit is sufficient to allow safe passage of a person wearing personal protective equipment;  132) Permanent mechanical equipment that could present a hazard in the confined space is  133. Li disconnected from its power source, and it locked out and tagged;  233. Temporary equipment to be taken into the space is to be inspected, tested, and free of defects prior to entry into a confined space.  134. Any source, pipe and other supply lines whose contents are likely to create a hazard are blinded, disconnected, or otherwise locked out or controlled to ensure that no contents are inadvertently discharged into the confined space;  235. Proporary equipment to be taken to ensure that, where appropriate, the confined space is continuously ventilated;  135. Iquid in which a person may drown or a free-flowing solid in which a person may become entrapped has been removed from the confined space;  249 adequate explosion-proof illumination is provided where appropriate;  141. Adequate barriers are erected to prohibit unauthorized entry; and, ip PPE and emergency equipment identified in section 103(2) are pr
CONFINED SPACE	Precautions Prior to Entering	122) The employer shall ensure that the respiratory protective equipment referred to in section 121 is in accordance with the most recent version of CSA Z94.4 Standard and for escape from IDLH atmospheres the SCBA or Escape SCBA shall have a rated Service time in excess of the anticipated time needed to escape.	Rationale:  1) CSA 294.4 aims to provide a baseline for the selection, use and care of respiratory protective devices. It is not a design or performance standard for respirators. Currently clause 122 reads as though CSA 294.4 covers the design and performance specifications of a respirator. As such, it is recommended that this section is reworded to ensure the intent of CSA 294.4 is clear to the reader.  2) While many foreign vessel/MODU/ installations do not specifically follow CSA 294.4, they do operate under a permit to work system and a planned maintenance system. These systems, along with other aspects of the safety management system, capture the intent of CSA 294.4 as it relates to the selection, use and care of respirators. Also, it is normal practice for foreign flagged vessel/MODU S/installations entering Canada to carry respiratory protective equipment designed, constructed and maintained in accordance with the flag state (i.e. SOLAS/MODU Code, including references to Fire Safety Systems) and recognized national standards (e.g. EN, ISO, etc.). It is recommended that this clause is reworded to include the allowance for a vessel.MOU/installation to comply with the following:  **selection*, use - Safety Management Systems, recognized international standards,  **care and maintenance - Flag State (SOLAS/MODU Code)  Specifically, as the majority of vessels entering Canada come from Europe, an allowance for compliance with EN 529:2005 – Respiratory Devices - Recommendations for Selection, Use, Care and Maintenance should be included. EN529 is the most commonly seen alternative standard and provides an equivalent level of safety to CSA 294.4.  Proposed Policy Text:  "The employer shall ensure that procedures for selection, use and care of respiratory protective equipment referred to in section 121 are:  a) in accordance with the most recent version of CSA Z94.4, EN 529 or equivalent recognized international standard, and for escape from IDLH atmospheres the SCBA or Escape SCBA shall have a rated service time

			v. for escape from IDLH atmospheres the SCBA or Escape SCBA shall have a rated service time in excess of the anticipated time needed to escape."
CONFINED SPACE	Precautions Prior to Entering	124) Respiratory protection shall be selected, used, maintained and tested in accordance with the most recent version of CSA Standard Z94.4, Selection, Use and Care of Respirators.	Rationale: Clause 122 seems to have the same intent as clause 122; to ensure that respiratory equipment is selected, used and cared for according to CSA Z94.4. If so, clause 124 can be removed as it is redundant.  In addition, the above Proposed Policy Text for clause 122 also covers the intent of clause 124.  Proposed Policy Text: Remove clause 124
CONFINED SPACE	Entrance Into Confined Space	Entrance Into a Confined Space 126) The employer shall ensure that one or more attendants are: a) assigned the employees who are entering the confined space; b) stationed outside and near i. The entrance to the confined space; or ii. Where there is more than one entrance to the confined space, the one that best allows the attendant to perform his or her duties; iii. And shall ensure effective record keeping of persons in and out of the confined space c) in continuous communication with the employee using an appropriate means of communication provided with a device for summoning an adequate rescue response.	Rationale:  (a) Industry practice is to position one confined space attendant to the space, as a single point of contact for the workers within the space. Other personnel may be required (for moving materials into the space, as a standby emergency response resource etc.) however these would not be considered the attendant. Wording suggesting one or more may add confusion from an enforcement standpoint, in that it offers no clarity when greater than one attendant would be required.  (c) Suggested wording change for policy sub-section (c): the attendant must have the ability for continuous communication with persons in the space; however, in situations where radio contact is the established means of communication, it is not the practice to open the radio channel and keep it open for the entire entry. In these situations the entry plan for the space would establish the radio channel to be used by the attendant and the entrants. Regular radio checks would be performed at an established agreed frequency (e.g. every 10 minutes) for the entire period of the entry.  Proposed Policy Text:  Entrance Into a Confined Space  126) The employer shall ensure that an attendant is:  a) assigned to the employees who are entering the confined space;  b) stationed outside and near  i. The entrance to the confined space; or  ii. Where there is more than one entrance to the confined space, the one that best allows the attendant to perform his or her duties;  iii. And shall ensure effective record keeping of persons in and out of the confined space  e) provided with a means of continuous communication with the persons in the space and with a device for summoning a rescue response;  d) in regular communication with the persons in the space, as per the established plan for the confined space entry.
CONFINED SPACE	Entrance Into Confined Space	127) An attendant shall not enter a confined space and shall a) Not be assigned any additional duties beyond the duties outlined in (b) through (d); b) Monitor the safety of the employee in the confined space; c) Provide assistance to persons inside the confined space; d) Summon an adequate response where one is required.	Rationale:  It is important that the Attendant not be distracted from the task of monitoring the space and maintaining communication with Entrants. Clause c) as written could see the Attendant getting too involving in the work task if providing non-emergency assistance to the person(s) inside the space (e.g. obtaining and passing materials, etc.)  Proposed Policy Text:  127) An attendant shall not enter a confined space and shall a) Not be assigned any additional duties beyond the duties outlined in (b) through (d); b) Monitor the safety of the employee in the confined space; c) Provide emergency assistance to persons inside the confined space; d) Summon an adequate response where one is required.

		General Comment on Hot Work	CAPP is requesting clarification as to the particular regulation (s) that will apply for "Hot Work" activities on drilling and production facilities in the Atlantic offshore area. Sections 129-131 refer to hot work in confined spaces, which is only one example of where hot work may be required in the offshore. Hot work is regulated via the Petroleum Installation Regulations, and all operators have in place comprehensive health and safety management systems that include a Permit to Work system. This system describes the manner in which hot work is undertaken on the facility. With the understanding that FORRI Phase 3 will encompass Operations and Installations policy intent we emphasize the importance of ensuring a clear, performance oriented policy approach to conducting hot work, for both the Framework and OSH regulations. Further, there needs to be consistency of interpretation by each Regulator to ensure Industry confidence in the Canadian regulatory system as they make decisions to conduct work in any offshore jurisdiction in Canada.  We would like to highlight two of our guiding principles previously submitted to reinforce the important of developing consistent policy intent for the both the Framework and OHS Regulations:  *Science-based, and consistent with other reputable international jurisdictions, with a strong understanding of implications in practice; and,  *Clear, predictable and simple (practical) to administer, with clear and established process for review and withdrawal.
CONFINED SPACE	Hot Work	129) An employer shall ensure that an employee does not perform hot work in a confined space unless all of the following conditions are satisfied: a) In the case of an explosive or flammable gas vapour, the atmospheric concentration is less than 5% of the lower explosive limit, as determined by a combustible gas instrument, b) The atmosphere in the confined space does not contain, and is not likely to contain while an employee is inside, an oxygen content greater than 22.5%, e) The atmosphere is continuously monitored, d) The entry permit includes adequate provisions for hot work and corresponding control measures, and e) An adequate alarm system and exit procedures are provided to ensure that employees have adequate warning and are able to exit the confined space safely where either or both of the following occur, in the case of an explosive or flammable gas or vapour i. The atmospheric concentrations exceeds 5% of its lower explosive limit, or ii. The oxygen content of the atmosphere exceed 22.5% by volume. f) all potential sources of flammable and explosive gases are identified and blocked off/locked out, 512 OF NL OHS g) a qualified person patrols the area surrounding the confined space and maintain a fire- protection watch in that area until all fire hazard has passed, h) fire extinguishers specified as emergency equipment are provided in the area referred to in (d) above.	Rationale for Policy 129 (a):  Policy 129 (a) refers to a combustible gas instrument for determining LEL concentration. Flammable and Combustible liquids are typically classified by their flashpoints. Generally speaking, flammable liquids will easily ignite and burn at normal working temperatures. Combustible liquids will burn at temperatures that are usually above working temperatures. Flammable and combustible are differentiated by their flashpoints, referring to a combustible gas instrument may lead to confusion.  Proposed Policy Text for 129 (a)  a) In the case of an explosive or flammable gas or vapour, the atmospheric concentration is less than 5% of the lower explosive limit, as determined by an appropriate gas detection device  Rationale for Policy 129 (f):  Policy 129 (f) appears to be inconsistent with section 119 regarding confined space precautions prior to entrance. As the section pertains to hotwork occurring in a confined space, the language and intent must be the same as referenced in section 119 as toxic gases as well as flammable or explosive gases can present a hazard in a confined space. Given that Section 119 outlines all precautions to be taken prior to entering any confined space, no matter what work is occurring, the requirement to adequately isolate any hazardous substance entering the space is already established and is not required to be restated or simply align with section 119.  Proposed Policy Text for 129 (f)  (f) "Isolations in place as per section 119"  Rationale for Policy 129 (g):  With regards to section 119(g), the requirement for a qualified person to patrol the area surrounding the confined space and maintain a fire protection watch is against good industry practice. A "fire watch" should be located at the site of the hot work to oversee that activity. As this section is referring to hotwork inside of a confined space, the firewatch is required at the workface as being positioned outside of the space would add little value in the event that emergency action was required to
CONFINED SPACE	Entry Permit	132) Entry Permit  An employer shall ensure that no person enters a confined space until the employer has fulfilled the requirements of this section and a competent person has provided a written work permit	Rationale: It is suggested that section 132 (with revisions) would be all that is required under the confined space section with regards to permits as the permit section clearly outlines what is required for a permit, whether it be confined space or any other task where an activity may present a potential hazard that may be capable of causing death or serious injury (section 225). Much of the information in the entry permit section of the regs is a duplication of the PTW section.  Proposed Policy Text:  "An employer shall ensure that no person enters a confined space until the employer has fulfilled the requirements of sections 224-231 and a competent person has provided a written work permit"

CONFINED SPACE	Entry Permit	133) The written work permit must, at minimum, identify: a) Date and time if when the tests referenced in section 113 were performed, and their results; b) The type of work that: i. Can be performed in the confined space; and iii. Is explicitly banned in the confined space. c) Any engineering and administrative control measures identified as necessary; d) Specific PPE that must be worn by every employee entering the confined space; e) The means by which the work is to be performed; f) The expiry date and time of the permit; g) Names of all employees entering the confined space; and h) The method to be followed by an employee entering into, exiting from, or occupying a confined space.	Rationale for Policy 133 (b): Section 133 (b) (ii) states that a work permit must identify all work that is explicitly "banned" in the confined space. This statement is all encompassing and would be impractical to comply with in terms of identifying the type of work that is explicitly banned. Typically the work permit and associated documentation (i.e. Entry Certificate) would detail the type of work that is permitted under authorization and in essence other work not expressly stated is prohibited.  It is also recommended that the reference to "work permit" in the policy text be revised as it can be misleading and it is believed that the intent of Policy 133 is the "Entry Permit" or "Certificate". Suggest replacing "work" with the term "Entry"  Proposed Policy Text:  The written "Entry Permit", at minimum, identify:  b) Sufficient details of the work to be performed in the confined space.
CONFINED SPACE	Confined Space Closure	CONFINED SPACE CLOSURE  138) No person shall close off a confined space until a qualified person has verified that no person is inside it, and verify that all locks and isolations are removed, as required.	Rationale:  The current wording as stated in section 138 cannot be complied with and is fundamentally incorrect. It is not possible, nor is it safe, to have a confined space open until all isolations and locks are removed. For example, a gas separator on a production installation would have the system purged for an extended period of time to remove the hydrocarbon atmosphere, isolations placed on, tested to confirm no changes to the atmosphere inside the space, and then the space would be opened and ventilated. When safe to enter the space, after confirmation through gas testing by an authorized gas tester, the work would commence. When the work is completed, it would be confirmed that no person, tools and equipment, or other material not meant to be in the space is removed and the confined space would then be closed. When the space is closed, isolations can then be removed in the necessary order to safely bring the system back online. If the isolations were removed prior to the confined space being sealed, hydrocarbon gas would be introduced to a space that was open to atmosphere creating several hazards including fire and explosion and exposure to a harmful atmosphere.  Also, there may be times when equipment inside of a confined space may not be required for operation, or requires repair, however the space would still be closed for entry and be required for use. For example, an agitator inside a mud pit may be placed in extended term isolation awaiting repair, however the remaining agitators may still be adequate to circulate the mud, and therefore the space would be closed and used until the repair could be facilitated. Additionally we would like to differentiate between the physical closure of the space versus the status of the space as returned to service. A space may be physically closed for entry and may or may not be returned to service with locks and/or isolations in place. Returned to service means that the space has been approved for resumption of it its normal function with none or partial isolatio

STRUCTURAL SAFETY	Guardrails	146) (1) Every guardrail must consist of a) a horizontal top rail not less than 900 mm and not more than 1 100 mm above the base of the guardrail; b) a horizontal intermediate rail spaced midway between the top rail and the base of the guardrail; and c) supporting posts spaced not more than 3 m apart at their centres. 2) Every guardrail must be designed to withstand the greater of a) the maximum load that is likely to be imposed on it; or b) a static load of not less than 890 N applied in any direction at any point on the top rail or line.	Rationale: Both class and flag state requirements cover the design and construction of permanent guard rails on vessel. Please refer to ICLL Reg. 25.2 and 25.3, DNV GL-RU-SHIP-Pt3Ch11 Sec. 3.1 and DNV GL-OS-A101 Ch.2 Sec. 2.5.2.  In general, the dimension requirements in class and flag state regulations are more stringent than those specified in clause 146. In addition, class and flag state regulations outline the required minimum scantlings for each structural member of a guard rail. As these class and flag state regulations were developed specifically for marine vessels/units/installations, it is proposed that they be included in clause 146 as an acceptable alternative. In addition, it is recommended that the reference to 890N in 146) 2) b) is changed to 90.8 kg-force as this is easier for the average person to understand.  Based on confirmation received from NRCan, it is noted that temporary guardrails (such as those comprised of scaffolding) will need to be designed in accordance with the stated requirements as well.  Proposed Policy Text:  146) (1) Every guardrail must:  146) (1) Every guardrail must:  24) be designed and constructed in accordance with the relevant Classification Society and Flag State requirements; or,  25) b) consist of:  15. a horizontal top rail not less than 900 mm and not more than 1 100 mm above the base of the guardrail;  16. a horizontal intermediate rail spaced midway between the top rail and the base of the guardrail;  17. a horizontal intermediate rail spaced midway between the top rail and the base of the guardrail; and  18. iii. a upporting posts spaced not more than 3 m apart at their centres.  29. Every guardrail must be:  20. a) a) designed, constructed and maintained in accordance with the relevant Classification Society and Flag State requirements; or,  20. b) designed to withstand the greater of  20. ii. the maximum load that is likely to be imposed on it; or  21. ii. a static load of not less than 890 N (90.8 kg-force) applied in any direction at any point on the top r
STRUCTURAL SAFETY	Open-top Enclosures	153) A grating, screen, covering or walkway referred to in section 152 must be so designed, constructed and maintained that it will support a load that is not less than the greater of a) the maximum load that is likely to be imposed on it; or b) a live load of 6 kPa.	Rationale:  Class and flag state regulations cover the local design and construction of walkways (including design distributed loads and point loads). As these class and flag state regulations were developed specifically for marine vessel/MODU/installations, it is recommended that they are adopted as an acceptable alternative.  In addition, it is recommended that the reference to 6 kPa in b) is changed to 612 kg-force/m2 as this is easier for the average person to understand.  Proposed Policy Text:  "153) A grating, screen, covering or walkway referred to in section 152 must be: a) designed, constructed and maintained in accordance with the relevant Classification Society and Flag State requirements; or, b) designed, constructed and maintained so that it will support a load that is not less than the greater of i. the maximum load that is likely to be imposed on it; or ii. a live load of 6 kPa (612 kg-force/m2)."
STRUCTURAL SAFETY	Stairways and Ramps	Stairways and Ramps 154) If an employee in the course of employment is required to move from one level to another level that is more than 450 mm higher or lower than the former level, the employer must install a fixed ladder, stairway or ramp between the levels.	Rationale: Non-routine maintenance activities (i.e., installation or maintance of heat tracing, coating repair) could require an alternate means of access such as a portable ladder or scaffolding. This appears to be the intent, but addition of the words 'routine' helps clarify this further.  Proposed Policy Text: 154) If an employee in the course of routine work is required to move from one level to another level that is more than 450 mm higher or lower than the former level, the employer must install a fixed ladder, stairway or ramp between the levels.

STRUCTURAL SAFETY	Temporary Heat	Temporary Heat 159) (1) Subject to subsection (2), when a salamander or other portable heating device is used in an enclosed workplace, the heating device must not restrict a means of exit and must be a) so located, protected and used that there is no hazard of igniting combustible materials adjacent to the heating device; b) used only when there is ventilation provided and air quality monitored to ensure carbon monoxide levels are below the acceptable threshold limit value established by the ACGIH; and c) so located as to be protected from damage or overturning. (2) If the heating device does not provide complete combustion of the fuel used in connection with it, the heating device must be equipped with a securely supported sheet metal pipe that discharges the products of combustion outside the enclosed workplace. (3) A portable fire extinguisher that has not less than a 10B rating as defined in ULC standard ULC \$508, Rating and Fire Testing of Fire Extinguishers, as amended from time to time, be readily accessible from the location of the heating device when the device is in use.	Rationale:  It is noted that the majority of fire extinguishers seen in Canada, even on international vessel/MODU/installations, are certified in accordance with ULC standards. This is because manufacturers often carry certification from multiple bodies as they service clients internationally. It is also noted that the notation 10B means the extinguisher is suitable to extinguish 10 square feet of a class B fire.  The requirements for design, construction and inspection of fire extinguishers on marine vessel/MODU/installation is governed by FSS Ch. 4 & IMO Res. A.951(23) - Improved Guidelines for Marine Portable Fire Extinguisher. These regulations refer to an established international standard (such as ISO7165 or EN 3) for performance and fire-extinguishing test specifications. As FSS Ch. 4 & IMO Res. A.951(23) are developed specifically for marine vessel/MODU/installations, it is recommended that the following wording is used for clause 159 (3):  Proposed Policy Text:  "A portable fire extinguisher that has not less than a 10B rating as defined in ULC standard ULC S508, Rating and Fire Testing of Fire Extinguishers, as amended from time to time, be readily accessible from the location of the heating device when the device is in use. Alternatively, a fire extinguisher approved in accordance with the requirements of the vessel/MODU/installation's flag state may be accepted if its capacity is suitable for 10 square feet of a class B fire as defined in ULC S508."
LADDERS	Fixed ladder design requirements	Portable ladders 166) (1) Portable ladders must meet the requirements set out in the most recent version of one of the following standards: a) CSA Standard CAN3-Z11 Portable Ladders; or b) ANSI/ALI Standard A14.2, American National Standard for Ladders - Portable Metal - Safety Requirements (2) Portable ladders used on ships used for seismic, geotechnical, construction or diving may alternatively meet the requirements set out in the most recent version of ANSI/ALI Standard A14.1 American National Standard for Ladders - Wood - Safety Requirements.	Rationale: As the majority of vessels which enter Canada for short term work (seismic, geotechnical, construction or diving) come from Europe, EN 131 – Ladders is the most commonly seen national standard for portable ladders.  Proposed Policy Text: It is recommended that EN 131 - Ladders is included as an acceptable national standard for portable ladders.
LADDERS	Portable Ladders	167) Notwithstanding Section 166, an employer shall ensure a ladder with a load capacity of less than 250lbs/113.4kg are not used.	Rationale: Suggest a re-word of this section as it is currently difficult to read. Suggest the re-wording of 167 to the following:  Proposed Policy Text: "Notwithstanding Section 166, an employer shall ensure all portable ladders used in the workplace have a load capacity greater than 250lbs/113.4kg".
LADDERS	Portable Ladders	168) Notwithstanding Section 166, ladders shall be made of a non-combustible material on marine installations and structures used for the drilling for and production of petroleum products.	Rationale: Suggest a re-word of this section. Ladders used as part of a certified scaffold system are made of wood, however are treated similar to the process for "scaffold planks" which is allowed for in section 187 of this policy intent. Suggest the following g of 168 to the following:  Proposed Policy Text: "Notwithstanding Section 166, ladders, other than those used as part of certified scaffold system, shall be made of a non-combustible material on marine installations and structures used for the drilling for and production of petroleum product"
SCAFFOLDS, STAGES & ELEVATING PLATFORMS	General	181) If a person or equipment-may come into contact with a scaffold, stage or elevating platform in such a way that poses a hazard, a barricade must be installed around it to prevent any such contact.	Rationale: It is proposed that additional text is required to address situations involving lifting and crane operations. We recommend that for crane operations and lifting activities where potential 'touch points' occur the policy include provision for the use of alternate means of protection. As an example for crane operations, the crane operator must be aware of all scaffold, stages or platform locations prior to operation. Also, Banksman or Signalmen are utilized to assist the crane operator.  Proposed Policy Text:  181) If a person or equipment may come into contact with a scaffold, stage or elevating platform in such a way that poses a hazard:  a) a barricade must be installed around it to prevent any such contact; or,  b) where it is impractical to install a barricade other acceptable means of protection must be provided to prevent contact.

SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Scaffolds	185) Every scaffold must be capable of supporting at least four times the load that is likely to be imposed on it.	Rationale: It is proposed that additional provisions be included to ensure that there is allowance for Engineering design. Scaffolds are designed and erected in many non-standard formations and on installations that are not typical of land based operations. As such, allowance for engineering input and analysis should be captured in this section. Suggest addition to section 185 as follows:  Proposed Policy Text: 185) Every scaffold: a) where it has not been reviewed and approved by a professional engineer, must be capable of supporting at least four times the load that is likely to be imposed on it; or, b) when subjected to engineering design/review, must be comprised of systems, components and/or materials that have been manufactured in accordance with a quality system regime and tested to a suitable standard.
SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Scaffolds	186) Where reasonably practicable, manufactured platforms must be used.	Rationale:  Clarity is required regarding manufactured platforms and what would be considered reasonably practicable for their use. Although the use of manufactured metal or wooden platforms would be ideal from an erection standpoint, they are rarely practical as scaffolds on offshore installations are rarely, if ever, erected in standard formations with standard sized manufactured platforms. Due to configurations of equipment, space restrictions, ability to access areas not normally accessed, scaffolds are required to be heavily customized and as such, require the ability to change sizes of the "decking" to accommodate the varying sized spaces. This is also very important from a drops prevention standpoint as decking is required to be as close to the equipment or surface as possible to prevent dropped objects and eliminate any hazards such as slips, falls, or nip/snag hazards. This is not always possible with manufactured platforms but us almost always possible when using wooden planks as is current practice. Suggest rewording 186 as follows:  Proposed Policy Text:  186) Manufactured platforms or planks used in scaffolding systems must be adequately secured and fitted.
SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Scaffolds	187) All wooden materials used as planks in scaffolding must be treated with a transparent fire retardant coating to reduce likelihood of combustion.	Rationale:  Ladders used as part of a certified scaffold system are made of wood and are treated similar to the process for scaffold planks. Suggest the removal of "used as planks from the section. Suggest the re-wording of 187 to the following:  Proposed Policy Text:  "All wooden materials used in certified scaffolding systems must be treated with a transparent fire retardant coating to reduce likelihood of combustion"
SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Scaffolds	189) For greater certainty, requirements of a fall arrest system apply to the erection and dismantling of a scaffold.	Rationale: Scaffolders use fall protection (harnesses and safety lanyards) however actual fall arrest systems are not feasible due to the nature of where and how scaffold systems are erected. Fall protection training and awareness is completed by all scaffolders and fall protection is included in Scaffold Assessment training that are mandatory every 3 years.  Proposed Policy Text: 189) When erecting and dismantling scaffolding systems, fall protection must be used as per section 205
SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Elevating Work Platform	181) An employer must ensure that boom-supported elevated work platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:  a) ANSI Standard ANSI /SIA A92.5 Boom-Supported Elevating Work Platforms; b) CSA standard CSA B354.4, Self-Propelled, Boom-Supported Elevating Work Platforms;	Rationale: Note repeated numbering sequence in policy intent document.  It is noted that this clause is related to mobile boom-supported elevating platforms. This is not fixed equipment and if needed is likely to be sourced locally in Canada; therefore, in most cases such mobile equipment will likely comply with the clause. However, to account for the possibility of equipment sourced outside Canada, the following proposed policy text has been drafted.  Proposed Policy Text:  "181) An employer must ensure that boom-supported elevated work platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:  a) ANSI Standard ANSI /SIA A92.5 Boom-Supported Elevating Work Platforms;  b) CSA standard CSA B354.4, Self-Propelled, Boom-Supported Elevating Work Platforms;  c) A recognized international standard which can be shown to be equivalent to a) or b)"

SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Elevating Work Platform	182) An employer must ensure that self-propelled elevating work-platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:  a) CSA standard CSA B354.2, Self-Propelled Elevating Work Platforms; b) ANSI Standard ANSI /SIA A92.6 American National Standard for Self-Propelled Elevating Work Platforms.	Rationale:  It is noted that this clause is related to self-propelled elevating platforms. This is not fixed equipment and if needed is likely to be sourced locally in Canada; therefore, in most cases such mobile equipment will likely comply with the clause. However, to account for the possibility of equipment sourced outside Canada, the following proposed policy text has been drafted.  Proposed Policy Text:  "182) An employer must ensure that self-propelled elevating work-platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:  a) CSA standard CSA B354.2, Self-Propelled Elevating Work Platforms;  b) ANSI Standard ANSI /SIA A92.6 American National Standard for Self-Propelled Elevating Work Platforms;  c) A recognized international standard which can be shown to be equivalent to a) or b)."
SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Elevating Work Platform	183) An employer must ensure that manually self-propelled elevating work-platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:  a) CSA standard CSA B354.1, Portable Elevating Work Platforms;  b) ANSI Standard ANSI /SIA A92.3 American National Standard for Manually Propelled Elevating Aerial Platforms.	Rationale: It is noted that this clause is related to manually self-propelled elevating work-platforms. This is not fixed equipment and if needed is likely to be sourced locally in Canada; therefore, in most cases such mobile equipment will likely comply with the clause. However, to account for the possibility of equipment sourced outside Canada, the following proposed policy text has been drafted.  Proposed Policy Text:  "183) An employer must ensure that manually self-propelled elevating work-platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:  a) CSA standard CSA B354.1, Portable Elevating Work Platforms;  b) ANSI Standard ANSI /SIA A92.3 American National Standard for Manually Propelled Elevating Aerial Platforms;  c) A recognized international standard which is equivalent to a) or b).
SCAFFOLDS, STAGES & ELEVATING PLATFORMS	Stages	191) An employer must ensure that a suspended work-platform is a) inspected and operated in accordance with the most recent version of CSA standard CSA Z91, Health and Safety Code for Suspended Equipment Operations; and b) designed, constructed, installed, maintained, and inspected in accordance with the most recent version of CSA standard CSA Z271, Safety Code for Suspended Platforms.	Clarification:  It is understood that clause 191 is intended to cover man-riding equipment (e.g. man baskets). However, section 1.4 of CSA Z271 states that standard does not apply to the following equipment:  - portable and self-propelled elevating work platforms, which are covered in CAN/CSA-B354.1, CAN/CSA-B354.2, and CAN/CSA-B354.4;  - mast climbing work platforms, which are covered in CAN/CSA-B354.5;  - personnel platforms that are pinned or suspended from a crane boom, which are covered in CAN/CSA-B354.2;  - personnel platforms that are pinned or suspended from a crane boom, which are covered in CAN/CSA-Z187;  - access scaffold, which are covered in CAN/CSA-Z185 and CSA Z797;  - construction hoists, which are covered in CAN/CSA-Z185 and CAN/CSA-Z256;  - manlifts, which are covered in CAN/CSA-S111; and  Suspended work platform are not generally used offshore for man-riding. Man-riding operations generally utilize cranes (personnel transfer), winches or boom supported platforms.  Please clarify the following:  - what structures on an offshore installation are covered by the term "suspended work-platform"?  - Is this clause intended to cover man-riding operations carried out using winches (without a platform), cranes or fixed boom supported platforms?  Rationale:  All suspended equipment used for man-riding is covered by CAPP Safe Lifting Practices. In addition, equipment is often covered by class and flag state requirements as well. As these requirements are specifically intended for man riding in a marine environment, it is recommended that allowance is made for the acceptance of these standards.  Proposed Policy Text:

ROPE ACCESS	Rope Access	196) In the International Code of Practice, "should" must be read as expressing a mandatory requirement for a rope access program.	Rationale:  CAPP propose that the policy text as written introduces practical implementation issues when utilizing Rope Access processes and the IRATA ICOP. For example in the IRATA ICOP Part 2 of 5: Detailed Guidance, it states: "Exclusion Zones established to protect against falling objects should minimize the risk of being struck by those objects. Where reasonably practicable, the width of the exclusion zone SHOULD be at least equal to the height of the work position. This is not practical in many situations on offshore installations due to space restrictions. As a specific example of this interpretation would require the barricading the entire top deck if working on the drill derrick, which is impractical.  Proposed Policy Text:  196) In the International Code of Practice, "should" shall be read as expressing a mandatory requirement unless deemed not reasonably practical to do so, the employer must demonstrate that adequate controls are in place to mitigate or eliminate risks associated with the task.
ROPE ACCESS	Rope Access	202) An employer must ensure that all anchorages used as a component of a rope access system are capable of withstanding the following forces in any direction in which the force may be applied:  a) 22 kN, for non-engineered anchorage;  b) 2 times the maximum arresting force anticipated, for an engineered anchorage.	Rationale: There are differing values for the forces that are applied to different anchorages. The IRATA ICOP clearly defines the 15 kn and 22 kn values, and Atlantic Canada rope access service providers comply with these standards. It is not clear as to why this particular excerpt is pulled out from the rest of the sections of the ICOP such as Sections 2.7.8.2.2, 2.7.8.3.1, 2.11.2.6, 2.11.2.13 and E.2.1.2. Rope access service providers meet or exceed the standard for all the appropriate anchorage combinations. Section 195 requires alignment with the IRATA ICOP, however the addition of this section contradicts specific expectations under the ICOP. Although IRATA is highlighted as the industry best practice for rope access work, there appears to be a desire to add additional requirements to Rope access which would be outside of what rope access technicians are familiar with which could also present challenges. It is suggested that if IRATA is noted as the expected practice to follow then it should be followed as written.  Proposed Policy Text:  Suggest that this section either be removed, or reworded as follows:  202) An employer must ensure that all anchorages used as a component of a rope access system are capable of withstanding the forces outlined in the IRATA Code of Practice.
FALL PROTECTION		following means of fall protection on is used, as appropriate in the circumstances: a) a guardrail; b) temporary flooring; c) a personnel safety net; d) a travel restraint system; e) a fall-arrest system; or	Rationale: Minor wording improvements and the order has been changed to have Travel Restraint and Personal Fall Arrest System (PFAS) placed ahead of safety nets in the order of preferred system.  Proposed Policy Text: 206) If fall protection is required, an employer must ensure that at least one of the following means of fall protection on is used, as appropriate in the circumstances: a) a guardrail or other suitable barrier; b) temporary flooring / scaffolding; c) a travel restraint system; d) a fall-arrest system; e) personnel safety net; or f) other means of fall protection that provides a level of safety equal to or greater than a fall arrest system that meets the requirements of Section 209.
FALL PROTECTION		208) Where a fall may reasonably result in death or serious injury, a work permit is required pursuant to section 224.	Rationale: Falls are possible at all times, even a fall to same level which can result in serious injury. There is a need to clarify that this is referring to work at height. Permits should not be required when a suitable barrier or tagged scaffolding has been provided. Only if other fall protection equipment is required.  Proposed Policy Text: 208) Where fall protection is required and a fall may reasonably result in death or serious injury, a work permit is required pursuant to section 224. This is not required where a suitable barrier or other engineered structure has been erected to provide an equivalent level of safety.

		Rationale:
		Vessels/MODU/Installations operating internationally will likely have fall arrest components in accordance with a recognized international standard. For example, as the majority of vessels/MOUs/installations entering Canada come from Europe, it is common to find that the fall protection equipment provided is in accordance with EN standards. The following table provides the EN alternative to some of the CSA standards referenced in the proposed policy text.
FALL PROTECTION	Systems (FFAS); i) CSA Standard Z259.13, Flexible Horizontal Lifeline Systems; j) CSA Standard Z259.16, Design of Active Fall Protection Systems; k) CSA Standard Z259.10, Full Body Harnesses; l) CSA Standard CSA Z259.15, Anchorage Connectors.	OSH referenced Standard Alternative EN Standard CSA 2259.12 Self-Retracting Devices for Personal Fall-Arrest Systems EN 360 - Retractable type fall arresters CSA 2259.3 Descent Devices EN 361 - Full body Harmesses CSA 2259.3 Descent Devices EN 361 - Full body harmesses CSA 2259.3 Descent Devices EN 361 - Descender devices for rescue CSA 2259.12 Connecting Components for personal fall arrest systems (PFAS) EN 362 - Connectors While it is reasonable for vessels/MOUs/installations which are operating in Canada for extended periods to change out all fall protection equipment for CSA certified equipment, this decision is not as clear for a vessel/MOU/installations operating in Canada for a short duration. Assuming the equipment provided is certified in accordance with a recognized international standard, the risk to personnel could actually be increased by forcing the equipment that the crew is familiar with to be changed out for CSA equipment.  New equipment means the crew requires training and time to become familiar with the equipment; this time may not be available if operating in Canada for a short duration. While the crew can receive formal training, if they are only using the equipment for a short period (sometimes as short as I week) there is an inherent unfamiliarity with the new CSA equipment when compared to the original equipment they were trained on and grown familiar with. This may increase risk to personnel (despite formal fall arrest training).  As such it is recommended that an allowance be made for short term operations in Canada to continue using their current onboard fall arrest equipment; assuming it is design, constructed and maintained in accordance with an acceptable international standard.  Proposed Policy Text:  a) The components of a fall-arrest system must meet the most recent version of the following standards:  i; CSA Standard 2259 2.1 Self-arresters and Vertical Lifelines,  ii; CSA Standard 2259 1.2 A fall Arresters and Vertical Lifelines,  ii; CSA Standard 2259 1.8 A faresters and Ver

FALL PROTECTION	210) An employer must ensure that all anchorages used as components of a fall-protection system capable of withstanding the following forces in any direction in which the force may be applied: a) 22 kN, for non-engineered anchorage; b) 2 times the maximum arresting force anticipated, for an engineered anchorage.	Rationale:  This anchor point requirement as stated in Policy 210 is intended for a personnel fall arrest system. The requirements for a travel restraint system are much less as no impact force is ever seen. Thus CAPP recommend to restate the policy and replace the reference to fall protection with fall arrest as indicated in the proposed policy text.  For policy 210 (a) we suggest that the unit (kN) be converted from kN to kg-force (kgf) as this is easier for the average person to understand.  For policy 201 (b) it is important to specify who can calculate the maximum arrest force when using engineering anchorage and a personal fall arrest system.  Proposed Policy Text:  210) An employer must ensure that all anchorages used as components of a fall-protection system capable of withstanding the following forces in any direction in which the force may be applied: a) 22 kN (2243kg-force), for non-engineered anchorage and a personal fall arrest system; b) 2 times the maximum arresting force anticipated, for an engineered anchorage and a personal fall arrest system, as determined by a Professional Engineer or other suitably qualified person
FALL PROTECTION	211) An employer must ensure that a lanyard used in a fall-arrest system is equipped with an energy absorber, unless all of the following conditions are met:	Rationale: Use of Self Retracting Lifelines (SRL) in a fall arrest system are much preferred as they limit free fall. Otherwise a shock absorbing lanyard is the next alternative.  Proposed Policy Text: 211) Unless a self retracting lifeline is used, an employer must ensure that a lanyard used in a fall-arrest system is equipped with an energy absorber, unless all of the following conditions are met: a) the fall-arrest system is designed by a competent person to limit the free fall to less than 1.2 m and 4 kN (408 kgf) arresting force; b) the fall-arrest system does not permit the user to contact an unsafe surface.
FALL PROTECTION	217) Despite any requirements set out in the standard required by the above, a personnel safety net must be erected and installed in accordance with all of the following:  a) it must be erected and installed under the supervision of a competent person; b) it must be positioned as close as reasonably practicable, but no more than 4.6 m below the work area and extend at least 2.4 m on all sides beyond the work area; c) When used under a gangway, it must extend on both sides of the gangway for a distance of at least 1.8 m; d) it must be positioned and maintained so that when arresting the fall of a person, the maximum deflection of the personnel safety net does not permit any portion of the person to contact another surface; e) it must be kept free of debris, obstructions or intervening objects that may be struck by a person who falls from a workplace into the net; f) where connected to another personnel safety net, the splice joints connecting it with the other personnel safety nets are equal to, or greater in strength than, the strength of the weakest of the personnel safety nets; and	General Comment: It has been noted policy text 217 is incomplete and that additional clauses have not been inlcuded for review.

FALL PROTECTION	222) Every employee working where fall arrest is required must complete a fall arrest training program that includes, at minimum, the following components:  a) a review of all applicable health and safety legislation, regulations and standards, including roles and responsibilities of workplace parties; b) importance of fall protection training; c) identification of fall hazards; d) review of the hierarchy of controls that may be used to eliminate or minimize risk of injury from a fall; e) the different methods of fall protection and the most suitable application of the methods; f) fall-protection and safe-work procedures; g) instruction on assessing and selecting specific anchors that may be used for various applications; h) instruction on selecting and correctly using fall-protection components, including connecting hardware; i) information about the effect of a fall on the human body, including all of the following: i. free fall, ii. swing fall, iii. maximum arresting force, and iv. the purpose of energy absorbers, j) pre-use inspections of equipment and systems; k) the use, care, storage, maintenance and inspection of fall protection systems, equipment and components, l) emergency response procedures to be used if a fall occurs; m) practice in all of the following: i. inspecting, fitting, adjusting and connecting fall-protection systems and components.	Rationale:  The wording has been revised to align with the requirements of the 'Atlantic Canada Offshore Petroleum Standard Practice for the Training and Qualification of Offshore Personnel'. This standard practical reflects current practice and has been developed with wide engagement of all stakeholders, including workforce representatives.  Proposed Policy Text:  222) Every employee working where fall arrest is required must complete a fall arrest training program that includes, at minimum, the following components: a) a review of all applicable health and safety legislation, regulations and standards, including roles and responsibilities of workplace parties; b) Fall protection theory c) Types of equipment and limitations of each type d) Identification of equipment using samples e) Practical applications of fall arrest and fall prevention systems f) Pre-use inspection of equipment using samples g) The correct fitting of harnesses using examples h) Ladder ascent and descent using permanent and temporary systems i) Proper care and use of fall arrest lanyards with deceleration shock absorbers j) The use of vertical and horizontal lifelines k) Care, maintenance, inspection and certification l) Introduction to rescue considerations
	General Comment on Permit to Work	Permit to Work  It is recommended that the reference and requirements for a Permit to Work or Control of System precede those sections in policy text and regulation where it is intended for the system to be applied. As described in our specific comments, the PTW system is the overarching management process that is applied to various activities that require special authority and precautionary measures such as confined space entry, hot work or isolation work, there are many other situations or activities where this system is applied.  There are specific notations within the policy intent document that interchange the use of various terms used in the permit to work process such as permit to work, work permit and entry permit. Generally, a permit to work system is not a single form and is typically comprised of the primary authorizing document commonly referred to as the "Work Permit" and this Work Permit is supported by a number of ancillary documents (forms, permits or certificates). The work would not be authorized until the Work Permit and all supporting documents or certificates are completed and endorsed as per the Operators unique approach to the permitting or controlling of these types of activities.  We propose that the use of these terms be reviewed as per specific comments located in the relevant sections of the document. It is also suggested that the requirements for a permit to work system are defined in policy text at a sufficiently high level to facilitate the different approaches applied by various Operators in the development and administration of their permit to work or control of work management processes.  The inclusion of prescriptive language which is predominant throughout the proposed policy intent and likely to be transferred to subsequent regulation will place unnecessary limitations and restrictions on the continued advancement of occupational health and safety management systems within Atlantic Canada's offshore areas.
PERMIT TO WORK	program required under the Act, a permit to work system that, at minimum, contains:  a) Roles and responsibilities; b) Training and education on the system; c) How necessary information will be communicated to relevant personnel; d) Work requiring a permit; e) Method of assessing hazards; f) Work permit process; g) Record keeping and retention; and h) Regular verification and monitoring of the system.	Rationale:  CAPP propose that a definition for Permit to Work System be added to the definitions section of the policy intent document.  Proposed Policy Test:  A permit-to-work system is a formal recorded process used to control work which is identified as potentially hazardous. It is also a means of communication between site/installation management, plant supervisors and operators and those who carry out the hazardous work. (Defintion of a Permit To Work System from HSE UK)

PERMIT TO WORK	225) A Permit to work is required where an activity in the workplace presents a potential hazard that may be capable of causing death or serious injury, and any other activity requiring a work permit, as prescribed in these regulations.	Rationale: As per the note in section 224, CAPP have provided detail comments in respect of the concept of the Permit to Work System.  CAPP suggest that the reference to "Permit to Work in Policy 225 be changed to "Work Permit" and differentiated from the Permit to Work system. The terminology should be consistent throughout the regulations to prevent ambiguity. As noted in this section, a "Permit to Work", whereas in section 227 it is referenced as a work permit. Although subtle, consistency should be maintained throughout.  CAPP also propose the inclusion of a definition for a "Work Permit" that would typically be part of a permit to work system to aid in differentiating between a Permit to Work System or Procedure and the Work Permit which is a single authorizing document.  Proposed Policy Text:  "A Work Permit is required where an activity in the workplace presents a potential hazard that may be capable of causing death or serious injury, and any other activity requiring a work permit, as prescribed in these regulations"  Proposed Definition:  Work Permit - Is a paper or electronic certificate or form, and associated documents, which is used as part of an overall permit to work or control of work system to authorize and control work which is identified as potentially hazardous ((adapted from HSE UK).
PERMIT TO WORK	226) The employer must designate a competent person to issue a written work permit, including the signatures required in 227, before the commencement of the work.	Rationale:  CAPP propose that the signatories to the Work Permit be limited to the competent person or authorizing authorities only. Personnel engaged in permitted work activity endorse associated documents confirming that they are fully informed of the work, associated hazards and required preventative measures or mitigations.  Proposed Policy Text:  "The employer must designate a competent person to issue a written work permit before the commencement of the work"
PERMIT TO WORK	227) The work permit must include: a) The signature of the competent person(s) completing the work permit, and b) The signatures of all persons involved in the work, verifying that they have read and understood the permit.	Rationale:  The Permit to Work System includes a series of associated documents, which combine to form the overall permit to work system to authorize a work activity. These documents include the "Work Permit" and associated certificates (e.g. gas test certificates, isolation certificates, confined space certificates, Job Safety Analysis, Toolbox Talks, etc.). Typically, only authorizing authorities sign the "Work Permit" while personnel engaged in the work sign the associated certificates (Job Safety Analysis, Toolbox Talks, etc.). As such, all workers sign on to permit documentation, as opposed to the "Work Permit".  Proposed Policy Text: 227) The work permit documentation must include: a) The signature of the competent person(s) completing the work permit, and b) The signatures of all persons involved in the work, verifying that they have read and understood the permit.

#### **CAPP Transitional OHS Regulatory Review - December 2015**

#### **General Comments:**

The changes being proposed by NRCan is a very positive and much appreciated initiative and will serve to moderate some of the compliance difficulties encountered by construction and seismic vessels during the spring and summer season of 2015.

It is recommended that some thought is given to how the requirements for a "Marine Vessel" differ from those for a "Marine Installations". For many of the regulations listed below, the requirements for the "Marine Vessel" have been amended to better reflect internationally recognised marine regulations and standards; however, for many regulations, the "Marine Installation" requirements remain unchanged. Requiring a "Marine Installation" to meet different standards than a "Marine Vessel" does not seem logical in many instances. For example, requiring a "Marine Installation", whether it is mobile or not, to meet a different standard for lifejackets, immersion suits, etc. does not seem to be a reasonable approach as the expected performance standard for such equipment should be the same whether installed on a "Marine Installation" or a "Marine Vessel". This thought process would be the same for firefighter outfits/SCBA's, protective footwear.

In addition, it seems that the same approach is being applied to "Marine Installations" whether or not they are fixed (i.e. GBS or Jacket) or mobile. As mobile units (semi-sub, drill ship, FPSO's, Diving Support Vessel (DSV) and Well Intervention Units) are often operated internationally, they are generally outfitted in accordance with Classification Rules and the applicable Statutory Regulations (i.e. SOLAS and/or MODU Code). While in some cases it may make sense to apply different design standards and codes to a fixed platform, it generally does not seem logical to apply different standards and codes to a mobile "Marine Installation" than would be applied to a "Marine Vessel" as they are both internationally operated vessels which fall under IMO and Class requirements. For example, while it could be argued that applying the National Fire Code of Canada to fire protection equipment onboard a fixed platform (e.g. Jacket or GBS) which is not subject to Class/Statutory requirements may be an appropriate approach, mobile units (such as a drillship or semi-submersible) are generally outfitted for fire protection in accordance with Classification Rules and the applicable Statutory Regulations (i.e. SOLAS and/or MODU Code) and should be evaluated against these marine standards to which they are designed, constructed and maintained. This approach for mobile "Marine Installations" would align with the proposed approach for a "Marine Vessel".

To further clarify this conflict between classifications of "Marine Installation" to "Marine Vessel", consider the scenario of a DSV or Drill Ship (e.g. Seven Eagle and Stena Carron) and a Construction Vessel entering Canada for short duration in the same season. Because the Construction Vessel is classified as a "Marine Vessel" it would not be required to submit RQ's or change out equipment in order to meet the TOSH regulations proposed below; however, the DSV or Drill Ship would be. As all these vessels would likely be in accordance with the applicable Classification and Statutory requirements, it does not seem logical that the DSV and Drill Ship would be held to a different standard than the Construction Vessel.

Particularly useful is the allowance to use certain international standards and codes and the inclusion of the "as amended from time to time clause" when referencing some of the proposed revisions and additions. Although there is an effort to add the "as amended from time to time clause" to some of the standard and code revisions being proposed there is a need to address one of the most fundamental problems within the Transitional Regulations. A simple solution to the matter would be the inclusion of the following statement, as was the case in the NF Offshore Petroleum Installation Regulations — Interpretation Section, Subsection (3) "A reference to a standard or specification shall be considered to be a reference to that standard or specification as amended from time to time". The recommendation is that it be included into the Interpretation section of the *TOSH Regulations*.

#### Points that bear restatement:

- As mentioned above, this is a very commendable initiative on the part the Federal and Provincial governments to address the problems imposed by the TOSH Regulations for short term construction and seismic programs.
- The acceptance of alternative standards and codes for Marine Vessels is a progressive step that should also be considered in application to Marine Installations.
- In respect standards and codes within the Regulations that are date specific, consideration should be given to incorporating "an amended from time to time "clause within the Interpretation Section of the Regulations.

The current initiative to amend the Transitional OSH Regulations offers an excellent opportunity to make some needed regulatory changes and, as well, to avoid some significant unnecessary compliance complications over the next four years.

			PROPOSE	D AMENDMENT		
SUBJECT	SEC.	EXISTING REQUIREMENT	WORKPLACES ON MARINE INSTALLATION OR STRUCTURES OTHER THAN MARINE VESSELS WORKPLACES	MARINE VESSELS WORKPLACES  definition: workplaces on vessels conducting construction, geotechnical or seismic work	NOTES	INDUSTRY COMMENTS
FIRE PROTECTION EQUIPMENT	TOHS1 82(2)	<ul> <li>(1) Subject to subsection (2), every drilling rig must be equipped with</li> <li>a) at least one portable fire extinguisher with a 40 BC rating, as defined in the ULC Standard, that is readily accessible from (i) each boiler, (ii) the drill floor or doghouse, (iii) the enclosure for the choke manifold, (iv) every enclosure housing a fuel-fired engine or heating unit, and (v) every welding unit; and</li> <li>b) at least one portable multipurpose fire extinguisher with an 80 BC rating, as defined in the ULC Standard.</li> <li>(2) Fire protection equipment must be</li> </ul>	Revision to 182 (in red):  The following does not apply to marine vessels:  (1) Subject to subsection (2), every marine installation drilling rig must be equipped with  a) at least one portable fire extinguisher with a 40 BC rating, as defined in the ULC Standard, that is readily accessible from (i) each boiler, (ii) the drill floor or doghouse, (iii) the enclosure for the choke manifold, (iv) every enclosure housing a fuel-fired engine or heating unit, and (v) every welding unit; and b) at least one portable	• Employers shall ensure that each workplace has fire protection equipment that is in compliance with  a) a recognized classification society rules or codes,  b) SOLAS Chapter II-2, Regulation 10, and c) IMO FSS Code, Chapter 4   Definitions: "recognized classification society" means a society or association for the classification of ships that is recognized as a Certifying Authority under the Certificate of Fitness Regulations; AND  "rules or codes" means rules, regulations or codes relating to the construction, installation and inspection of marine machinery, issued by a recognized classification society;	Transport Canada published the Canadian Supplement to the SOLAS Convention (https://www.tc.gc.ca/eng/marinesafety/tp-menu-515-4292.htm) which outlines a set of mandatory Canadian-specific requirements related to SOLAS.	Agreed.

		installed, inspected and maintained for every workplace in accordance with the standards set out in Parts 6 and 7 of the National Fire Code of Canada, 2010.	multipurpose fire extinguisher with an 80 BC rating, as defined in the ULC Standard.  (2) Fire protection equipment must be installed, inspected and maintained for every workplace in accordance with the standards set out in Parts 6 and 7 of the National Fire Code of Canada, 2010.	SOLAS – International Convention for the Safety of Life at Sea FSS Code - International Maritime Organization (IMO) International Code for Fire Safety Systems (FSS Code)		
FIRE FIGHTING EQUIPMENT	MIS 3	(1) The operator must ensure that the workplace that is a manned installation be provided with at least 10 sets of firefighter equipment and must ensure that the workplace that is an unmanned installation be provided with at least two sets of firefighter equipment, each of which must consist of  (a) protective clothing, including boots and gloves, that  (i) meets the requirements of National Fire	Retain original wording	<ul> <li>Additions to 3:</li> <li>Firefighting Equipment:</li> <li>Employers shall ensure firefighting equipment is in accordance with SOLAS (Chapter II-2, Regulation 10) and the IMO FSS Code (Chapters 3)</li> <li>Employers shall ensure that each workplace has four (4) sets of firefighting equipment, with each set having:         <ol> <li>A fire-fighter's outfit that is in accordance with the European Marine Equipment Directive (MED) EU Council Directive 96/98/EC as amended from time to time</li> </ol> </li> </ul>	Proposed language reflects the supplemental requirements to SOLAS that have been identified by Transport Canada in the Canadian Supplement to the SOLAS Convention.  Additional requirement includes:  a) a minimum of four (4) sets of Fire-fighting equipment and SCBAS (SOLAS only requires two). The rationale for this additional	General: CSA Z94.1-05 clearly states that it applies to protective headwear for industrial, construction, mining, utility, and forestry workers; and does not apply to firefighting helmets, rescue helmets, crash helmets, sports and recreation helmets, or riot control helmets. Based on this, it appears that CSA Z94.1-05 is not intended to be applied to a marine environment or firefighter helmets. It is suggested that SOLAS, FSS and possibly NFPA are used as an alternative standard.  Agreed that it makes sense to align this requirement with the Canadian Supplement to the SOLAS Convention, if it will be applied by Transport Canada as the MED Wheel mark is industry norm for such equipment.

- (ii) protects the skin from being burned by heat radiating from a fire and by steam,
- (iii) has a waterresistant outer surface, (iv) in the case of boots, is made of rubber or other electrically nonconducting material, and
- (v) in the case of gloves, meets the requirements National Fire Protection Association 1973, Standard on Gloves for Structural Fire Fighting; and
- (b) a firefighter's helmet with visor that meets the requirements in the standard set out in <u>Canadian</u>

- amended from time to time; and,
- ii. A self-contained breathing apparatus (SCBA), equipped with two spare bottles, rated for use in fighting fires and is in accordance with one of the following standards
  - a. the European Marine Equipment Directive (MED) EU Council Directive 96/98/EC as amended from time to time;
  - b. the NFPA 1981(2007) standard as amended from time to time;

c. or the National

- Institute and
  Occupational Safety
  and Health (NIOSH)
  requirements, as
  amended from time
  to time)
  and containing air that is
  in accordance with
  Canadian Standards
  Association CAN3-Z 180.100, Compressed Breathing
  Air and Systems, as
  amended from time to
  time.
- that the firefighting team on vessels is typically two (2) individuals. The additional sets would ensure there is equipment available for the primary team, as well as a back-up team, in the event that the primary team runs into trouble, and
- b) Requirement for SCBAs to have two bottles and for compressed air to be compliant with CSA standard. This is consistent with the existing requirement.

Chandauda Assasiation	Definitions	
Standards Association	Definitions:	
CAN/CSA-Z94.1-05,		
Industrial Protective	SOLAS – International Convention for	
<u>Headwear — Performance,</u>	the Safety of Life at Sea	
<u>Selection, Care</u>		
and Use.	FSS Code - International Maritime	
	Organization (IMO) International Code	
(2) In addition to any	for Fire Safety Systems (FSS Code)	
firefighting equipment		
required by the		
Newfoundland and Labrador		
Offshore Marine Installations		
and Structures Occupational		
Health and Safety		
Transitional Regulations, the		
workplace that is a manned		
installation must be		
provided with at least four		
sets, and the workplace at		
which employees workplace		
that is an unmanned		
installation must be		
provided with at least two		
sets, of the following		
equipment:		
(a) a self-contained		
breathing apparatus that		
(i) is capable of		
functioning for at		
least 30 minutes,		
(ii) meets the		
requirements of		
requirements of		

<u>Canadian Standards</u>		
<u>Association</u>		
<u>CAN/CSA-Z94.4-02,</u>		
<u>Selection, Use,</u>		
and Care of		
Respirators, and		
<u>CAN3-Z 180.1-00</u>		
(R2005), Compressed		
<u>Breathing Air and</u>		
<u>Systems</u> , and		
(iii) is equipped with		
two spare bottles;		
(b) a portable electric safety		
lamp that		
(i) will operate in the		
conditions		
anticipated for a		
Class I, Division 1,		
hazardous area,		
(ii) is operated from		
a rechargeable		
battery capable of		
operating for at least		
three hours, and		
(iii) can be easily		
attached to the		
clothing of a		
firefighter, at or		
above the waist		
level;		
15.55,		
(c) an axe with an insulated		
(0)		

		handle and a carrying belt;				
		and				
		(d) a fire-resistant life and				
		signalling line and a safety				
		belt and harness that meet				
		the requirements of National				
		Fire Protection Association				
		1983, Standard on Fire				
		<u>Service Life Safety Rope,</u>				
		Harness and Hardware.				
IMMERSION	MIS	The operator must provide	Retain original wording	Addition to 2:		
SUITS	2(A)				Proposed requirement is	CAN/CGSB-65.16- M89 – Will cover local
		(a) in the case of a workplace	a) in the case of a workplace	<ul> <li>Employers shall use only</li> </ul>	consistent with Transport	Canadian Vessels
		that is a manned installation,	that is a manned installation,	immersion suits	Canada's policy laid out in	
		immersion suits for 200% of	immersion suits for 200% of	<ul> <li>a. that are in accordance</li> </ul>	their document entitled	LSA/MSC's – will cover international vessels
		the total number of persons	the total number of persons on	with the National	Acceptance of SOLAS	
		on board at any one time,	board at any one time, that	Standard of Canada	Immersion Suits Until the	Canadian Additional Requirements – TP14475
		that conform to	conform to	CAN/CGSB-65.16- M89,	Proposed Vessel	Part I, 1.2.1 simply states that LSA need to be
		the <u>National Standard of</u>	the <u>National Standard of</u>	Marine Abandonment	Construction and	Hi-Vis colour. Part II, 15 is related to having
		Canada CAN/CGSB-65.16-	Canada CAN/CGSB-65.16- M89,	Immersion Suit Systems	Equipment Regulations	French and English marking – this may not be
		M89, Marine Abandonment	Marine Abandonment	as amended from time to	are completed.	met for international vessels, but is not a
		Immersion Suit Systems, and	Immersion Suit Systems, and	time; or,		major issue and can be likely be solved by
		that are stowed such that	that are stowed such that one	b. that meet the	Second & third bullets are	confirming the working language of
		one suit is readily available	suit is readily available	requirements of	to ensure consistency in	crew/vessel is English.
		adjacent to each bed and the	adjacent to each bed. The	Resolution MSC.48(66)	requirement of number	
		remaining suits are equally	helicopter passenger	and Resolution	and location of immersion	Clarification required regarding TP14475 and the
		distributed among	transportation suit approved to	MSC.81(70) as amended	suits.	marking language requirements (i.e. does it need to be in both French and English for the immersion
		evacuation stations; and	( <u>CAN/CGSB</u> 65-17-2012) will be	from time to time; be		suit and bag.) No benefit of having French on the
			acceptable in lieu of 65-16-	approved as an insulated	Approval should be by a	international vessel where French is not the
		(b) in the case of a	M89 for use adjacent to each	immersion suit; be	recognized classification	working language. Suggest this be removed from
		workplace that is an	bed and the remaining suits	approved for use without	society.	the regulation. If it is a Canadian flagged vessel it
		unmanned installation,	are equally distributed among	a separate lifejacket; and,		would meet TC requirements and have the

immersion suits for 100% of the total number of persons on board at any one time, that conform to the National Standard of Canada CAN/CGSB-65.16-M89, Marine Abandonment Immersion Suit Systems, and the remaining suits are equally distributed among evacuation stations.

evacuation stations; and

(b) in the case of a workplace that is an unmanned installation, immersion suits for 100% of the total number of persons on board at any one time, that conform to the National Standard of Canada CAN/ CGSB-65.16-M89, Marine Abandonment Immersion Suit Systems, and the remaining suits are equally distributed among evacuation stations.

comply with the Canadian Modifications set out in the Transport Canada standard TP 14475 as amended from time to time, Canadian Life Saving Appliance Standard, Part I, Chapter 1, Subsection 1.2.1 as amended from time to time, "Canadian modifications to general requirements" and Part II, Section 15, "Marking"<sup>1</sup>.

- e Employers shall ensure that each workplace has a number of compliant immersion suits equivalent to 200% of the total number of employees at the workplace.
- Employers shall stow one compliant immersion suits adjacent to each bed and stow the remaining compliant immersion suits in equal numbers

Resolution MSC.48(66) – International Life Saving Appliance Code

Resolution MSC.81(70) Revised Recommendation
on Testing of Life-Saving
Appliances

bilingual markings. If it is an international vessel, its working language would likely not be French and the addition of the markings would have no safety benefit.

200% immersion suits are more than required by SOLAS, but can be addressed by renting suits (i.e. no RQ required).

Location of immersion suits can be accommodated.

The correct Standard reference to the Marine Abandonment Immersions Suit System is CAN/CGSB-65.16-2005. The column under Marine Installation states that the original wording will be retained, that is, reference to the CAN/CGSB-65.16-M89 version. This means compliance is required to the 1989 version. If this statement is not amended RQ's will need to be prepared to justify having suits compliant with the 2005 standard.

Page 4, MIS 2(A) – There is a new requirement for Marine vessels to have 200% immersions suit capacity onboard. We wonder if this is a misinterpretation of the intent of the AAIA Part II.I, Section 201.1 (I) which interprets a **Marine Installation** as "a ship, including a ship used for construction, production or diving or geotechnical

### And where Part II, Section 15, "Marking" states:

15.1.1.1 Markings are considered indelible if they remain legible after the following test: Submerge a well-cured sample in fresh water for not less than 72 hours. Remove the sample from water and place it, with its face up, on a hard surface. Rub vigorously with the fingers for not less than 30 seconds.

15.1.2.1 Marking required by paragraphs 1.2.2.9, 1.2.3, 4.2.6.3, 4.2.7.1 and 4.3.6 of chapter I of the LSA Code is to be in both English and French. (Does this include markings on the survival suit) 15.1.2.2 Instructions, information, information manual and markings referred in this Standard are to be in both English and French.

<sup>&</sup>lt;sup>1</sup> Where TP 14475, Canadian Life Saving Appliance Standard, Part I, Chapter 1, Subsection 1.2.1, "Canadian modifications to general requirements" states: Paragraph 1.2.2.6 of the LSA Code (MSC.48(66) states: Canadian life-saving appliances are to be of a highly visible colour such as: Yellow, Orange, or Red.

				at each evacuation station.		or seismic work. Under the Offshore Petroleum
						Installation Regulations an Installation "means a
						diving installation, a drilling installation, a
						production installation or an accommodation
						installation. Section 22(1)(d) speaks to the
						requirement to have 200% immersion suits onboard for the total crew complement.
						Historically, the 200% requirement has never been
						applied to marine vessels. I would think that Part
						III.I was simply intended to ensure the new OSH
						legislation applied to all installation and marine
						vessels within the Newfoundland jurisdiction. The
						TOSH Regulations themselves simply refer to a
						manned <b>installation</b> being provided with 200% immersion suits. There is a difference in the
						interpretations between Marine Installation and
						Installation within the legislation. We believe the
						200% only applies to <b>Installations.</b>
PROTECTION	TOHS	If, in a workplace, there is a	Retain original wording.	Addition to 178:	CAN/CGSB 65.11-M88,	It is unclear if this modification is referring to the
FROM	178	hazard of drowning, the			Personal Flotation Devices	vessels emergency lifejackets, or the inflatable
DROWNING		employer must provide	NOTE: CAN/CGSB 65.11-M88	Employers shall provide every	was withdrawn in 2008	PFD's the crew use while working over/near vessels
		every person granted access	Personal Floatation Devices	employee with a life jacket <del>or</del>	and not replaced. To be	side. It is not recommended that the vessels
		to the workplace with	was withdrawn in 2008 and not	personal flotation device (PFD) that	reviewed/revised in	emergency life jackets are used for working
			replaced.	are in accordance with either	permanent regulations.	over/near vessel side as this can lead to damaged/misplaced lifejackets. The working PFD's
		(a) a life jacket or personal		(a) the Canadian General Standards		should be a separate pool of equipment from the
		flotation device that meets		Board Standard CAN/CGSB 2-		emergency lifejackets for the crew.
		the standards set out in the		65.7-2007, Life Jackets, as		
		Canadian General Standards		amended from time to time; or,		b) Should refer to life jackets being in accordance
		Board Standard		(b) Regulation 2 of Part 1 to IMO		with LSA CODE CHAP II Section 2 & IMO
		(i) <u>CAN/CGSB 2-65.7-</u>		Resolution MSC.81(70)("Revised		Resolution MSC.81(70)
		2007, Life Jackets,		Recommendation on Testing of		
		published in 2007		Life-Saving Appliances") as		
		(ii) <u>CAN/CGSB 65.11-</u>		amended from time to time.		
		M88, Personal				
		Flotation Devices,		Employers shall provide a safety net		

		published in 1988; or		or a fall-protection system at all	
		(b) a safety net or a fall-		workplace locations that an employee	
		protection system.		may occasion without a wearing life	
				jacket, PFD or immersion suit.	
ELECTRICAL	TOHS7	All electrical equipment	Retain original wording.	Addition to 74:	Agreed.
<b>HAZARDOUS</b>	4(1)	within a hazardous location			
AREAS		as defined in the <u>Canadian</u>		Exempt marine vessel workplaces	
		Electrical Code must be		from 74(1)	
		constructed, certified and			
		marked as suitable for the		Employers shall ensure that all	
		conditions in that location.		electrical equipment are in	
				accordance with the rules or codes of	
		Canadian Electrical Code		a recognized classification society.	
		CSA Standard C22.1-2012			
		Canadian Electrical Code,		Definitions:	
		Part I, published in 2012.			
				"recognized classification society"	
				means a society or association for the	
				classification of ships that is	
				recognized as a Certifying Authority	
				under the Certificate of Fitness	
				Regulations	
				"rules or codes" means rules,	
				regulations or codes relating to the	
				construction, installation and	
				inspection of marine machinery,	
				issued by a recognized classification	
				society	
PROTECTIVE	TOHS	If there is a hazard of a foot	Retain original wording.	Addition to 171(1):	Agreed.
FOOTWEAR	171(1)	injury or electric shock			
		through footwear in a		If there is a hazard of a foot injury or	
		workplace, protective		electric shock through footwear in a	

standards set out in CSA Standard 2195-09, Protective Footwear, published in 2009  (a) CSA Standard 2195-09, Protective Footwear, as amended from time to time; (b) ASTM F2413-11 Specification for Performance Requirements for Protective Safety Toe Cap Footwear, as amended from time to time; (c) ANSI 241 Protective Footwear, as amended from time to time; or (d) ISO EN 20345-11 PPE Safety Footwear Standard, as amended from time to time.  TOHS HANDLING/ SAFETY  TOHS Under Total Served in a workplace, the employer SAFETY  TOHS One Code for Canada's Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.  TOHS One Code for Canada's Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.		$\overline{}$	C	T	Colore the companies that was tale	Т	
FOOD HANDLING/ SAFETY  TOHS HANDLING/ SAFETY  When food is served in a workplace, the employer must adopt and implement a food safety program which is aligned with the WHO IHR and is based on HACCP principles, in terms of source, preparation, published by the Canadian Restaurant and Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.			footwear that meets the		workplace, the employer shall provide	1	
FOOD TOHS HANDLING/ SAFETY  TOHS HACCP – hazard analysis Critical control points Critical control points Critical control points Critical control points WHO - World Health Organization Organization Organization Organization Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.					·	1	
FOOD HANDIUNG/ SAFETY  TOHS When food is served in a workplace, the employer must adopt and implement a food safety program which is aligned with the WHO IHR and is Served in a workplace, the employer must adopt and implement a food safety program which is aligned with the WHO IHR and is Served in a workplace, roles and responsibilities.  FOOD HANDIUNG/ SAFETY  TOHS When food is served in a workplace, the employer must adopt and implement a food safety program which is aligned with the WHO IHR and is based on HACCP principles, in terms of source, preparation, service, roles and responsibilities.  WHO - World Health Organization Code for Canada's Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.						1	
to time;  (b) ASTM F2413-11 Specification for Performance Requirements for Protective Safety Toe Cap Footwear, as amended from time to time;  (c) ANSI 241 Protective Footwear, as amended from time to time;  (d) ISO EN 20345-11 PPE Safety Footwear, as amended from time to time;  TOHS  HANDLING/ SAFETY  TOHS  When food is served in a workplace, the employer must adopt and implement Section G of the Sanitation Code for Canada's Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.  TOHS  When food is served in a work place, the employer must develop and implement a food safety program which is aligned with the WHO IHR and is based on HACCP principles, in terms of source, preparation, service, roles and responsibilities.  WHO - World Health Organization Conganization to requirement or process for Marine Vessels to comply with WHO/HACCP, it is assumed that he responsibility will fall on the Operator to confirm vessel procedures are aligned with WHO/HACCP and that no RQ would be required if confirmation from Operator is received. This would mean that there will not be a Certificate stating compliance; Operator could confirm compliance through letter.			<u>Footwear</u> , published in 2009			'	
Composition of Performance Requirements for Performance Requirements for Performance Requirements for Performance Requirements for Protective Safety Toe Cap Footwear, as amended from time to time; or (d) ISO EN 20345-11 PPE Safety Footwear Standard, as amended from time to time; or (d) ISO EN 20345-11 PPE Safety Footwear Standard, as amended from time to time.    FOOD HANDLING   SAFETY			·		· ·	1	
Performance Requirements for Protective Safety Toe Cap Footwear, as amended from time to time;  (c) ANSI Z41 Protective Footwear, as amended from time to time, or (d) ISO EN 20345-11 PPE Safety Footwear Standard, as amended from time to time.  TOHS HANDLING/ SAFETY  When food is served in a workplace, the employer must adopt and implement a food safety program which is aligned with the WHO IHR and is based on HACCP principles, in terms of source, preparation, service, roles and responsibilities.  HACCP – hazard analysis critical control points  HACCP – hazard analysis  Critical control points  HACCP – hazard analysis			·		to time;	1	
Protective Safety Toe Cap Footwear, as amended from time to time; (c) ANSI Z41 Protective Footwear, as amended from time to time; or (d) ISO EN 20345-11 PPE Safety Footwear Standard, as amended from time to time.  TOHS HANDLING/ SAFETY  TOHS When food is served in a workplace, the employer must adopt and implement Section G of the Sanitation Code for Canada's Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.  Replace 106 with: If food is served in a work place, the employer must develop and implement a food safety program which is aligned with the WHO IHR and is based on HACCP principles, in terms of source, preparation, service, roles and responsibilities.  WHO - World Health Organization WHO - World Health Organization IHR - International Health Regulations  WHO/HACCP, it is assumed that the responsibility will fall on the Operator to comply with WHO/HACCP, it is assumed that the responsibility will fall on the Operator to comply with WHO/HACCP and that no RQ would be required if confirmation from Operator is received. This would mean that there will not be a Certificate stating compliance; Operator could confirm compliance through letter.			'		(b) ASTM F2413-11 Specification for	'	
FOOD HANDLING/ SAFETY  TOHS HANDLING/ SAFETY  TOHS HOUSING TOHS HANDLING/ SAFETY  TOHS HACCP - hazard analysis critical control points As there is no standard certification implement a food safety program which is aligned with the WHO IHR and is based on HACCP principles, in terms of source, preparation, service, roles and responsibilities.  HACCP - hazard analysis critical control points As there is no standard certification requirement or process for Marine Vessels to comply with WHO/HACCP, it is assumed that the responsibility will fall no the Operator to confirm vessel procedures are aligned with WHO/HACCP and that no RQ would be required if confirmation from Operator is received. This would mean that there will not be a Certificate stating compliance; Operator could confirm compliance through letter.			·		Performance Requirements for	1	
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Column   C			·		Footwear, as amended from time	1	
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HANDLING/ SAFETY  106 workplace, the employer must adopt and implement Section G of the Sanitation Code for Canada's Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.  106 workplace, the employer must develop and implement Section G of the Sanitation Code for Canada's Foodservice Industry, published by the Canadian Restaurant and Foodservices Association, dated September 1984, other than items 2 and 11.  107 workplace, the employer must develop and implement displayed with the WHO IHR and is based on HACCP principles, in terms of source, preparation, service, roles and responsibilities.  108 workplace, the employer must develop and implement displayed with the WHO IHR and is based on HACCP principles, in terms of source, preparation, service, roles and responsibilities.  108 WHO - World Health Organization  109 WHO - World Health Organization  109 WHO - World Health Organization  100 WHO - World Health Organi			·		1	1	
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items 2 and 11.						1	
could commit compliance through letter.			1			1	• • • • • • • • • • • • • • • • • • • •
If the goal is to have a certification process for			,			'	could commit compliance un ough letter.
			'			'	If the goal is to have a certification process for
the food and catering practices, it is			·			'	·
recommended that MLC 2006 be included as			'			'	<u> </u>
an acceptable alternative standard as it is the			'			1	an acceptable alternative standard as it is the

					industry norm.
PRESSURE	TOHS	<b>41.</b> The following definitions	Replace 41 and 50 with:	Proposal broadens the	Agreed. However, it is not clear who a
SYSTEMS	41, 43,	apply in this Part.	include 41 and 50 mini	definition of "inspector"	"qualified person" in Reg 43 is referring to.
010121110	50	"inspector" means a	The following definitions apply in this Part:	to allow for a qualified	Does this mean that a pressure vessel/system
		qualified person recognized	The females apply in the feature	agent of a classification	must be constructed and installed by a
		under the laws of Canada or	"Inspector" means:	society/certifying	qualified person <u>recognized under the laws of</u>
		of a province as qualified to	a) A person recognized under the laws of Canada or of a province	authority to complete	Canada or of a province as qualified to inspect
		inspect boilers, pressure	as qualified to inspect boilers, pressure vessels or piping	inspections.	boilers, pressure vessels or piping systems? If
		vessels or piping systems.	systems; OR		so, this will likely not be the case for an
			b) an qualified agent of recognized classification society		international vessel constructed outside of
		43. Every boiler, pressure			Canada. It is suggested that the meaning of
		vessel and piping system	Where: "a recognized classification society"		qualified person in Reg 43 is clarified.
		used in a workplace must be	means a society or association for the classification of ships that is		
		constructed, tested and	recognized as a Certifying Authority under the Certificate of Fitness		It is assumed that it is intended to be an
		installed by a qualified	Regulations		"inspector" but that is not the terminology
		person.			used.
			50. In addition to the requirements of sections 47 to 49, the employers		
		50. In addition to the	shall ensure that every boiler, pressure vessel and piping system in use		
		requirements of sections 47	at a workplace is inspected by <u>an inspector</u> [replaces "qualified person"]		
		to 49, every boiler, pressure	as frequently as is necessary to ensure that the boiler, pressure vessel or		
		vessel and piping system in	piping system is safe for its intended use.		
		use at a workplace must be			
		inspected by a qualified			
		person as frequently as is			
		necessary to ensure that the			
		boiler, pressure vessel or			
		piping system is safe for its intended use.			
PORTABLE	TOHS	All portable electric tools	Replace 190 with:		Agrood
ELECTRIC	190	used by employees must	nepiace 130 with.		Agreed
TOOLS	130	meet the standards set out	Employers shall ensure that all portable electric tools used by		
TOOLS		meet the standards set out	Employers shall ensure that all portable electric tools used by		

		in CSA Standard CAN/ CSA-	employees are in accordance with one of the following:	
		<u>C22.2 No. 60745-2</u> , in its		
		most recent version and	a) CSA Standard CAN/ CSA-C22.2 No. 60745-2, as amended from time	
		applicable to the particular	to time and applicable to the particular tool;	
		tool.	b) UL <u>60745-2</u> , , as amended from time to time and applicable to the	
			particular tool; OR	
			c) IEC <u>60745-2</u> , as amended from time to time and applicable to the	
			particular tool.	
BRIDGE	TOHS5	This Part does not apply to	Replace preamble to 52 with:	Agreed
LIGHTING	2	the bridge of a drilling unit		
		or floating production	This Part does not apply in respect of	
		facility.	o the bridge and exterior deck of a vessel, <b>the bridge of a</b> mobile	
			drilling unit or <b>the bridge of a</b> floating production facility where	
ABRASIVE	TOHS	Abrasive wheels must be	lighting levels may create a hazard to navigation.	Agrood
WHEELS	204		Replace 204 with:	Agreed
WHEELS	204	used only on machines	1. Employers shall ensure that abrasive wheels are	
		equipped with machine guards, mounted between	<ol> <li>Employers shall ensure that abrasive wheels are</li> <li>(a) used only on machines equipped with machine guards,</li> </ol>	
		-	(b) mounted between flanges,	
		flanges, and operated in accordance with ANSI	(c) operated in accordance with manufacturer's specifications, and,	
		Standard B7.1-2010, The	(d) maintained in accordance with manufacturer's specifications.	
		Use, Care and Protection of	2 Employers shall legibly past an avery abrasive wheel the maying up	
		Abrasive Wheels, published	2. Employers shall legibly post on every abrasive wheel the maximum	
		in 2010.	number of revolutions per minute of the wheel.	
			2 Employers shall legibly nest an ayery grinder the mayimum number	
			3. Employers shall legibly post on every grinder the maximum number	
			of revolutions per minute of the grinder.	
			4. Employers shall ensure that no person operates a grinder with an	
			abrasive wheel unless the grinder is rated to provide a number of	
			revolutions per minute equal to or less than the rating of the	
			abrasive wheel.	
			abiasive wileer.	

			5. An employer shall ensure that, before the installation of an abrasive wheel, the abrasive wheel is inspected by a competent person for flaws, defects or cracks.		
MECHANICAL POWER TRANS- MISSION APPARATUS	TOHS 206	Equipment used in the mechanical transmission of power must be guarded in accordance ANSI Standard ANSI B11 B15.1-2000, Safety Standard for Mechanical Power Transmission Apparatus, published in 2008.	<ul> <li>Replace 206 with:</li> <li>Employers shall ensure that equipment used in the mechanical transmission of power must be guarded in accordance with one of the following: <ul> <li>a) CSA Z432 Safeguarding of Machinery, as amended from time to time.</li> <li>b) ANSI Standard ANSI/AMT B11 B15.1 Safety Standard for Mechanical Power Transmission Apparatus, as amended from time to time;</li> <li>c) EN 953 Safety of Machinery. Guards, General requirements for the design and construction of fixed or moveable guards, as amended from time to time; OR</li> <li>d) ISO 14120, Safety of machinery - Guards - General requirements for the design, construction and selection of fixed and movable guards, as amended from time to time.</li> </ul> </li> </ul>		Agreed
CRANES/ LIFTING EQUIPMENT	TOHS 209(2)	209(2) The design and construction of offshore cranes must meet the standards set out in API Standard API Spec 2C, API Specification for Offshore Pedestal Mounted Cranes, Sixth Edition, published in 2004.  231(2) The operation, maintenance and inspection of offshore cranes must meet the standards set out	Replace 209(2) with:  Employers shall ensure that the design and construction of offshore cranes is in accordance with API Standard API Spec 2C, Offshore Pedestal Mounted Cranes, as amended from time to time.  Retain original wording for 231(2)	Revise reference to the most recent API Standard (and make ambulatory) which has broader applicability (exploration and production applications, heavy-lift applications and shipboard applications)	Agreed; however, it is assumed this still only applies to offshore cranes intended for transfer of materials or personnel to or from marine vessels, barges and structures, and does not apply to typical deck cranes only intended for movement of equipment/cargo around the vessel. Deck cranes are often not in accordance with requirements for offshore cranes.  It should also be noted that API 2C does not cover the use of cranes for subsea lifting and lowering operations or constant-tension systems which are applicable to construction

in API Standard API RP 2D,	and geotechnic
API Recommended Practice	most often in a
for Operation and	Statutory requi
Maintenance of Offshore	
Cranes, Sixth Edition,	DNV GL Recomm
published in 2007.	interpretation th
·	to Offshore Cran
	standard is need
	following:  Deck cranes to b
	maintained in ac
	requirements if a
	requirements ar
	inspected and m
	LOLER or ILO152
	If the vessel has
	need to meet th
	Offshore cranes
	Class rules and F
	accepted by the
	Also, subsea crais not intended f
	usually in accord
	While API 2C sta applications, it is
	offshore cranes.
	this requirement
	cranes; therefor
	of the regulation
	DNV GL Recomm
	requirements fo
	viable option in
	Page 8, TOSH 2
	Installation col
	retaining the o
ı	0 1 1 1

and geotechnical scopes. These cranes are most often in accordance with Class and Statutory requirements.

**DNV GL Recommendation**: Continue with the interpretation that this regulation is only applicable to Offshore Cranes. If a reference to a deck crane standard is needed, I would recommend the following:

Deck cranes to be tested, inspected and maintained in accordance with class and flag requirements if applicable; or if class/flag requirements are applicable, to be testing, inspected and maintained in accordance with LOLER or ILO152

If the vessel has an offshore crane, then they will need to meet this regulation or submit and RQ. Offshore cranes are usually in accordance with Class rules and RQ's for this are established and accepted by the C-NLOPB in the past without issue. Also, subsea cranes will likely need an RQ as API 2C is not intended for offshore crane... again, these are usually in accordance with Class.

While API 2C states it is applicable to shipboard applications, it is still a standard intended for offshore cranes. It is DNV GL's interpretation that his requirement is only applicable to offshore cranes; therefore, a deck crane would fall outside of the regulation and not require a RQ. DNV GL Recommendation - Attempt to have Class equirements for an offshore crane accepted as a riable option in lieu of API 2D & 2D.

Page 8, TOSH 209(2) – Under the Marine Installation column reference is made to retaining the original wording for Section

				231(2). The subject is Offshore Pedestal Mounted Cranes and Section 231(2) quotes the Recommended Practice for Operation and Maintenance of Offshore Cranes, Sixth Edition, published in 2007. Over the next five years if an Installation arrives in Newfoundland or NS waters with a later version pedestal crane than an RQ will need to be prepared to justify the equipment not complying with the 2007 standard.
ROPES,	TOHS	232. The employer must,	Revise 232/233 with:	
SLINGS &	232,	with respect to the use and	100100 202/200 Willin	The RQ's we put for this summer were in
CHAINS	233	maintenance of any rope or	The employer shall use, inspect and maintain ropes, slings, chains and	accordance with Lifting Operations and Lifting
		sling or any attachment or	other attachments used in materials handling in accordance with ASME	Equipment Regulations (LOLER 1998), not
		fitting on such a rope or sling	B30.9- Slings and ASME B30.26- Rigging Hardware.	ASME. Some of the other vessels were also in
		used by an employee, adopt		accordance with LOLER, but not all so this
		and implement the		change will still result in a number of vessels
		recommendations set out in		submitting RQ's.
		ASME Standard B30.9-2010,		
		Slings, published in 2010.		It is recommended to Include LOLER as an
		222 The second second		acceptable standard for loose lifting equipment
		233. The employer must, with respect to the use and		equipment
		maintenance of any chain		As ASME B30.9 & B30.26 are standards for
		used by an employee, adopt		operation and inspection, it is difficult to identify
		and implement the code of		one alternative guideline/standard. However, it is likely relatively easy for a vessel to demonstrate
		practice set out in <u>ASME</u>		that they will operate in compliance with ASME as
		<u>Standard</u>		it is mostly related to inspection and maintenance
				as opposed to design.  DNV GL Recommendation: Include Class and
				statutory requirements (if applicable) and LOLER as
				an acceptable standard for loose lifting equipment

## **Suggested additional Amendments**

RQF#	Title	Regulation	Section	Requirement	Notes
TBD	Elevating Devices	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	34	(1) Every elevating device and every safety device attached to it must (a) meet the standards set out in the applicable CSA standard referred to in subsection (2), to the extent that is reasonably practicable; and (b) be used, operated and maintained in accordance with the standards set out in the applicable CSA standard referred to in subsection (2). (2) For the purposes of subsection (1), the applicable CSA standard for (a) elevators, dumbwaiters, escalators and moving walks is CSA Standard CAN/CSA B44-07, Safety Code for Elevators and Escalators, published in 2007, other than clause 9.1.4; (b) manlifts is CSA Standard B311-02, Safety Code for Manlifts, published in 2012; and (c) elevating devices for the handicapped is CSA Standard B355-F09, Lifts for Persons with Physical Disabilities, published in 2009.	
TBD	Portable Ladders	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	29	(1) Commercially manufactured portable ladders must meet the standards set out in CSA Standard Z11-12, Portable Ladders, the English version of which was published in 2012. (2) Subject to subsection (3), every fixed and portable ladder must, while being used, (a) be placed on a firm footing; (b) be secured in such a manner that it cannot be dislodged accidentally from its position; and. (c) be positioned in such a manner that it is not necessary for a person to use the underside of the ladder.	

## Proposed TOHSR Amendments – December 9, 2015 -

TBD	Sound Level Meter	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	58	In this Part, "sound level meter" means an instrument for measuring levels of sound and impulse sound that meets the standards set out in ANSI Standard SI.4-1983, American National Standard Specification for Sound Level Meters, published in 2006, and is referred to in that Standard as type 0, 1 or 2.	
TBD	Fall Protection Systems	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	176	(2) The components of a fall-protection system must meet the following standards: (a) CSA Standard Z259.2.1-98, Fall Arresters and Vertical Lifelines and Rail, published in 2011; (b) CSA Standard Z259.1-05, Body Belts and Saddles For Work Positioning and Travel Restraint, published in 2010; (c) CSA Standard Z259.2.2-98, Self-Retracting Devices for Personal Fall-Arrest Systems, published in 2009; (d) CSA Standard Z259.2.3-12, Descent Devices, published in 2012; (e) CSA Standard Z259.11-05, Energy Absorbers and Lanyards, published in 2010; (f) CSA Standard Z259.12-11, Connecting Components for Personal Fall Arrest Systems (PFAS), published in 2011; (g) CSA Standard Z259.13-04, Flexible Horizontal Lifeline Systems, published in 2009; (h) CSA Standard Z259.16-04, Design of Active Fall Protection Systems, published in 2009; and (i) CSA Standard Z259.10-12 Full Body Harnesses, published in 2012;	

# Proposed TOHSR Amendments – December 9, 2015 -

TBD	Respiratory Protection	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	173	(1) Subject to subsection (4), if there is ahazard of an airborne hazardous substance or anoxygen-deficient atmosphere in a workplace, theemployer must provide a respiratory protectivedevice that is listed in the NIOSH Certified Equipment List as of September 1994, published in1994 by the United States National Institute forOccupational Safety and Health.(2) A respiratory protective device referred to insubsection (1) must be selected, fitted, cared for, used and maintained in accordance with thestandards set out in CSA Standard Z94.4-11, Selection, Use and Care of Respirators, publishedin 2011, excluding clauses 6.1.5, 10.3.3.1.2 and 10.3.3.4.2(c).	
	Breating Air for Repiratory Protection	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	173	(3) If air is provided for the purpose of a respiratory protective device referred to in subsection (1), (a) the air must meet the standards set out in clauses 5.5.2 to 5.5.11 of CSA Standard Z180.1-13, Compressed Breathing Air and Systems, published in 2013; and (b) the system that supplies air must be constructed, tested, operated and maintained in accordance with the CSA Standard referred to in paragraph (a).	
	Explosive Actuated Fastening Tools	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	194	<ul> <li>(1) All explosive actuated fastening tools used by employees must meet the standards set out in ANSI A10.3-2006, Safety Requirements for Powder-Actuated Systems, published in 2006.</li> <li>(3) Every employee who operates an explosive actuated fastening tool must operate it in accordance with the CSA Standard referred to in subsection (1).</li> </ul>	

# Proposed TOHSR Amendments – December 9, 2015 -

TBD	Safety Nets	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	31	(2) The design, construction and installation of a safety net referred to in subsection (1) must meet the standards set out in ANSI Standard A10.11-1989, Safety Nets Used During Construction, Repair and Demolition Operations, published in 1998.	
TBD	Mechanical Power Transmission Apparatus	Canada-Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations	206	Equipment used in the mechanical transmission of power must be guarded in accordance ANSI Standard ANSI B11 B15.1-2000, Safety Standard for Mechanical Power Transmission Apparatus, published in 2008.	