



Canada Energy  
Regulator

Régie de l'énergie  
du Canada

<b>APPLICANT:</b> PROJECT: Inuvialuit Energy Security Project SUBJECT: Piping Systems		<b>APPLICANT'S FILE:</b> C14386 DATE: Sept 29 2021 PAGE: 1 OF: 4	
Name of Regulation: Oil and Gas Installations Regulations (R.		Section/Sub-section/Paragraph: 35(1), 35(2), 35(a)	
<b>REQUESTING:</b> Regulatory Deviation pursuant to sub-section 54(1)(a) of Oil and Gas Operations Act			
<b>REGARDING:</b> Safety			
TYPE OF DEVIATION / EXEMPTION: Standard			
QUERY: Use of an equivalently safe and recognized standards for construction and design			
PROPOSAL: See attached			
RATIONALE: See attached			
(USE ADDITIONAL PAGES IF NECESSARY)			
<b>APPLICANT</b>			
NAME: Travis Balaski		SIGNATURE: Travis Balaski	
TITLE: Operations Lead		TEL. #: 1 403-461-6513	
Digitally signed by Travis Balaski Date: 2021.09.24 07:20:08 -06'00'			
<b>REVIEWERS</b>			
<b>OPERATOR'S CONCURRENCE (IF NOT APPLICANT)</b>			
NAME:		SIGNATURE:	
TITLE:		TEL. #: DATE	
<b>WORKPLACE OH&amp;S COMMITTEE OR REPRESENTATIVE CONSULTED (IF APPLICABLE)</b>			
NAME: Alan MacDonald		SIGNATURE: [Signature]	
TITLE: HESQ Lead		TEL. #: 463 862 4905 DATE Sept. 30/21	
<b>CERTIFYING AUTHORITY CONCURRENCE OR COMPETENT INDEPENDENT THIRD-PARTY FOR ONSHORE<sup>1</sup></b>			
PROPOSAL MEETS REQUIREMENTS OF THE OIL AND GAS CERTIFICATE OF FITNESS REGULATIONS, SECTION 3(2)(a)(ii)			
NAME: Nyssa Moore		SIGNATURE: Nyssa Moore	
TITLE: Contract Chief Inspector		TEL. #: 403 607 5152	
		DATE Sept 22 2021	
Digitally signed by Nyssa Moore DN: cn=Nyssa Moore, o=nsi, email=nyssa.moore@summitinspection.ca, c=CA Date: 2021.09.22 16:09:27 -06'00'			
<b>FOR USE BY CHIEF CONSERVATION OFFICER OR CHIEF SAFETY OFFICER:</b>			
Date Received:			
Application No.:			

<sup>1</sup> Oil and Gas Certificate of Fitness Regulations is applicable to installations at offshore production or drilling sites. For onshore areas, this section shall be signed by a competent independent third-party e.g., Professional Engineer.

## IESP Deviation Request #02 – OGOA IR Section 35

### Proposal

It is proposed that the requirements in the following table as specified in Section 35 of the Oil and Gas Operations Act – Oil and Gas Installations Regulations 2014 (OGO IR) are replaced with the following ASME and CSA standards. For the Inuvialuit Energy Security Project (IESP), the Inuvialuit Petroleum Corporation (IPC) propose that the codes that will be used for design, fabrication, and installation of pressure piping, boilers and pressure vessels, and pipelines will be as stated in the following table:

Component	Current Requirement	Proposed Deviation	Section
Pressure Piping	API RP 14E (Recommended Practice for Design and Installation of Offshore Production Platform Piping Systems)	<ul style="list-style-type: none"><li>• ASME B31.1 Pressure Piping (current code*)</li><li>• ASME B31.3 Process Piping (current code*)</li><li>• ASME B31.5 Refrigeration Piping and Heat Transfer Components (current code*)</li><li>• ASME B31.9 Building Services Piping (current code*)</li></ul>	35(1)
Boilers and Pressure Vessels	<ul style="list-style-type: none"><li>• ASME BPVC I, II, IV, V, VII, VIII, and IX</li><li>• CSA B51-M1991 Boiler, Pressure Vessel, and Pressure Piping Code</li><li>• API 12J Specification for Oil and Gas Separators</li></ul>	<ul style="list-style-type: none"><li>• ASME BPVC, all sections (current code*)</li><li>• CSA B51 Boiler, Pressure Vessel, and Pressure Piping Code (current code*)</li><li>• CSA B52 Mechanical Refrigeration Code</li><li>• In cases where CSA B51 and ASME BPVC conflict, CSA B51 shall take precedence.</li></ul>	35(2)
Pipelines	<ul style="list-style-type: none"><li>• CSA CAN/CSA-Z184-M92 Gas Pipeline Systems</li></ul>	<ul style="list-style-type: none"><li>• CSA Z662 Oil &amp; Gas Pipeline Systems (current code*)</li></ul>	35(3)(a)

It is further proposed that any updates to current codes (as identified above with an asterisk) will be automatically adopted following the expiry of twelve (12) months from the date on which the amendment or replacement is published, as per standard industry practice.

Our proposal to automatically adopt updates is being modeled from the Alberta legislation under the Safety Codes Act section 4 (note that it refers to the Alberta Gazette, which is not applicable, but this excerpt is intended for reference only):

*(4) If a code, standard or body of rules is declared in force as amended or replaced from time to time, any amendments to the code, standard or body of rules or replacement of the code, standard or body of rules comes into force on the first day of the month following the expiry of 12 months after the date on which the amendment or replacement is published, unless the Minister publishes an order in Part I of The Alberta Gazette declaring (a) that the amendment or replacement will not be in force on the expiry of 12 months following the date on which the amendment was published, or (b) that the coming into force of the amendment or replacement is to occur on an earlier or later date.*

The versions listed above in the table and below in Rationale are the Codes in force in September 2021 and are the documents IESP shall follow for the duration of the engineering, fabrication, and installation of the project.

## Rationale

### Pressure piping

The use of ASME piping codes would be safer and more applicable to this installation.

API RP 14E required in OGOA IR Section 35(1) is a recommended practice, and not a code of construction, so the details in it do not cover all technical design details that would normally be covered in an engineered design specification. It is also intended for design temperatures greater than -20°F, which is not as low as the design range required for the IESP (-50°F). Lastly, it is also intended for offshore production, and the IESP is an onshore project.

The proposed ASME Codes are well recognized internationally. The Codes are reviewed and maintained every two years and consider new material usages (new problems with old materials, such as the migration of used car parts into recycled metals, which affect the factors used to design safe piping systems), and many more considerations that are mandatory for ensuring safe design. IPC maintain that utilizing a recognized and regularly updated code will be safer.

### Boilers and Pressure Vessels

The use of more current Codes and the use of all sections of ASME BPVC will be safer and more aligned with current industry practice and knowledge.

Though multiple ASME codes are referenced in the current regulation (OGOA IR 35(2)), our Deviation Request will encompass and bring in numerous ASME boiler and pressure vessel codes, including ASME BPVC XIII (Rules for Overpressure Protection), which is an essential design code that has taken the overpressure protection requirements that were previously in ASME BPVC I, IV, and VIII and consolidated them into a new section. In addition, by referring to ASME BPVC in general, it removes the requirement to define ASME VIII Division 1 separate from other divisions, and simply includes all divisions.

The current CSA B51 is dated 2019, and the 1991 version of the CSA B51 referenced in OGOA IR 35(2) is quite outdated. The most current version of CSA B51 would be best followed for the safest approach for the installation and design of pressure equipment suitable for a Canadian jurisdiction, and therefore should take precedence of the above ASME codes.

Similarly, API 12J has not had a new release since 2008 and defines a jurisdictional break wherever ASME BPVC VIII Division 1 applies. Our proposal to reference ASME BPVC in general will therefore include API 12J. ASME BPVC is updated regularly and will remove any issues with the out-of-date specification and conflicting requirements between the two specifications.

### Pipelines

CSA Z185-M92 has been withdrawn and superseded by CSA Z662. Therefore, IPC propose to use CSA Z662 for this installation.

## Updates

Due to the release of codes to adapt to new technologies and requirements at regular intervals, and IPC's desire to meet the most current and safe modes of industry practice and standards, an automatic adoption is proposed following the expiry of twelve (12) months from the date on which the amendment or replacement is published. This allows for the jurisdictional authority to review any changes released, and mend or disallow any updates from CSA or ASME that are not in accordance with the intended regulatory requirements.

## Closure

No negative consequence to health, safety, environment, or resource conservation would be reasonably expected by granting this deviation.

IPC maintain that safety, environmental protection, and resource conservation would be enhanced due to adherence to more current, applicable, and stringent codes proposed in this deviation request.