



Canada Energy  
Regulator

Régie de l'énergie  
du Canada

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To: All Companies under the Jurisdiction of the Canada Energy Regulator

**Safety Advisory SA 2024-01**  
**Pipeline Fitting Materials Quality Assurance**

Please find attached Safety Advisory SA 2024-01.

The Canada Energy Regulator (**CER**) expects regulated companies to take all reasonable care to ensure the safety and security of persons, the safety and security of regulated facilities and abandoned facilities, and the protection of property and the environment.

Safety Advisories are issued periodically to inform the oil and gas industry of an identified safety or environmental concern with the goal of preventing the occurrence of related incidents. A Safety Advisory serves to highlight CER requirements, and to convey the CER's expectation that regulated companies take appropriate actions to mitigate any potential impacts to people or the environment.

This letter is to notify you that the CER has continued to receive notifications from regulated companies or industry representatives that have identified instances of pipeline components not meeting material specifications on pipelines under the CER's, or other regulatory bodies' jurisdiction. While no failures associated with these nonconforming components have been reported on CER-regulated systems, the CER is of the view that similar components may enter the supply chain and be in use elsewhere within the industry.

The CER directs your attention to the attached Safety Advisory and expects that it will be given wide circulation to company personnel and contractors involved in procurement, construction, integrity management, maintenance and operation.

If you have any questions regarding this Safety Advisory, please contact the Director of Research and Innovation through our toll-free number at 1-800-899-1265.

Best regards,

*Signed by*

Tracy Sletto  
Chief Executive Officer

Enclosure

**Canada**



## **Safety Advisory - Nonconforming Components**

### **Purpose of the Safety Advisory**

The Canada Energy Regulator (**CER**) has identified several instances where components failed to meet required standards. Although manufacturers' documentation often indicated compliance, subsequent testing revealed non-compliance with specific material specifications.

It is important to note that there have been no failures on in-service CER-regulated pipelines because of these components not meeting required specifications. However, the presence of nonconforming components in the supply chain and their subsequent installation remains a significant concern.

CER-regulated companies, in accordance with Order MO-003-2018, must notify the CER within 15 days if they discover any pipe or component that does not meet industry standards or company specifications.

### **Background**

Issues with nonconforming pipe and components have been a longstanding concern for the CER and other jurisdictions that regulate other energy infrastructure. In response to ongoing issues within Canada, the National Energy Board (now the CER) issued Order MO-001-2016 in February 2016, and subsequently Order MO-003-2018 in January of 2018 enhancing reporting requirements and requiring companies to report any materials that did not meet standards, along with mitigation measures and corrective action plans.

As a result of these Orders and the associated reporting requirements, the CER has become aware of several recent instances of pipeline system components not meeting material specifications on pipelines regulated by CER or other regulators. All instances that have been reported include material toughness issues that have been traced back to sub-suppliers or manufacturers.

The CER has also become aware of materials entering the supply chain that originate from a location different than what is being represented on the markings or documentation. In addition, in some cases material test reports used to help certify conformance to a standard, have not complied with the mechanical properties specified in the standard or did not represent the mechanical properties of the actual materials being supplied.

### **CER Recommendations**

The CER requires that regulated companies review their materials procurement quality assurance and quality control processes to verify that they are purchasing products from an approved vendor. And that the vendor, which can be either the manufacturer or a

distributor, has controls in place to evaluate and monitor the quality of materials provided by any manufacturer or sub-suppliers.

The CER requires all regulated companies to:

- **Have Quality Assurance Programs:** Ensure robust quality assurance programs are in place in line with Section 15 of the Canadian Energy Regulator Onshore Pipeline Regulations to prevent nonconforming materials from entering the supply chain.
- **Identify and Test:** Upon receipt of this Safety Advisory, if a company deems that they may have obtained products that have not undergone a robust quality assurance process, to conduct thorough testing on those identified products or components—whether in operation or storage — for compliance with mechanical property<sup>1</sup> requirements.
- **Report Compliance:** Adhere strictly to the reporting requirements of Order MO-003-2018, including notifying the CER within 15 days of discovering non-compliant materials.

The CER also expects companies to consider the additional requirements and guidance in *CSA EXP13-21 Quality assurance requirements for pipe and components* to assure that the quality of the pipe and components meets the minimum standard requirements. The Canadian Standards Association (**CSA**) EXP13-21 was written by a cross section of industry subject matter experts to proactively establish additional requirements for the manufacturing, testing and procurement processes of pipe and components. CSA EXP13-21 is intended to complement current standards and regulations to close any potential gaps that could lead to safety and quality issues. A review of the causes of the recent reports of nonconforming materials identified that if the CSA EXP13-21 had been followed, the likelihood of having the reported nonconforming materials entering the supply chain would have been reduced.

Other background information on how the CER is committed to this initiative can be found on the CER's website under Quality Assurance of Pipeline Fittings at: [CER – Quality Assurance of Pipeline Fittings \(cer-rec.gc.ca\)](http://cer-rec.gc.ca).

The CER is still conducting investigations on recently reported nonconforming materials. Once these investigations are complete, the CER may provide additional information and updates and, if applicable, may provide more specifics to help companies narrow their own oversight. However, this should not prevent companies from using the information provided in this Safety Advisory immediately to review and, if applicable, revise and improve their quality assurance program to proactively identify any material quality issues.

The CER is committed to ensuring the safety and reliability of pipeline operations and will continue to monitor compliance and provide guidance to the industry.

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<sup>1</sup> Mechanical properties of materials are the characteristics that dictate how a material responds to mechanical forces, such as strength, toughness, and ductility.

**Further information**

If you have any questions regarding this Safety Advisory, please contact the CER's Director of Research and Innovation by email at [SafetyandInformationAdvisories@cer-rec.gc.ca](mailto:SafetyandInformationAdvisories@cer-rec.gc.ca) or by phone at 1-800-899-1265.