



# GENERAL ENGINEERING REQUIREMENTS FOR BOILERS AND PRESSURE VESSELS REPAIR AND ALTERATION PROCEDURE

REPAIR   
or  
ALTERATION

AB-230 2011-09

1. **Name and Address of Organization** performing Repair/Alteration KOOTENAY INDUSTRIES LTD.  
5914 - 86 AVENUE S.E., CALGARY, ALBERTA AQP No. & Expiry Date AQP-1479 & 2027-02-11  
**Location of Installation** LSD: 5-2-76-12W6
2. **Name of Owner** Entropy Inc.  
**Address** 2020, 600 - 3rd Avenue SW, Calgary, AB, T2P 0G5
3. **Vessel Manufacturer's Name** KOOTENAY INDUSTRIES LTD. **CRN** W0429.2  
**A#:** 638376 **National Board #:** N/A **Serial No.:** 12-035-CB **Owner Equip No.:** \_\_\_\_\_
4. **Original Design Conditions:**  
 i) Vessel/Shellside/Boiler: Max Allowable Working Press. 5020 Min/Max Design Temp -20F / 200F  
 ii) Tubeside: Max Allowable Working Press. \_\_\_\_\_ Min/Max Design Temp /  
 iii) Other: Max Allowable Working Press. \_\_\_\_\_ Min/Max Design Temp /
5. **Original ASME Code Edition and Addenda:** ASME Sec. B31.3 Year 2010 Addenda \_\_\_\_\_
6. **Repair/Alter. Description of Work.** Step by step description of repair/alteration method. Attach additional sheets as needed. If added: Sheet # \_\_\_\_\_ thru \_\_\_\_\_  
**Reference Drawing #:** 12-031-B REV.0
- 7a. **UT Report enclosed:** Yes:  No:  If no, explain: \_\_\_\_\_
- 7b. **Out of roundness report enclosed** (for external pressure only):  
 Yes:  No:  If no, explain: \_\_\_\_\_
8. **Heat Treatment:** Preheat Temp N/A Postweld HT (Temp./Time) 1150F / 60min/hr
9. **Non Destructive Examination** (Specify type and extent).  
UT
- 10a. **Pressure Test**
- |                | Vessel/Boiler/Shellside     | Tubeside/Other |
|----------------|-----------------------------|----------------|
| i) Hydrostatic | <u>7975 PSIG (original)</u> | _____          |
| ii) Other Test | _____                       | _____          |
- 10b. **Test procedure enclosed:** Yes:  No:  If no, explain: No hydrotest required for this re-rating
- 11 **ADDITIONAL REMARKS/COMMENTS:** \_\_\_\_\_
12. Anticipated completion date: March 2026

SIGNATURE OF APPLICANT: \_\_\_\_\_

DATE: 2026-03-04PRINT NAME: Helen Yu

**For ABSA use only: Repair / Alteration Procedure accepted**

**CRN:** \_\_\_\_\_ **A#:** \_\_\_\_\_ **Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_



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## Supplemental Sheets:

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Repair/Alteration procedures:

1. UT examination to get latest coil thickness.
2. Run calculations to validate the MAWP to 2990 PSIG at 650°F.
3. Attach repair/alteration name plate on the vessel.

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CRN: \_\_\_\_\_ A#: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_