

SUMMER LAY-UP FOR HEATING BOILERS

In Alberta's cold climate, heating boilers are a necessity of life. An unexpected boiler failure during the winter months can be more than a simple inconvenience: winter's sub-zero temperatures can allow pipes to freeze, damaging property and having the potential to endanger life at a time of year when people rely on the buildings they heat for shelter from the cold.

Some boilers are not required to operate during warmer periods, and when they are taken out of service for extended periods of time, owners should consider proper "lay-up" in order to reduce the risk of accelerated corrosion during storage. Lay-up of a boiler is primarily intended to protect it from damage, but also provides a convenient opportunity for inspection and maintenance which can increase its efficiency, make it more reliable, and extend its service life.

Two of the most common lay-up methods are wet lay-ups and dry lay-ups, with advantages and disadvantages to each.

A wet lay-up involves filling the boiler with water and sealing it off to prevent the ingress of air. Typically, the water used is chemically treated with an oxygen scavenger to prevent dissolved oxygen from corroding its internal surfaces. In some cases, a positive-pressure nitrogen blanket is applied before the boiler is sealed, further reducing the risk of air ingress and accidental oxygen exposure. Wet lay-ups are most suited to short-term storage, as the presence of stagnant water can increase the risk of corrosion if water treatment is inadequate or if oxygen is somehow introduced during the storage period. A wet lay-up also carries the risk that freezing damage can occur if the boiler is exposed to sub-zero temperatures, though this risk is often mitigated by the fact that boilers tend to be taken offline during warmer months of the year. The main advantage of a wet lay-up is that the boiler is already filled with water, and can often be returned to service quickly if it is needed on short notice.

A dry lay-up requires significantly more work to take the boiler offline and to start it back up, but is more suited to long-term storage, and does not run the risk of damage if the boiler is subjected to freezing temperatures. It involves draining the boiler and thoroughly drying it out, typically by circulating hot air or by introducing a chemical desiccant. The main disadvantage of a dry lay-up is that the boiler needs to be refilled with water before it can be placed back in service, which for a large boiler tends to be time-consuming, making a dry lay-up less suited to equipment that might be needed on short notice.

Laying up a boiler for storage can sometimes introduce unexpected risks to the equipment and to personnel, and owners are advised to consult a qualified specialist with regard to developing lay-up procedures suited to their circumstances. Sections VI and VII of the ASME Boiler and Pressure Vessel Code also contain non-mandatory guidance and relevant warnings related to boiler maintenance, including lay-up procedures; although in all cases, any instructions or recommendations provided by the boiler manufacturer need to be heeded. Owners are reminded that in accordance with the Safety Codes Act, they are ultimately responsible for the safe operation and maintenance of their equipment. ❖

IMPORTANT INFORMATION REGARDING FEES

After nearly a decade of holding the line on fee increases, in 2022 ABSA conducted a thorough financial review and has determined that a fee increase is now necessary to support the longevity of the organization.

Effective September 1, 2022, all ABSA fees will increase by 7.1%, in line with the Alberta Consumer Price Index (CPI) increase from May 2021 to May 2022.

ABSA's Fees were last increased by 2.4% in January, 2013 based on Alberta CPI increase from August 2008 to August 2012. Alberta CPI increased by 24.84% from August 2012 to May 2022.

Further information can be found on the ABSA website. If you have any questions, feel free to reach out to communications@absa.ca. ❖

EXPIRY EXTENSION FOR THE PRESSURE WELDERS REGULATION

At the beginning of May, the Pressure Welders Regulation was amended only to extend its expiry date from May 31, 2022, to May 31, 2027.

The Pressure Welders Regulation is a regulation under the Safety Codes Act that establishes rules applicable to welding pressure equipment in the province of Alberta. It first establishes a basic prohibition against welding a boiler, pressure vessel, pressure piping system, or fitting, and then extends this responsibility to employers and equipment owners as well, prohibiting them from directing others to weld on these types of equipment without being legally qualified. The bulk of the regulation then establishes various certificates of competency, such as certificates for grade 'B' and 'C' pressure welders, machine welding operators, pressure tack welders, and welding examiners. Anyone involved in welding on pressure equipment in the province in any capacity, or in employing others do so, should be familiar with this regulation in order to ensure that they are in compliance.

It is a common practice for regulations to be written with an expiry date to ensure that they are kept current. In this case, the purpose for the expiry date is described directly in the regulation, in section 25: "*For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, ..., this Regulation expires on May 31, 2027.*" These types of provisions ensure that Alberta pressure equipment owners and other stakeholders are not left to contend with legislation that is out of date or which has otherwise been neglected or become irrelevant. As mentioned above, this recent amendment affected only its expiry date, and no other changes were made to its content. ❖

AB-516: A USER'S GUIDE FOR THE PRESSURE EQUIPMENT SAFETY REGULATION

One of ABSA's functions is to educate Alberta stakeholders with respect to the province's pressure equipment safety legislation, in order to facilitate compliance with the law. Although this is typically accomplished through regular offerings of seminars, some of ABSA's AB-500-series documents have an education focus, providing guidance with respect to Alberta's legislation and applicable codes and standards. One such document is the AB-516: Pressure Equipment Safety Regulation User Guide, which for more than 15 years has sought to educate and to serve as an unofficial commentary on the Pressure Equipment Safety Regulation, one of Alberta's main regulations pertaining to pressure equipment.

AB-516 was initially published in 2016 and has been continually maintained as the regulation has been amended over the years. The document steps readers through the regulation, section by section, expanding on it and providing background information and commentary on the established requirements. It is intended to serve as a companion to the regulation and can serve as a first-line resource when readers have questions or would like further information.

It should be noted that while the regulation has the force of law in Alberta, this user's guide comprises unofficial commentary and non-binding interpretations of the law. It is not intended to be used in place of the legislation, and should not be used as a substitute for legal advice. In all cases, an official and up-to-date copy of the original legislation should be consulted with respect to determining exact wording and specific requirements.

AB-516: Pressure Equipment Safety Regulation User Guide, Edition 3, Revision 0 is available on ABSA's website at absa.ca, where it is listed among other AB-500-series requirements and guidance documents. These documents can be found by navigating to 'AB-500 Series' in the main 'Forms & Publications' drop-down menu at the top of any page. ABSA is committed to maintaining and updating the document as the legislation is amended from time to time, and as the industry evolves. Feedback is always welcome with respect to the document's usefulness and clarity, and can be directed by email to tag@absa.ca. ❖

ABSA ONLINE DIRECTORIES

ABSA provides a number of online directories on its website that facilitate third-party verification of ABSA-certified personnel, including power engineers, in-service inspectors, welding examiners, grade 'B' pressure welders, and machine welding operators. These directories allow searching by name or by file number, and are kept up to date with the types of certificates of competency issued to each individual, and their expiry dates.

Over the last couple of years, there have been several instances where these online directories have helped Alberta pressure equipment owners prevent individuals from using falsified credentials, and they have come to be recognized by ABSA and industry as effective tools in preventing fraudulent activities. An uncertified individual performing any kind of work on pressure equipment for which legislation requires a certificate of competency is considered a safety risk to owners, workers, the environment, and the general public.

These directories are available on ABSA's website at absa.ca, under the 'Directories' navigation menu. ❖

DOCUMENTS ISSUED BY ABSA

The following documents issued by ABSA are linked below, and available at www.absa.ca.

2022-04-04 – [IB22-002: Interpretation: Pressure Equipment Safety Regulation Section 22: Changes to a Registered Design](#), was issued to provide guidance with respect to registration requirements when changes are made to registered designs.

2022-04-07 – [IB22-003: Interpretation: Declaration of Conformity as Alternative to Statutory Declaration](#), was issued to introduce a 'Declaration of Conformity' as an alternative to a Statutory Declaration, in order to avoid the requirement for a notarized signature when registering fittings.

2022-04-14 – [AB-528: Requirements for Reduced Supervision of Power Plants, Thermal Liquid Heating Systems, and Heating Plants, Edition 4, Revision 0](#), was issued with minor editorial changes.

2022-04-28 – [AB-536: Requirements for the Integrity Management of Grade 91 Steel Used Above Currently-Permitted Allowable Stresses, Edition 2, Revision 0](#), was reaffirmed with no material changes.

2022-05-10 – [IB22-006: Interpretation: Owner's Inspector for Piping Construction](#), was issued to clarify the selection of an 'Owner's Inspector' for ASME B31.1 and B31.3 piping systems constructed by engineering procurement companies (EPCs).

2022-05-10 – [IB22-007: Interpretation: Random Non-Destructive Examination \(including Radiography\) for a Designated Lot of ASME B31.3 Piping](#), was issued to clarify code requirements with respect to random radiography of split lots of piping.

2022-05-20 – [IB22-008: Interpretation: Start of Construction Prior to Confirmation of Design Registration](#), was issued to clarify issues relating to the commencement of construction before design registration is obtained, including with respect to permissibility and to potential liability for design errors.

Other documents have been updated with editorial and other minor changes. ❖

CAUTION

Previous issues of The Pressure News may contain information which is outdated or no longer valid. Please be cautious when using information from old articles.

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