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2015 ACI/CSA B51 AND B52 ANNUAL MEETINGS

ABSA was honored to host, on behalf of the Government of Alberta, the annual Association of Chief Inspectors and CSA B51 and B52 Technical Committee meetings at the Rimrock Resort Hotel in Banff, Alberta August 17 through 21.

The Association of Chief Inspectors (ACI) comprises the chief boiler inspectors (howsoever named) from every Canadian province and territory, as well as one representative from each of the National Board of Boiler and Pressure Vessel Inspectors and the American Society of Mechanical Engineers (ASME). ACI meets annually, with each jurisdiction taking turns hosting. The meeting was last held in Alberta in 2002. The purpose of the meetings is to share information and to promote a harmonized approach to the application of adopted codes and standards.

The CSA B51 & CSA B52 Technical Committee (TC) members are industry and regulator subject matter experts that participate in CSA Group's accredited consensus standard process for managing the CSA B51 *Boiler, pressure vessel and pressure piping code*, and CSA B52 *Mechanical Refrigeration Code*.

Next year's meetings will be held in St. Andrews by-the-Sea, New Brunswick, August 22-25, 2016.

On behalf of all the committee members, guests and observers, ABSA wishes to express a thank you to the sponsors who's generous support helped make the event a success.

Sponsors listed in alphabetical order: ACI Central; Alberta Council of Turnaround Industry Maintenance Stakeholders (ACTIMS); Alberta Pressure Vessel Manufacturers' Association (APVMA); The Boiler Inspection and Insurance Company of Canada (BI&I); The Canadian Boiler and Machinery Underwriters' Association (CB/MUA); IHS; International Brotherhood of Boilermakers; International Pressure Equipment Integrity Association (IPEIA); The National Board of Boiler and Pressure Vessel Inspectors; Safety Codes Council; Saskatoon Boiler Mfg. Co. Ltd. ❖

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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Previous issues of The Pressure News may contain information which is outdated or no longer valid.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.

ABSA BOARD OF DIRECTORS POSITION

The Board of Directors has the principal responsibility for fulfillment of the organization's mission and legal accountability for its operations. The Board's focus is on three main functions: maintain an effective connection with ABSA's stakeholders and assess the environment to understand current issues and challenges; develop and maintain governing policies concerning the organization's end results; evaluate organizational performance to assure the organization is operating in accordance with the Board's policies.

We are currently looking for a new member to represent the workforce education sector of our industry. The ideal candidate will possess senior management and administration experience related to the education and certification of the Alberta workforce in power engineering and/or pressure welding. For more information visit the careers section of our website or contact ABSA human resources at 780-437-9100 or hr@absa.ca. ❖

CODE UPDATE SEMINAR

The agenda for the annual ABSA Code Update seminar is now available on the ABSA website (www.absa.ca). Highlights include:

Design Registration Process Changes	Codes and Standards Updates
Alberta Safety Codes Act & Pressure Equipment Regulations Updates	Manufacturer's Data Report for Pressure Vessels (AB-25) Update
Overview of ASME B31.3 Code 'Process Piping'- 2014 Edition Changes	Changes to CSA Z662 Oil & gas pipeline systems
ASME Boiler & Pressure Vessel Codes, 2015 Edition Updates (Section I, IV, VIII-1, VIII-2 and IX)	Overview of New or Revised AB- 500 Documents & Information Bulletins
	Engineered Pressure Equipment Enclosures

It is only a few weeks until the annual ABSA Code Update seminars. The Edmonton and Calgary sessions of this seminar are now full. Please contact Nancy Martinez at training@absa.ca if you would like to be added to the waitlist for the Edmonton seminar and/or the Calgary seminar.

Registration is still open in Red Deer but seating is limited. Register as soon as possible if you plan on attending.

Edmonton: October 09, 2015 *Full

Four Points by Sheraton - Edmonton South , (7230 Argyll Road Edmonton, AB)

Calgary: October 16, 2015 *Full

Best Western Port O'Call, (1935 McKnight Blvd. NE Calgary, AB)

Red Deer: October 23, 2015

Radisson Hotel Red Deer, (6500 67 Street Red Deer, AB)

To download a copy of the registration form, please click [Seminar Registration Form \(AB-136\)](#).

Please contact training@absa.ca for additional information. ❖

FREEZING OF PRESSURE EQUIPMENT

Again, we want to emphasize that Alberta can get very cold in winter months. And, when the temperature gets low, things tend to freeze and pressure equipment, if not properly prepared, would likely be damaged resulting in significant financial losses both in property and plant down time. Worse still, such incidents may have huge safety implications, potentially causing injuries and deaths.

Over the last few years, we have received a number of incident reports of damage to pressure-retaining components from the freezing of water or other fluids. There were also reports of significant overpressure of equipment because the freezing isolated the pressure equipment from its overpressure protection. Fortunately, in the last five years, there were no serious injuries and no fatalities as a result of these incidents.

Over the course of four years, one owner reported 15 freezing incidents to ABSA. Fortunately, no one was hurt. However, the related costs of repairing the affected equipment and the lost production time ran into the millions. Of the 15 incidents:

- 6 were due to pressure equipment being blocked in full of water
- 6 were due to malfunctioning or inoperable heat tracing
- 2 were due to improperly designed drains
- 1 was due to a steam trap malfunction

In order to help mitigate these occurrences, it is important to implement an effective pressure equipment winterization program to prevent process accidents. It is also imperative that any pressure equipment affected by freezing of the contained fluid be taken out of service immediately. If freezing has been suspected or observed, the pressure equipment or fittings involved must not be placed back into pressure service without proper inspection and integrity evaluation. The use of damaged components in pressure service can be highly hazardous and components damaged by freezing can not likely be repaired. As well, equipment that may have been over pressured must be assessed for continued safe operation. ❖

DOCUMENTATION FOR UNFINISHED PRESSURE EQUIPMENT

In the current economic climate, we understand that certain projects are being put on hold. As a result, construction of some pressure equipment for these projects is being halted before completion. Other equipment is completed, but the equipment is put into storage for the foreseeable future.

Irrespective of what stage of construction these boilers, pressure vessels or pressure piping systems are in, it is critical that the work-in-progress be fully documented to its current condition and that all records be properly certified and traceable. As well, the equipment, whether completed or not, must be laid-up properly to ensure that there will be no environmental or storage damage.

Without proper documentation, such as traceable and certified records, affected equipment can not be completed once construction resumes. Essentially, the equipment will be scrap as it can not be placed into pressure service.

There have been cases where the construction of a pressure vessel was halted and stored without the proper documentation and proof of Authorized Inspector sign-offs. When construction resumed a few years later, traceable records were not available and additional testing to prove full code compliance would have been too costly, both in time and money. Ultimately, this resulted in the vessel being scrapped. ❖

TIME TO START-UP HEATING BOILERS

With the winter heating season once again fast approaching, it is time to start getting the boiler ready for winter after a lay-up period. Defective equipment or incorrect equipment operation could lead to many hazards including explosion or carbon monoxide poisoning. Following proper Maintenance Procedures, when combined with using effective Start Up, Operation, and Shutdown Procedures, will help to ensure safe operation throughout the heating season.

Before placing the boiler into service for the season, the entire system should be checked by certified personnel. At this time a review of the following should also be completed:

- 1) Operating Manuals
- 2) Maintenance during summer lay-up
- 3) Start-up checks after summer lay-up
- 4) Normal start-up
- 5) Normal shutdown
- 6) Abnormal Operation/Emergency Shutdown Procedure

As regards the boiler operation, the Power Engineers Regulation, Section 4(3) states:

If a heating plant is required to be under general supervision, the power engineer in charge of the plant:

- (a) *must supervise the heating plant in accordance with the recommendations set out in the ASME Boiler and Pressure Vessel Code, Section VI, Recommended Rules for the Care and Operation of Heating Boilers, as declared in force under the Act,*
- (b) *must conduct checks of the heating plant's equipment, twice within each 24-hour period and at least 7 hours apart, while the heating plant is in operation,*
- (c) *must update and maintain the log book in accordance with section 6,*
- (d) *must ensure that a competent person is on the heating plant site for start up of the heating plant, and*
- (e) *may provide supervision to no more than 2 heating plants unless authorized to do so by the Administrator.* ❖

2016 SEMINAR SCHEDULE

The 2016 Seminar Schedule is now available on the ABSA website (www.absa.ca) with dates available in both Edmonton & Calgary. The schedule features our popular public seminars, many of which have been recently revised and updated.

To view the 2015/2016 dates, please visit our website at: [Training and Seminars](#)

To download a copy of the registration form, please click [Seminar Registration Form \(AB-136\)](#).

Please contact training@absa.ca for additional information. ❖

FALSIFIED WELDER PERFORMANCE QUALIFICATION CARDS

ABSA was recently involved in another investigation involving the use of a falsified welder performance qualification (PQ) card for welding performed in Alberta. The falsified card was discovered when it was compared to the Welding Qualification Record document.

The *Pressure Welders Regulation* AR 169/2002 Section 2(1) states:

Prohibitions

2(1) No person shall weld a boiler, pressure vessel, pressure piping system or fitting by any method, unless the person holds a certificate of competency, including a performance qualification card, that specifically authorizes the person to weld the pressure vessel, boiler, pressure piping system or fitting and authorizes the method used by the person.

As result of the investigation, the welder's Grade B Pressure Welder Certificate of Competency was suspended by the Administrator.

This article serves as a reminder that any welding performed on pressure equipment must be done by certified and competent welders. All owners must ensure due diligence is exercised by verifying that all welders have valid and current PQ cards.

In 2014 another welder was found with falsified performance qualification cards and the Administrator also issued an alert (IB14-015) that blank pressure welder performance qualification cards were stolen in a break-in. It is important for employers and owners to exercise due diligence in verifying qualifications and to advise ABSA about anything that is questionable. ❖

CANADIAN POWER ENGINEERING EXAMINATIONS PROGRAM

During the week of June 15th to 19th, 2015, both the Interprovincial Power Engineering Curriculum Committee (IPECC) and the Standardization of Power Engineer Examinations Committee (SOPEEC) held their annual meetings in St. John's, Newfoundland.

IPECC and SOPEEC work together to enhance power engineering programs throughout Canada. IPECC represents educators and industry from across Canada. The current Chair of IPECC is from Alberta. SOPEEC represents the jurisdictions and the committee consists of one representative from each jurisdiction. The new Chair of SOPEEC is from Nova Scotia.

Industry and educators work together in the IPECC meeting and make recommendations for improvements to the syllabi and curriculum for power engineering and refrigeration operator examinations.

In 2017, there will be a new ASME Extract available to be used in the writing of power engineering examinations. In 2018, the 2007 ASME Extract will not longer be used for the examinations. All multiple choice examination questions that have five distractors in the answers will be reduced to four distractors.

A SOPEEC Task Group is working on developing a National Standard for boiler plant classification and supervision requirements with an aim of using a consistent system across Canada.

The 2016 meetings will be held in Edmonton, with the IPECC meeting on June 13 to 15 and the SOPEEC meeting on June 16 and 17. This will be an opportunity for more Alberta industry and educator participants to gain an understanding and to have input to the needs of the power engineering program. ❖

CHANGE TO MULTIPLE-CHOICE FOR 3B1 POWER ENGINEERING EXAMINATION

Effective January 1, 2016, paper 3B1 of the 3rd Class power engineering examination will be administered in the multiple-choice format instead of the essay format. This is in line with the other 3rd class examination papers which are currently multiple-choice. The syllabus, pass mark and time allowed to write the paper will not change.

For more information, please see [Notice of Examination](#) for 3B1 Exams. ❖

SERVICING OF PRESSURE RELIEF VALVES ON PROPANE STORAGE TANKS

Alberta Municipal Affairs, Safety Services, has issued a [Safety bulletin](#) *Servicing Intervals for Pressure Relief Valves On Tanks 2500 USWG and Less*.

The bulletin applies to servicing of pressure relief valves (PRVs) installed on these propane vessels and identifies that the maximum servicing interval is twenty five (25) years with periodic visual inspection at a maximum of five (5) years as established through ABSA document AB-506, *Inspection and Servicing Requirements for In-Service Pressure Equipment*.

The bulletin establishes that each owner should develop a compliance plan by December 31, 2015 to come into compliance by May 31, 2024. The compliance plan should establish the priority for PRV servicing or replacement. PRVs should be serviced or replaced in accordance with the plan. Compliance audits will be carried out by Gas Safety and ABSA.

The following sections of the Pressure Equipment Safety Regulation are pertinent to the safe operation of PRVs:

37 *The owner of pressure equipment must ensure that*

(c) the pressure equipment and pressure relief devices, pressure gauges and regulating or controlling devices on them are maintained in good working order and are operated safely,

38(2) *A pressure relief device must be set to open before the pressure in the pressure equipment exceeds the maximum allowable working pressure of the pressure equipment.*

(3) *An owner of pressure equipment must ensure that the overpressure protection system is designed and maintained so that the maximum pressure in the pressure equipment does not exceed the prescribed limit of overpressure allowed in the applicable code declared in force by this Regulation.*

39(3) *A pressure relief device must be serviced at an interval acceptable to the Administrator.*

(4) *A pressure relief valve may be serviced, repaired, set or sealed only by a person who holds a certificate of authorization permit described in section 11 and who complies with section 13. ❖*

USE OF STEAM TO AIR CORRECTION FACTORS

The requirements of AB-524 "Pressure Relief Devices Requirements" became mandatory on January 1, 2014. Notwithstanding this mandatory implementation date, owners that have established a steam setting compliance plan in accordance with ABSA document AB-524a, may continue the practice of setting "UV"-stamped pressure relief valves using steam to air correction factors supplied to the owner by the valve manufacturer, until December 31, 2015. This was established by the Administrator through the issuance of Information Bulletin IB15-003.

This is a reminder that after December 31, 2015, a steam setting compliance plan in accordance with AB-524a can no longer be used and the full requirements of the AB-524 must be met. ❖

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