the pressure equipment safety authority

THE PRESSURE NEWS

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Wishing you a Joyous Holiday Season and a New Year filled with Peace and Happiness

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YEAR END MESSAGE

As we look back, last year continued to present a number of economic challenges in Alberta. Compared to some other industries in the province, ABSA is fortunate to have weathered the economic downturn without significantly impacting on the delivery of pressure equipment safety services to our stakeholders or affecting staff capacity to deliver on ABSA's mandate.

At ABSA, our ultimate objective is to prevent injury to people, arising from the operation of pressure equipment. The pressure equipment programs and the proactive actions taken by ABSA with the support of all stakeholders contributes to the level of pressure equipment safety we enjoy here in Alberta. With its heavy industry, Alberta has significant exposure to pressure equipment and ABSA is proud of the excellent industry record that we share with designers, builders, operators and owners of pressure equipment in this province. As indicators for the success of pressure equipment safety program delivery, there were no serious injuries in Alberta last year caused by a pressure boundary failure of pressure equipment and there were no appeals to the Safety Codes Council with respect to the pressure equipment safety discipline.

In addition to a knowledgeable and skilled staff, ABSA is very fortunate to have a dedicated and committed Board of Directors. This past year Dr. Gordon Nixon, Vice President Academic of SAIT Polytechnic, and Mr. Dale Myggland, Pressure Equipment Inspector with Battle River Inspection and Safety joined Mr. Don McFarlane, President of Cessco Fabrication and Engineering Ltd.; Mr. John Ell, President of ATCO Power; and Mr. David Rushford, Senior VP & Chief Operating Officer, Quicksilver Resources Canada.

With a strong balance sheet going forward and committed staff, we are confident that ABSA will continue to provide effective leadership in pressure equipment safety.

The Board and all the staff at ABSA wish you all the best for the holiday season as you share it with family and friends. Our wish is that your new year will be safe and filled with happiness, joy, health and prosperity. ❖

ACCESS WEBSITE NOW SUPPORTS ALL BROWSERS

The power engineer and inspector access website has been upgraded to support all browsers. This will allow more people to access their personal information that is securely stored at ABSA.

Over 4,000 people have activated their access to this service. These individuals are able to update their information, view examinations scheduled and examination results, print notification and result letters, schedule examinations and renew their certificates on line. When an individual has activated his/her access, ABSA will no longer mail a hard copy of the result letter or the renewal notice to the individual and, as such, it is imperative that, once activated, the user must keep his on-file email address current.

In order to obtain access, you must complete an application form and present it, with government issued picture identification, in person at any ABSA office. Once the application is received at the ABSA Edmonton office, your information will be updated and you will be emailed the PIN for activation. Once you access the site, you will be allowed to set your own PIN and select a security icon. You are responsible to maintain the confidentiality of your access information. ❖

'B' PRESSURE WELDER TEST - PRE-REQUISITE AND PREPARATION

The initial Grade B Pressure Welder Competency examination is conducted by an ABSA SCO as per Section 9(1) of the Pressure Welders Regulation, Alberta Regulation 169/2002, with amendments up to and including AR 71/2010 (PWR).

The pre-requisites for candidates who wish to undertake this certification are provided in Section 9(2) of the PWR. To qualify to take a Grade B Pressure Welder Certificate of Competency examination, a candidate, as minimum, must hold a Journeyman Certification of Proficiency with respect to welding under the Apprenticeship and Industry Training Act.

The syllabus which details the Grade B certification examination is available on ABSA's website (ABSA form AB-61). A brief description of this test is as follows:

- A NPS 6 pipe coupon is welded using an E-6010 welding electrode for the root deposit and an E-7018 welding electrode for the fill and cap deposit;
- The test coupon is welded in two positions – 2G (horizontal plane) for ¼ of the test coupon and 5G (vertical plane) for ¾ of the test coupon);
- The coupon is then cut into 8 straps (4 root and 4 face) when the welding is completed, and removed from the four different positions stipulated (horizontal, flat, vertical and overhead). These straps are then bent.
- Any indication in the bend specimens exceeding 1/8' in any direction is considered a failure;
- Also the test coupon is examined to determine if any undercut, lack of penetration or excessive reinforcement is present as this constitutes a failure.

The most common misconception is that a welder can come in to the test without practice. This is a big mistake and can be very frustrating to the welder. If the welder does not commit to prepare for this examination, it can be difficult to complete properly and successfully. The saying "practice makes perfect" is absolutely true in the welding trade. Therefore if one is to attempt the B Welder test, the best advice would be practice, practice, and practice.

Problems commonly encountered by welders during the examination are related to the technique used. Some of the frequent observed technique-related issues are:

1. Travel Speed – Too fast rod travel can cause incomplete penetration and too slow causes a hot arc leading to possible burn thru.
2. Amperage selection – Too high an amperage causes spatter and possible burn thru and a wide bead. Too low an amperage may produce a high crown.
3. Voltage Control – With high voltage this may cause excess penetration thus creating grapes and lower voltage may result in excessive spatter and also poor arc control.
4. Arc control - Poor arc control usually means undercut, excessive reinforcement, slag inclusions and porosity.

Again, before one attempts the initial B Welder examination, simply be prepared and practice. ❖

PREPARE YOURSELF WITH ABSA PRESSURE EQUIPMENT SEMINARS

Three New Seminars Successfully Launched

As reported in the September issue of the Pressure News, three new ABSA seminars were under development. These seminars were launched successfully in the months of September to November, 2010. We are pleased to announce that all three new seminars were fully if not over subscribed and well received by their respective audiences.

The topics of the three new seminars are:

Pressure Vessel Design
Pressure Relief Valves
Quality Systems & Inspection for Pressure Equipment Construction

The Pressure Vessel Design Seminar is scheduled to be delivered on 4 occasions in 2011 with the first one at ABSA in Edmonton on March 7. The Pressure Relief Valve Seminar is also scheduled to be delivered on 4 occasions in the next year (3 at ABSA in Edmonton and 1 in Calgary). The Quality Systems & Inspection for Pressure Equipment Construction Seminar is scheduled to be delivered on 4 occasions in 2011 as well.

Other ABSA Seminars

In addition to the three new Seminars, ABSA will also continue to offer the seminars on Pressure Equipment Safety Legislation (PESL), Pressure Piping Fabrication Requirements and Annual Code Update.

The increase in the number of ABSA's public seminar offerings to six and the scheduling of public seminars in Calgary next year represent a significant step forward in the expansion of ABSA's education and training outreach in support of our clients and stakeholders in the pressure equipment industry.

ABSA seminar and IPEIA Conference in Banff March 2011

In support of and in conjunction with the International Pressure Equipment Integrity Association (IPEIA), ABSA will be offering three seminars (PESL; Pressure Piping Fabrication Requirements; and Pressure Relief Valves) just prior to the IPEIA Conference (March 2-4, 2011) in Banff on February 28 and March 1, 2011

New Seminars in Development

ABSA is committed to provide our stakeholders with training and timely information to assist them in meeting their responsibilities for pressure equipment safety and the requirements of the legislation. Seminars are developed through input and request from and in consultation with our clients.

Currently, ABSA is developing two new seminars that are projected to be offered in 2011. The first is a Design Registration seminar being developed by the Design Survey group at ABSA. The target audience for this seminar is engineering personnel involved in the submission of designs for construction, alteration and repairs of pressure equipment.

The second seminar under development is on the Power Engineers Regulation. This seminar is being developed by the Education & Certification group at ABSA. The target audience for this seminar is instructors and administrators of power engineering training programs in Alberta as well as Chief Power Engineers employed in the industrial and public sectors.

Seminar Details
Description, Schedule and Application

Please view the ABSA website (www.absa.ca) for the details on all the seminars offered. All interested candidates are encouraged to register early for these seminars because seats are limited.

Thank You and Feedback

ABSA appreciates the continuing strong support for our education and training initiatives by our clients and stakeholders. We would be pleased to hear from you (email training@absa.ca) not only for the continual improvement and success of our program but for helping to achieve pressure equipment safety through providing you with training and timely information. ❖

ABSA Fee Schedule Announcement

ABSA has reviewed the fees and charges as they relate to the powers, duties and functions delegated to us under the Boilers Delegated Administration Regulation and has determined that a fee increase is not necessary at this time.

Therefore, the fee schedule established in 2009 will remain in effect for another year, through 2011.

ABSA is a self-sustaining not-for-profit organization. We recover our costs through revenues generated by fees charged to customers and we place a high importance on ensuring value for cost. Fees are necessary to ensure the operational effectiveness of ABSA and we are committed to giving you our best effort with regard to the effective delivery of pressure equipment safety programs in Alberta. ❖

Unsafe Condition Reporting

Reporting of unsafe conditions is a requirement under Section 59 of the Safety Codes Act and Section 35 of the Pressure Equipment Safety Regulation.

It would be impossible to list all of the conditions for all aspects of the pressure equipment industry when reporting is applicable. However, it is also not intended to burden industry and ABSA with reports of each and every minor situation of no significant consequences. .

An "unsafe condition" relating to pressure equipment is essentially a condition involving pressure equipment that may happen again and, if so, could result in an accident leading to injury, death, or property damage. A case in point would be the reporting of a valve failure back in early 2004 (see http://www.absa.ca/IBIndex/ib04-005.pdf). Although there was minimal if any damage, corrective actions taken involving the valve manufacturer, suppliers and owner-users immediately following an investigation of the incident report, including the issuance of the Safety Alert under Information Bulletin IB04-005, likely helped prevent serious injury or even possibly fatal incidents

Some examples of "unsafe conditions" include, but are not limited to:

- "near misses" (events that could have caused injury or damage)
- pressure components found to be faulty in design or manufacture
- malfunction of safety devices
- improper operation of the pressure equipment
- inappropriate components or materials
- unauthorized repair or alteration
- loss of containment
- cracking
- corrosion
- improper repairs

If unsure whether an unsafe condition should be reported, discuss the situation with an ABSA Safety Codes Officer for clarification.

Unsafe conditions must be reported "promptly" by the owner, by calling or emailing an ABSA office or any ABSA Safety Codes Officer. After hours, if the situation is critical (posing immediate danger), call the ABSA Edmonton switchboard at 780-437-9100. The message will provide after-hours phone numbers for contact. For non-critical situations, notify ABSA the next business day. All verbal or e-mail reports must be followed up by a written report, either by submitting the ABSA Unsafe Condition Reporting Form AB-139, (http://www.absa.ca/Forms/AB-139%20Unsafe%20Condition%20Report.pdf) or a report in a different format, but must also provide all of the information referenced on the AB-139.

Reporting unsafe conditions is an important function by all, in an effort to help prevent pressure equipment accidents. We encourage all personnel involved in the pressure equipment industry to evaluate all possible unsafe conditions and provide the necessary reporting. By gathering, analyzing, and summarizing information about unsafe conditions, ABSA is able to issue Alerts, Notifications or Directives and in addition, recommend regulation, code and standard changes. ❖

FREEZING DAMAGE AND SAGD

It is no surprise that Alberta can get pretty cold in winter months. And when the temperature gets low, things tend to get frozen 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, not infrequently 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. Fortunately, in the last five years, there was no serious injuries and no fatality as a result of these incidents. However, the related costs, in some cases, ran into millions if not more.

ABSA staff members have been preaching the serious nature of freezing damage whenever and wherever there is an opportunity to do so; in seminars, presentations, and meetings with different industry sectors. There were a number of articles published in The Pressure News previously, last of which was on Page 4 of the March 2010 newsletter (http://www.absa.ca/newsletter/2010-v15-iss1.pdf).

Lately, we have again found, not infrequently, freezing incidents in SAGD (Steam Assisted Gravity Drainage) enhanced oil recovery facilities. Just within the last month alone, there were three reported incidents involving rupture of headers and steam lines as a result of frozen equipment in those facilities. It is a matter of proper drainage, operating procedures and heat tracing and all these incidents are preventable.

In these three cases, not only in equipment damage, the companies are looking at significant downtime with loss of production. Fortunately, no one was hurt in any of the three incidents. But this is no consolation because the luck of no one getting hurt may run out. And more, why incur the cost when the incidents should not have happened in the first place?

Again, we want to draw the readers' attention to the fact that equipment involved in a freezing incident, or if freezing has been suspected, must not be put back into service without proper integrity evaluation. The use of damaged components in pressure service can be highly hazardous.

The fatal accident in early 2004 (see http://www.absa.ca/IBIndex/ib04-003.pdf) is a good reminder that we should all be on guard of freezing damage of pressure equipment. ❖

ABSA 2011 HOLIDAYS

Family Day	-	Monday, February 21
Good Friday	-	Friday, April 22
Victoria Day	-	Monday, May 23
Canada Day	-	Friday, July 1
Heritage Day/Civic Holiday	-	Monday, August 1
Labour Day	-	Monday, September 5
Thanksgiving Day	-	Monday, October 10
Christmas Day	-	Monday, December 26
Boxing Day	-	Tuesday, December 27

ABSA offices will remain opened on Remembrance Day.

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