



the pressure equipment safety authority

# THE PRESSURE NEWS

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## A YEAR IN REVIEW AND SEASON'S GREETINGS

### IN THIS ISSUE:

*A Year in Review* ..... 1

*Confined Space Entry Hazards* .. 2

*5th Class Power Engineers Certification Examinations* ..... 2

*In-Service Pressure Equipment Inspector Certificate Renewal* ..... 3

*Fee Change Announcement* ..... 3

*Board Member Board of Directors* ..... 3

*Positive Material Identification and Verification* ..... 4

*IPEIA Conference 2007* ..... 4

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### ASME AIA ACCREDITATION SURVEY

ASME auditors were in Edmonton in October to perform the triennial survey of ABSA's Authorized Inspection Agency (AIA) quality program for the accreditation with the ASME International. We are pleased to announce that ABSA's accreditation survey was concluded successfully and the survey team will recommend to the ASME International for the renewal of ABSA as an ASME accredited AIA.

ABSA is committed to pressure equipment safety. Alberta, with its heavy industry, has significant exposure to pressure equipment and ABSA is proud of the excellent safety record we share with designers, builders, operators and owners of pressure equipment in this province.

The oil and gas economy continues to place a lot of pressure on both the industry and ABSA and we recognize that everyone is working hard to ensure that Albertans are protected. This has been a record year for inspections and other activity at ABSA and we appreciate the extra effort from our staff as we endeavor to make adjustments to ensure that we have a sufficient knowledgeable workforce for the future.

A milestone for ABSA this year was the grand opening of our new head office building in Edmonton. The grand opening took place on September 14, 2006. Speakers included Hon. Rob Renner, Minister of Municipal Affairs, Allan Scott, CEO of Edmonton Economic Development and Warren Fraleigh on behalf of ABSA's Board of Directors. It was a great opportunity to showcase ABSA and the important work we do in the area of pressure equipment safety. With this new building, ABSA has a first class facility from which to attract and retain top quality staff.

ABSA appreciates the excellent working relationship we have with Municipal Affairs. We will miss Denis St. Arnaud, former Assistant Deputy Minister, who retired from public service this year. Denis worked hard to ensure that the pressure equipment safety program remained strong. We welcome Ivan Moore as the new Assistant Deputy Minister and look forward to a continued solid relationship with Ivan and his staff.

Owen Baker stepped down from ABSA's Board of Directors at the end of June 2006. Owen joined the Board in 2000 as a member representing the upstream oil and gas industry on ABSA's five member board. Owen served two 3-year terms which is the maximum allowed by the Bylaws. We would like to take this opportunity to again thank Owen for his significant contribution and valued leadership.

We are also pleased that Mr. Dave Rushford accepted an invitation to join the Board in July. Mr. Rushford is currently Vice President - Canadian Plains Region Business Services, EnCana Corporation. Dave is an experienced petroleum engineer with 25 years of experience covering all aspects of the upstream industry with a strong focus on managing interdisciplinary teams. We thank Dave for his willingness to give leadership along with the rest of the Board and welcome him to ABSA.

Dave joins Yves Tremblay, Vice President, Syntech Enerflex; Warren Fraleigh, Business Manager and Secretary Treasurer for the Boilermakers Local Lodge 146; Dr. Brian Larson, past President of Lakeland College and Don McFarlane, President, Cessco.

It is my opinion that ABSA staff have once again demonstrated their capability in the area of pressure equipment safety and are well positioned to meet the challenges that lie ahead in 2007.

On behalf of the Board and all the staff at ABSA, I would like to take this opportunity to wish you all the best for the holiday season as you share it with family and friends.

Gordon Campbell  
General Manager

## CONFINED SPACE ENTRY HAZARDS

Earlier this year, an incident in Quebec involving confined space work hazard resulted in three fatalities: a welder who fell unconscious inside a tank while using argon as a shielding gas and two colleagues who entered the confined space in a failed rescue attempt. A similar incident occurred in Alberta when two persons died from asphyxiation in 1997 (see ABSA Pressure News Vol. 3 Issue 3, 1998). These are powerful messages for people in our industry on the safety hazards of "Confined Space".

In Alberta, the Occupational Health and Safety Code defines a confined space as "*An enclosed or partially enclosed space that is not designed or intended for continuous human occupancy with a restricted means of entry or exit and may become hazardous to a worker because; (a) of its design, construction, location, or atmosphere, (b) of the work activities, materials or substances in it, (c) the provision of first aid, evacuation, rescue or other emergency response is compromised, or (d) of other hazards relating to it.*" Under Alberta General Safety Regulation, both the employer and the employee are considered responsible for the well being of the person entering the confined space.

Some confined spaces that are related to pressure equipment industry are "storage tanks, scrubbers, cooling towers, boilers, pressure vessels and furnaces".

Some of the hazards in the confined space are "Oxygen deficiency or enrichment, toxic substances, poor visibility, electric shock, fire and explosion and residual materials/chemicals and mechanical energy sources".

Regarding the confined space entry, the responsibilities of the owners/employers, workers and all parties involved are clearly defined in the Occupational Health and Safety Act. In all cases, ABSA inspection staff will not provide inspection services that require entry into a confined space until and unless all requirements of the Occupational Health and Safety Act provisions are fully complied with and our staff members are assured of their personal safety. We would like to urge all concerned to do likewise for the sake of public safety. ❖

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## FIFTH CLASS POWER ENGINEERS CERTIFICATION EXAMINATIONS

A low passing rate and a lack of appropriate training course materials for the 5th Class Power Engineers Certification examination initiated a lot of discussion in this year's Interprovincial Power Engineering Curriculum Committee (IPECC) meeting in Regina. IPECC proposed a revised course outline to help define the syllabus.

After consulting college instructors and training providers and receiving feedback from the industry, four major causes for the low passing rate were identified:

1. Many candidates writing the examinations have English as a second language.
2. Candidates generally do not have sufficient operating experience.
3. Course materials are at the 4th Class level.
4. There are the same percentage of questions from technical areas such as welding technology and applied science as there are questions related to boiler and boiler operation.

Certifying competent 5th Class power engineers is critical to pressure equipment safety as these people are normally taking care of small heating plants close to the public. As a regulatory body, ABSA is not going to make the exams easier to bring up the passing rate. However, we are committed to make sure that examination questions are clear, at the proper skill level and related to the job.

ABSA has taken the following actions to address the four major causes:

1. Examination questions and answers were reviewed and revised to have short sentences in simple English.
2. Training providers are encouraged to include a competency component (practical test / demonstration) in their courses.
3. ABSA is working with PanGlobal Training Systems Limited (an organization which produces power engineering training materials and was formed in 2003 through a unique partnership formed between SAIT, NAIT and BCIT which have been producing power engineering training materials since 1917) on revising the 5th Class course material and they indicated that the course material will be available by the end of 2007.
4. Starting January 2007, the 5<sup>th</sup> Class Power Engineer Certification examination will have a higher percentage of boiler and boiler operation questions and a lower percentage of questions on technical areas such as welding technology and applied science.

There is a strong demand for Power Engineers across Canada, especially in Alberta. College educators, training providers, industry and regulatory bodies work together as partners to improve the quality of power engineers which in turn enhances public safety.

For more information on IPECC and SOPEEC, please visit the SOPEEC website at [www.sopeec.org](http://www.sopeec.org). ❖

## IN-SERVICE PRESSURE EQUIPMENT INSPECTOR RENEWAL

Over 400 Information letters were sent out in November to all certified In-Service Pressure Equipment Inspectors. The letter provides all the renewal requirement information to certificate holders so that they can plan for their continuing education and commence to document their inspection experience when renewal is required.

The information letter is not a renewal notice letter. A renewal notice letter together with the renewal application form AB-98 will be sent out nine weeks before the certificate's expiry date. Certificate holders can check their certificate's expiry date using the Alberta Certified In-Service Inspectors Online Directory.

Certified Inspectors who have upgraded their Pressure Vessel Inspector Certificate to Boiler and Pressure Vessel Certificate are not required to renew their Pressure Vessel Inspector Certificate. These Pressure Vessel Inspector Certificates will become invalid upon expiry.

A few concerns were expressed that the renewal requirements could be too stringent. However, it must be emphasized that the intent of the renewal requirement is to promote continuing education and keep current with the latest inspection development and practices.

There are some enquiries on the 80 hour continuing education requirement. This provision is in line with the National Board requirements. Continuing education is not confined to courses and training seminars offered by training providers. Continuing education includes attending pressure equipment related conferences, code update seminars, pressure equipment safety regulation seminars and company in-house training and can also include documented self-study. This also includes time in providing pressure equipment training to workers.

The legislation requires the owners to ensure that their employees are competent. The renewal requirements reinforce the expectations to the inspectors and provide ABSA with some evidence that this is happening.

The 25 question multiple-choice, open book re-certification examination is in line with API practice. Candidates should bring their Alberta Safety Codes Act and regulations and CSA B51 for the examination. This examination refreshes the In-Service Pressure Equipment Inspector on the Act and regulation requirements and various ABSA safety programs.

Starting January 2007, In-Service Pressure Equipment Inspector re-certification examinations are to be conducted in all ABSA examination centres every month. Examination candidates can pick their first and second choices of examination centre and preferred month to write their re-certification examination.

These requirements are finalized after first being released as a discussion paper at the International Pressure Equipment Integrity Association Conference in February, 2006. ❖

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## FEE CHANGE ANNOUNCEMENT

Fees for services and annual registration of pressure equipment will increase by an estimated 4.6% on April 1, 2007. ABSA is a self-sustaining not-for-profit organization. We recover our costs through revenues generated by fees charged to customers. A general fee increase is necessary to help offset inflation and maintain the operational effectiveness of ABSA. Details of the specific fee changes will be announced at a later date on the ABSA website at [www.absa.ca](http://www.absa.ca). For any questions or concerns, please contact Winnie at 433-0281 ext 3305. ❖

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## BOARD MEMBER, BOARD OF DIRECTORS

As a member of the Board of Directors, you will oversee the affairs of ABSA. Meetings are scheduled as required but typically consist of one meeting per quarter. The meetings are usually in Edmonton or Calgary. The term of the position is three years.

We require a senior representative from the power generation industry and the successful candidate will have broad experience and knowledge in the pressure equipment discipline as it relates to the safety system in Alberta. The incumbent will require extensive experience in operation, maintenance, design, inspection and construction of pressure vessels combined with management experience at an executive level. Board governance experience is an asset. In recognition of service, board members receive an honorarium. Travel and expenses associated with Board work are also covered.

To apply, please send a covering letter and resume outlining your experience, by January 15, 2007 to [hr@absa.ca](mailto:hr@absa.ca). ❖

## POSITIVE MATERIAL IDENTIFICATION AND VERIFICATION ANOTHER LESSON LEARNED

The US Chemical Safety and Hazard Investigation Board (CSB) issued a Safety Bulletin (No. 2005-04-B) late last year summarizing the results of an investigation on the BP Refinery Fire on July 28, 2005. It was reported that "4 months after a devastating incident in the Isomerization (Isom) Unit that killed 15 workers and injured 180, the BP Texas City refinery experienced a major fire in the Resid Hydrotreater Unit (RHU) that caused a reported US\$30 million in property damage". Fortunately, in this case only "one employee sustained a minor injury" and "there were no fatalities".

It was concluded in the investigation that identically sized pipe spools of different materials were reinstalled in the wrong location during plant maintenance. A carbon steel spool, instead of the alloy spool, was installed in a high-temperature hydrogen line and ruptured after operating only 3 months. The CSB Bulletin was issued "to focus attention on process equipment configuration control and positive material verification of critical alloy steel piping components".

The CSB report reminds us of a major incident in Alberta over twenty years ago where purportedly, the use of a short length of carbon steel pipe in place of an alloy steel pipe resulted in huge loss to production and equipment. Fortunately, there were no fatalities associated with the incident here.

Anyone involved in maintenance work must have a procedure to ensure that components are reinstalled in the correct location and that correct materials are used for any repair. The owner should identify where there is a change in material specifications and, especially, where there are critical piping components. The owner should ensure that critical piping components have a suitable material verification.

Positive material identification and verification is an important element of all pressure equipment construction and operation activities and is an integral part of any pressure equipment quality system. The pressure industry here must take note of this requirement and hopefully, we will not need to learn a similar lesson! ❖

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### 11th Annual International Pressure Equipment Integrity Association Conference

**February 14-16, 2007  
at Banff, Alberta**

The goal of the conference is to promote technical improvements toward excellence in design, safe operation, and inspection of pressure vessels, piping, and equipment.

ABSA has 2 seminars scheduled in Banff on February 12 & 13, 2007, immediately prior to the International Pressure Equipment Integrity Association (IPEIA) Conference. One is a new Pressure Piping Seminar and the other is the Pressure Equipment Safety Legislation (PELS) Seminar that we have offered for several years. Details on these seminars and application information are available at [www.absa.ca](http://www.absa.ca). We also will be setting a schedule for presenting these seminars at our Edmonton office throughout 2007. This information will be posted on our web site.

Please visit IPEIA's web site for more information regarding the conference: <http://www.ipeia.com>. ❖

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