

# ABSA THE PRESSURE NEWS

Alberta Boilers Safety Association

Volume 3, Issue 4, December 1998

## Message from General Manager

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

We have just completed our fiscal year end at ABSA - a time of reflecting on last year's accomplishments, but also planning our focus for next year and beyond.

We feel our activities over the last year have contributed significantly to boiler and pressure vessel safety & awareness in Alberta. As many of you know, Alberta is considered to have the highest concentration of pressure equipment per capita in North America. Currently we have approximately 90,000 pressure vessels and boilers under the annual registration system and hundreds of thousands more that don't qualify for inclusion in the registration system. The industry safety track record has been excellent due to an appropriate regulatory system as well as the tremendous effort and support for pressure equipment safety both from industry and government. Again this year there were no fatalities in Alberta attributable to a breach of pressure equipment integrity. The two accidents in the Maritime Provinces resulting in fatalities early this year have been studied by ABSA. As a result, with industry's support, we are assisting in the review and update of a guideline on the use of direct fired process heaters.

While some industry sectors have slowed, plant expansions and new projects in Alberta have put more demands on ABSA's inspection services this year. In spite of the increased activity we are encouraged with our accomplishments. More inspections, examinations, audits, design reviews and registrations occurred during this past year, with better turnaround time, than any other period since the beginning of ABSA. Although we are doing better, we will continue to strive toward continuous

announcement). As in the past, we believe it will be well attended with representatives from manufacturers, owners, users, inspection agencies, and other jurisdictional bodies. We are confident that the conference, which is organized by SAIT with ABSA's support, will continue to enjoy the level of success it experienced in the last two years

Finally, with industry's sponsorship and ABSA's coordination, a book was published entitled "Pressure Under Control - Celebrating 100 Years of Boiler and Pressure Vessel Safety in Alberta". The book chronicles the history of pressure equipment development in our province. Soft cover copies of the book are still available from ABSA and will provide a wealth of information not only on pressure equipment but Alberta's leadership in many respects in this field.

Pressure equipment safety concerns us all, particularly with the nature of our province's economy and the numbers of pressure vessels in use in the province. Alberta is known to provide leadership in the arena of

pressure equipment safety, and we look forward to the ongoing cooperation with our industry partners to ensure a continued commitment to a high level of safety.

Merry Christmas and a Happy New Year.

Gordon Campbell  
General Manager

## Season's Greetings

*Our very best wishes for  
a happy holiday  
and  
a prosperous New Year*

improvement in a cost effective manner. We were also pleased with the significant accomplishment in the reduction of overdue pressure vessels backlog. Special emphasis was placed on addressing overdue inspections of pressure equipment in public facilities.

On another note, we are looking forward to the Third Annual Pressure Equipment Industry Conference to be held in Banff, February 3<sup>rd</sup> - 5<sup>th</sup>, 1999 (please refer to separate

## IMPLEMENTING THE NEW 4TH & 5TH CLASS

Change is something people do not like to encounter but is inevitable in today's society. Change is happening everywhere including within the Engineers' Regulations.

The changes to the Engineers' Regulations relate to the amalgamation of the Building Operator B examinations and the Fireman's examinations and replacing them with a new Fifth Class examination. Also the amalgamation of the Building Operator A and Fourth Class examinations and replacing them with a new and improved Fourth Class examination. These changes were implemented on September 1, 1998.

To prepare for this change the Examinations Staff worked with the technical colleges to ensure a smooth transition took place and reasonable notification of the changes was given to all examination candidates. The Pressure News, Vol.3 Issue 2 contained an article explaining the changes. New certificates were printed. New examination application forms were produced and circulated to ABSA offices and the technical colleges. New examination question banks were developed and reviewed for accuracy for the new Fifth Class and the new Fourth Class.

In the months leading up to the Engineers' Regulations implementation date, the Examinations Staff handled numerous telephone and personal inquiries from anxious examination candidates seeking clarification on information and also seeking assurance that their existing certification would not be affected. Special provisions were made for a number of candidates who were in the process of completing the college course through a recognized technical institute or were in the process of completing the work

experience requirements during the transition period. These provisions include:

### **Scenario #1**

*The candidate has successfully completed the college course, has the required work experience and has written the ABSA examinations but failed.*

*This candidate will be allowed to rewrite the "old" examination(s) until DECEMBER 31<sup>st</sup>.1998. If this candidate has not successfully completed the ABSA examinations by this date, the candidate will be required to take the applicable upgrade course and provide proof of satisfactory completion. This candidate will then be eligible to write the NEW examination(s).*

### **Scenario #2**

*The candidate has successfully completed the college course, has written Part A of the ABSA examination and is completing the work experience requirement.*

*This candidate will be allowed to write the "old" Part B examination on completion of the required work experience until DECEMBER 31<sup>st</sup>. 1998. If this candidate can not complete the work experience requirement in 1998, this candidate will be required to take the applicable upgrade course and provide proof of satisfactory completion of the course and the required work experience, before being eligible to write the NEW Part B examination.*

### **Scenario #3**

*The candidate will have successfully completed the college course and completed the required work experience by DECEMBER 1<sup>st</sup>, 1998*

*The candidate must apply and write the examination(s) before DECEMBER 31<sup>st</sup>. 1998. If the candidate is unsuccessful in the examination attempt, he/she must take the applicable upgrade course and provide*

*proof of satisfactory completion before being eligible to write the NEW examination(s).*

### **Scenario #4**

*The candidate has successfully completed the college course, has not attempted the Part A and will not have the required work experience by DECEMBER 1<sup>st</sup>.1998 to attempt the Part B examination.*

*The candidate must complete the work experience requirement, successfully complete the applicable upgrade course and provide proof of completion before being eligible to write the NEW examinations.*

### **Scenario #5**

*The candidate has not yet completed the college course and will not be able to complete the college course before DECEMBER 1<sup>st</sup>. 1998.*

*The candidate must successfully complete the course and the work experience requirement. The candidate must then successfully complete the applicable upgrade course and provide proof of completion before being eligible to write the NEW examinations. By completing the old college course and the Upgrade course the candidate's knowledge will be at the level of a candidate taking the new college course.*

The Engineers' Regulations now have provisions for existing holders of a valid Building Operator B certificate and holders of a valid Fireman certificate to upgrade to the new Fifth Class. There are also provisions for holders of a valid Building Operator A certificate and holders of a valid Fourth Class certificate to upgrade to the new Fourth Class. These provisions are providing a career path for many Albertans. ■

### **Employment Opportunities**

Visit the ABSA Internet site for current ABSA job opportunities.



## CSA B51 AND ASME

### (I) GENERAL REVIEW - SCOPE AND DETAILS

We have been asked many times the difference in the requirements between Canadian Standards Association (CSA) B51 Boiler, Pressure Vessel, and Pressure Piping Code and the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. We propose to summarize some of the more significant differences as we see them between these two codes as well as the background of these differences in a series of articles in the Pressure News beginning this issue. ABSA cannot speak on behalf of the CSA B51 Technical Committee or the ASME Boiler and Pressure Vessel Committee.

Broadly speaking, the differences of these two codes may be grouped as (i) scope and details, (ii) administrative requirements, (iii) product specific requirements and (iv) other technically related requirements.

In this issue, we review the differences in "Scopes and Details" of the two Codes. The Scope of the CSA B51 is far wider than that of the ASME in that CSA B51 applies to boilers, pressure vessels and pressure piping but unlike ASME, it does not apply to nuclear pressure equipment. In the case of ASME Boiler and Pressure Vessel Code, as indicated in the name, applies to "Boilers" and "Pressure Vessels" and not normally to "Piping". The scopes of the ASME Code are different depending on the different "Section" of the ASME Code being referred to. ASME Section I is specific to "Power Boilers", Section IV, "Heating Boilers" and so on. Another major distinction here is that the ASME Code is for "new construction" only but CSA B51 also has requirements for repairs, alterations, installation and others things in addition to new construction.

Accordingly, one may ask how CSA B51 can cover such a wide range of equipment and operation while the ASME Code, in many volumes and tens of thousands of pages, is only applicable to new construction. The difference here is in the amount of detail contained in the two Codes. CSA B51 normally references other codes and standards and only provides for exceptions, additional and/or alternative requirements. This

way, CSA B51 does not provide detailed design, construction, testing and inspection requirements for the majority of the items under the code but simply refers to other codes and standards (the ASME Boiler and Pressure Vessel Code being a major one) for these requirements. In the case of the ASME Boiler and Pressure Vessel Code, similar to other national and international boiler and pressure vessel codes and standards, very detailed requirements are provided for the materials, design calculations, heat treatment, welding, inspection, destructive and non-destructive testing etc.

It should also be noted that because of the scope differences, different sections of the ASME Boiler and Pressure Vessel Code quite often invoke different requirements. Accordingly, even for a similar design configuration, if it were acceptable under one Section of the Code, one must not assume that it would be automatically acceptable under another Section of the Code without checking in the Section concerned. While the different ASME Code Sections are working to achieving uniformity in requirements, because of the scope and application of the different Sections, this can not always be done.

To conclude, CSA B51 is essentially a code of exception with very wide applications, referencing other codes and standards for detail requirements while providing for additional or alternative requirements. ASME Boiler and Pressure Vessel Code is for new construction application only and although the Code provides for all the necessary construction details, its scope depends entirely on the different Section of the Code. ■

### THIRD ANNUAL PRESSURE EQUIPMENT INDUSTRY CONFERENCE

The Energy & Natural Resources Department of SAIT, with support from ABSA, is coordinating the Third Annual Pressure Equipment Industry Conference scheduled for February 3, 4 & 5, 1998. The Conference will be held at the Banff Centre in Banff, Alberta.

The format of the Conference will be a speaker program with 16 speakers, and another program consisting of 4 workshops. Each day will commence with a keynote speaker:

February 4, 1999

- ◆ Mr. Dick Auchinleck, President and CEO, Gulf Canada, Denver, Colorado.  
"The Effect of Quality Assurance on Gulf Canada's Operation"

February 5, 1999

- ◆ Mr. Peter Kruselnicki, Deputy Minister, Alberta Labour  
"The Alberta Advantage as it Relates to Pressure Vessel Safety"

For more information, please contact Energy & Natural Resources Department of SAIT:

- Larry Sever  
telephone (403) 284-8290
- or
- Monica Schultz  
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### IMPORTANT NEWS TO OWNERS OF PRESSURE VESSELS

All owners of Pressure Vessels will be receiving, in early December, a list of all vessels owned by them according to our records. The purpose is to provide you, the owner, with an opportunity to compare the actual vessels owned according your records against this list and to correct any errors or omissions before the annual registration fee invoices are sent out in late March. This will help you to check the equipment you have on registration allowing legal operation of the equipment. This will also allow us to ensure that the annual registration fee invoices are as accurate as possible. ■

## 1999 EXAMINATION SCHEDULE

The following examination schedules are provided for reference only and may change without notice. Please confirm the date with the respective area when applying to write an examination.

### Power Engineers

#### Edmonton

Jan 18-21	Jul 19-22
Feb 22-25	Aug 23-26
Mar 15-18	Sep 20-23
Apr 19-22	Oct 18-21
May 24-27	Nov 15-18
Jun 14-17	Dec 13-16

#### Calgary

Jan 6	May 5	Sept 1
Feb 3	Jun 2	Oct 6
Mar 3	Jul 7	Nov 3
Apr 7	Aug 4	Dec 1

#### Red Deer

Jan 7	May 6	Sept 2
Feb 4	Jun 3	Oct 7
Mar 4	Jul 8	Nov 4
Apr 8	Aug 5	Dec 2

#### St. Paul

Jan 5	May 4	Sept 7
Mar 2	Jul 6	Nov 5

#### Grande Prairie

Feb 4	Jun 3	Oct 7
Apr 8	Aug 5	Dec 2

#### Fort McMurray

Jan 12	May 11	Sept 14
Mar 9	Jul 6	Nov 16

#### Medicine Hat

Jan 8	May 7	Sept 10
Mar 5	Jul 9	Nov 5

#### Lethbridge

Feb 4	Jun 3	Oct 7
Apr 8	Aug 5	Dec 2

### Safety Codes Officers (SCO)

#### Calgary and Edmonton

Feb 3	Sept 1
May 5	Dec 1

#### Grande Prairie

May 5	Sept 1	Dec 1
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#### Medicine Hat

May 5	Sept 1
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#### Lethbridge

Dec 1
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For information regarding the Power Engineers' and SCO applications, please call ABSA, Examination Section at (403) 433-0281 Ext. 309 or 321

### National Board Commission

#### Edmonton

Mar 3 & 4	Sept 1 & 2
Jun 2 & 3	Dec 1 & 2

### API 510 and API 570

#### Edmonton

Jun 2	Dec 1
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For information regarding the National Board Commission and API examinations, please call ABSA at (403) 433-0281 Ext. 314.

### STATUTORY HOLIDAYS - 1999

New Year's Day	Fri., Jan 1
Family Day	Mon., Feb 15
Good Friday	Fri., April 2
Victoria Day	Mon., May 24
Canada Day	Thur., July 1
Civic Holiday	Mon., Aug 2
Labour Day	Mon., Sept 6
Thanksgiving Day	Mon., Oct 11
Remembrance Day	Thur., Nov 11
Christmas Day	Fri., Dec 24
Boxing Day	Mon., Dec 27

ABSA will observe the above statutory holidays. However, should inspection services be required on a holiday, arrangements can be made to accommodate your request by contacting the respective Regional Manager. Please note that in situations such as these, the Special Inspection Fee rate will apply.

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