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CONGRATULATIONS AND THANK YOU DR. LAU



On March 26th, 2014, Dr. Ken Lau announced his retirement as Administrator of the pressure equipment safety discipline in Alberta and Chief Inspector of ABSA. Dr. Lau has served the Alberta pressure equipment industry since 1977 and has been Administrator and Chief Inspector since 1990. He will continue in this capacity until September 15th, 2014.

Dr. Lau has had a very distinguished career in pressure equipment safety that both he and ABSA are proud to reminisce about.

Following graduation in Mechanical Engineering in Hong Kong 1966 and completion of graduate apprenticeship in England, Ken started his career in pressure equipment in 1968 when he entered University of Manchester with a scholarship from the Institution of Mechanical Engineers (UK) and obtained his M.Sc., and Ph.D., through research in pressure vessel design and stress analysis.

Ken started working in Alberta in 1977 in the pressure equipment fabrication and petrochemical industries before joining the Alberta Boilers Branch. In 1982, he became Assistant Chief Inspector and in 1990, he was appointed Chief Inspector. With the Safety Codes Act superseding the Boilers and Pressure Vessels Act in 1992, he was appointed as the Administrator of pressure equipment safety discipline for Alberta. Since the formation of ABSA in 1995, he has served the dual role of Chief Inspector of ABSA and Administrator of pressure equipment safety for the Province of Alberta.

Starting with his time with the Alberta Boilers Branch and continuing with ABSA, Ken has contributed to a number of significant changes to pressure equipment safety in Alberta. And many of these changes have been implemented in jurisdictions outside Alberta. With Ken's initiative, help and support, the Boilers Branch and then ABSA, have achieved a number of firsts among pressure equipment jurisdictions including (i) the use of microcomputer in the early 1980's for different pressure equipment safety programs; (ii) publishing periodical newsletters and external industry guidelines and procedures, information bulletins, alerts and other documents to provide uniformity of program delivery and to assist industry in all matters relating to pressure equipment safety; (iii) creating an internet website in the 1990's to foster pressure equipment safety information release and access by all stakeholders; and (iv) conducting regular scheduled public seminars on code and regulatory changes. Ken has personally developed a number of design methodologies and computer programs some of which are still very much in use these days.

Immediately following his appointment as the Chief Inspector in 1990, Ken started working with Alberta Government and Industry to facilitate the transfer of pressure equipment safety program delivery from government to ABSA as a Delegated Administrative Organization, a first in North America that has since been emulated, though not quite in the same fashion, by three other jurisdictions in Canada. An article was published in the National Board Bulletin (Volume 51, No. 3) in 1996 on how pressure equipment safety was being ensured through "A New Partnership" between the Alberta Government and industry. In 2011, exactly

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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.

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fifteen years later, another article in the National Board Bulletin entitled "Achievements in Safety" (Volume 66, No. 3) stated that "Dr. Lau is passionate about his involvement with helping to bring industry, government and all stakeholders together to promote public safety, as seen in the success of ABSA".

Ken has been very active in standards development since the beginning of 1980's, serving in CSA B51, B52, B339, B620 and Z662 Technical Committees. He is a member of nine ASME Committees including B&PV Code Section VIII, B&PV Accreditation and ASME QAI-1. He is also a member for Canada on ISO-TC11 for the ISO-16528 Boilers and Pressure Vessels Standard. Ken has been successful representing Alberta's interests effecting a number of changes to different codes and standards for safety and effectiveness.

Ken is passionate about promoting pressure equipment safety and sharing of safety information. One method of sharing information is the publication of the quarterly ABSA "The Pressure News", a publication initiated as the "Boilers Branch Newsletter" back in 1980's and continued now for 30 years.

It was said in the National Board Bulletin that "Teaching has been a personally rewarding achievement for Dr. Lau, and subsequently, has left a distinctive mark on some of his students.". Ken is devoted to learning and to sharing his knowledge with everyone. Thus, ever since his school days he has been involved in teaching and he has lectured at a number of well known institutes. Very often, you will find him making presentations and conducting seminars promoting pressure equipment safety. Just recently, he was a Keynote Speaker in the 2013 Annual Conference of CINDE (Canadian Institute of Non-Destructive Examination) and a Branch Luncheon Speaker for the APEGA (Association of Professional Engineers and Geoscientists of Alberta).

Dr. Lau is a member of various professional, jurisdictional and learned organizations including APEGA, National Board, I.Mech.E., and ASME. In 2004, Dr. Lau received the CSA Award of Merit "in recognition of his outstanding leadership and expertise in the advancement of pressure equipment standards". In 2005, in recognition of his "exceptional engineering achievements and contributions to the engineering profession", he was elected a Fellow of the ASME. In 2009, he was awarded the National Board Safety Medal, the highest honour bestowed by the National Board of Boiler and Pressure Vessel Inspectors, becoming the 21st recipient of the Medal in the 90-year history of the pressure equipment jurisdictional organization. And in 2011, he was recognized with the ASME Dedication Award for unusual dedicated voluntary service to ASME standards development, an award "to one individual out of over 1500 volunteers participating on technical committees under the structure of the ASME Board on Pressure Technology Codes and Standards." And early this year, Ken was honoured during the 2014 annual conference of International Pressure Equipment Integrity Association in Banff as a "Member Emeritus" for his significant long term contribution to the industry led pressure equipment conference.

Alberta Municipal Affairs and ABSA would like to thank Dr. Lau for his long years of dedicated leadership. An event to recognize Dr. Lau's significant contribution on all aspects of pressure equipment safety will take place later this year. ❖

NEW EDITIONS OF CSA B51 AND CSA B52

The new edition of CSA B51-14 *Boiler, pressure vessel, and pressure piping code* was released in February 2014 replacing the previous 2009 Edition. Changes introduced include the addition of (i) new definitions in Clause 3, (ii) Clauses 4.1.9, 4.1.10, 4.2.5, 4.2.6, 6.2.2, 7.1.2, 7.1.4, 11.5, 12, 13, (iii) table 5, and (iv) Annexes I and J. The new Edition of CSA B51 also includes numerous updates of Clauses, Annexes, and Table 1. A detailed update on changes in the Code was provided to the industry as part of the annual "ABSA Code Update Seminar" in October 2013 with updates on the latest development in legislation and codes and standards.

The new edition of CSA B52-13 *Mechanical refrigeration code* was issued in December 2013 and replaced the previous 2005 Edition. Changes to the Code include (i) new definitions in Clause 2, (ii) Clauses 5.2.9.1(c), 7.2.2.4, 7.2.3.2, 7.2.3.2.1, 7.2.3.2.2, 7.3.6.5, 8.4.4, and (iii) Annexes J, K and L. The new Edition of CSA B52 also includes updates of Clauses 4, 5, 6, 7, 8 and table 6. ❖

SYNOPSIS OF BOILER AND PRESSURE VESSEL LAWS ONLINE

The National Board has a new online service to provide a compilation of boiler and pressure vessel requirements in the various jurisdictions in Canada and the United States. This information may be of value for companies providing equipment to any of those jurisdictions.

NB-370, *National Board Synopsis of Boiler and Pressure Vessel Laws, Rules and Regulations* is available at <http://www.nationalboard.org/ViewAllSynopses.aspx>. The National Board cautions that: "Users are reminded each synopsis is only a brief outline or distillation of a specific jurisdiction's laws, rules and regulations" and "users are advised to consult the jurisdiction's chief inspection officer before reaching any decision that may have critical consequences." ❖

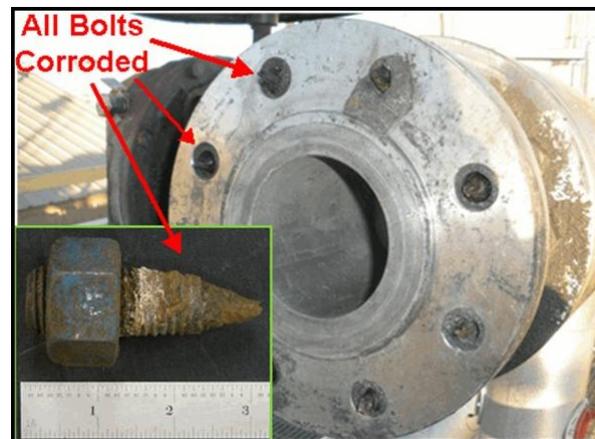
FLANGE LEAK TESTING AFTER A SHUTDOWN

There is a common practice used in industry for leak testing flanges after a shutdown and at start-up. Duct tape is wrapped around flanges at start-up with a small hole pierced in the tape. This concentrates the gas at the hole making it easier to detect leaks.

If the tape is not removed after start-up, intermittent flange leaks can create "micro-environments" that may well be highly corrosive for the bolts and the gasket outer ring. With corrosion, the cross-sectional area of the bolts may be reduced considerably resulting in fracturing of the bolts under normal operating pressure, causing the flanged joint to fail and thus creating a potential disaster.

Owners do not expect flanges to leak after they have been leak tested, however potential condition changes, i.e. fluctuating temperatures, may be introduced on a flange sealed with this method with duct tape and cause unexpected situations.

It would be good practice to remove all tape after leak testing has been completed. ❖



HOTWORK ACCIDENT LEADS INDUSTRY TOWARDS BETTER SAFETY

A news release from U.S. Chemical Safety Board (CSB), on a fatal "hotwork" accident investigation highlighted the cooperation between government and industry and the US Government Agency's recommendations led to development and implementation of new procedures at DuPont de Nemours together with technical training sessions and refresher training of DuPont staff member.

It is important to emphasize that this fatal incident investigation was on "hotwork" which is not uncommon here in Alberta. Hot-tapping and other similar operations have always been an important part of industry activity, and is addressed in the AB-513 "Pressure Equipment Repair and Alteration Requirements". The topic of hot tapping is also discussed in "The Pressure news" Volume 18, Issue 1, March 2013.

The full press release of the U.S. Chemical Safety Board (CSB) can be found on the CSB website (www.csb.gov/csb-chairman-commends-dupont-for-its-updated-global-hot-work-standard-recommendation-to-company-closed-as-acceptable-response/) ❖

FORM AB-81 UPDATED

Please note that "**Completion of Construction Declaration**" **Form AB-81** has been updated to include the ABSA tracking number which references the specific piping project submission package. This is a mandatory field when completing the form. The updated form is now posted on ABSA website. Completed form may be submitted electronically to design@absa.ca ❖

ON-LINE RECERTIFICATION EXAMINATION

Recertification examination for In-Service Pressure Equipment Inspectors is now on line and the pass mark is 80%. On receiving log-in instructions from ABSA, you will be able to access this examination from home or the office.

The 25 question multiple-choice examination is based on the pressure equipment legislation, AB-506 (Inspection and Servicing Requirements for In-service Pressure Equipment), AB-513 (Pressure Equipment Repair and Alteration Requirements) and Information Bulletins issued by the Administrator. The examination questions were validated by teams of senior industry inspectors and senior ABSA safety codes officers.

For more information on the recertification process and the examination rules, please see ABSA's website at:

<http://www.absa.ca/ECprogram/InService/InServiceInspectorsReCertification.aspx> ❖

CHIEF POWER ENGINEER - AUTHORIZING SUPERVISION

With the amendment to the Power Engineers Regulation, on emergency basis, the Chief Power Engineer of a power plant "may, on a form acceptable to the Administrator, authorize a power engineer to provide supervision for a period not exceeding 96 hours, at a level not more than one rank higher than the certificate of competency held by the person". The Chief Power Engineer must notify the Administrator and the owner of the power plant within 96 hours. For more information and the authorization form (ABSA form AB-67a) for submission to the Administrator, please see:

<http://www.absa.ca/ECprogram/PowerEngineering/TemporaryCertificates.aspx> ❖

2014 18TH ANNUAL IPEIA CONFERENCE

The 2014 International Pressure Equipment Integrity Association (IPEIA) Conference had a total of 483 delegates, 49 speakers and 58 exhibitor booths. Together with exhibitors, organization committee members and other visitors, it was estimated that the conference attracted some 800 people making this conference one of the largest gatherings in North America on pressure equipment. A number of ABSA staff members attended and the interaction with industry members is an excellent opportunity for improving the pressure equipment safety program delivery in Alberta.

Dr. Ken Lau, the Administrator and Chief Inspector, was honoured as a Member Emeritus of IPEIA during the conference, "for making significant contribution to the IPEIA". The IPEIA conference was first conceived and organized, by ABSA and SAIT as a venue for pressure equipment stakeholders to freely exchange information on all aspects of pressure equipment safety. Ken Lau and Owen Baker of SAIT were instrumental in the start of the annual conference. While SAIT and ABSA continue to support the conference, the conference organization has been undertaken by industry. The other people who were also honoured as Member Emeritus of IPEIA are Owen Baker, Dan Violini, John Janzen, Heather Fairfield and Mark Palynchuk. The conference has been very successful in providing a forum for exchange of information. ❖

NATIONAL BOARD—83RD GENERAL MEETING

The 83rd Annual Meeting of the National Board will be held in Bellevue, Washington, USA and will be held on **May 12 -16, 2014** in conjunction with the ASME International Boiler and Pressure Vessel Code Committee meetings.

For further information, please visit the "infoLink!" page on the National Board Web site www.nationalboard.org, or contact the National Board directly at telephone 614-888-8320. ❖

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