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Previous issues of The Pressure News may contain information which is outdated or no longer valid.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

AMENDMENT TO THE PRESSURE WELDERS REGULATION (AR 169/2002)

The Pressure Welders Regulation (PWR) has been amended. The amendments will come into effect October 1, 2014. There will be 2 new certificates of competency, and changes to the Grade C Pressure Welder certification and performance qualification card provisions.

A "Welding Examiner in Training" certificate of competency has been established. This new certification allows an individual to work for a testing organization prior to passing all of the examination papers for full certification. The Welding Examiner in Training Certificate of Competency is non-renewable and is valid for period of 36 months. A candidate will have to pass paper 3 of the Welding Examiner certification examination and have 20/30 correctable vision before receiving this certification. This certification permits the holder to conduct performance qualification testing while working under the direction of the holder of a Welding Examiner Certificate of Competency employed by the same testing organization. A Welding Examiner in Training cannot sign performance qualification cards.

A "Pressure Tack Welder" Certificate of Competency has also been established. This certification enables individuals to perform tack welds on pressure equipment. This certification is limited to those candidates who hold qualification as a journeyman or apprentice welder or a journeyman in one of the following trades: boilermaker, steamfitter-pipefitter or structural steel and plate fitter. Employers or prospective employers are required to apply on the candidate's behalf and must have, in their quality management system, processes for managing the supervision and development of individuals performing tack welding. The initial certificate of competency examination will be conducted by ABSA. A successful candidate will be issued a certificate of competency and performance qualification card. The certificate of competency has no expiry date but the performance qualification card is valid for 2 years.

The amended Regulation now enables an authorized testing organization to apply, on a candidate's behalf, for a Grade C pressure welder certification.

The term of a Grade C Pressure Welders Certificate of Competency issued for welding of an urgent nature has been extended from 10 days to 30 days.

A manufacturer of pressure piping systems may now extend the expiry date of performance qualification cards by 6-month periods providing the requirements of section 8(8) of the PWR are satisfied. ❖

WHAT CAN YOU LEARN

ABSA offers a number of seminars to improve knowledge in various areas of Alberta pressure equipment safety program requirements. Topic areas include an overview of pressure equipment safety legislation and programs, pressure piping fabrication, shop fabrication, pressure relief devices, legislation for power engineers, design registration. The 2015 schedule is available at:
<http://www.absa.ca/ECprogram/Seminars/TrainingNews.aspx>

These seminars are also available for presentation at your site.

2014 ABSA ANNUAL CODE UPDATE SEMINAR

ABSA is once again hosting the Annual Code Update Seminar. The seminar will be delivered in Edmonton at the Four Points by Sheraton Edmonton South (7230 Argyll Road) on October 09, 2014. Also on October 16, 2014 this seminar will be delivered in Calgary at the Best Western Port O'Call (1935 McKnight Blvd. NE). You may register by visiting our website at www.absa.ca to download the registration form.

The topics of discussion are:

- Overview of Alberta regulations changes;
- Overview of B31.1-Power Piping, 2014 Edition changes;
- Overview of changes to the ASME Section VIII-Div. 1 Part UHX,
- Changes to the AB-25 (Manufacturer's Data Report for Pressure Vessels) Document;
- Upcoming changes in Codes and Standards;
- Overview of the recent ABSA organizational changes;
- Upcoming changes in the Design Registration Seminars;
- Overview of changes to the CSA B51 Boiler, pressure vessel & pressure piping code - 2014 Edition;
- Overview of the ASME Boiler and Pressure Vessel Code Errata;
- Overview of new or revised ABSA Documents and Information Bulletins;
- Upcoming changes in the Design Registration process;
- Open forum discussion. ❖

PRESSURE EQUIPMENT EXEMPTION ORDER AMENDMENT

The Pressure Equipment Exemption Order Amendment Regulation, AR 158/2014, came into effect July 22, 2014.

The Amendment Regulation brought in the following amendments to the Pressure Equipment Exemption Order (PEEO):

Two new exemptions - methanol injection tanks on pipelines under the Pipeline Act are now exempt from the Safety Codes Act and a pipeline as defined in the Oil and Gas Conservation Act is exempt from the Safety Codes Act; equipment, that was previously exempt from only the Pressure Equipment Safety Regulation (PESR), has now been exempted from other regulations as well and moved into one of two categories:

- 2(2) Exempt from the PESR, the Pressure Welders Regulation and the Power Engineers Regulation;
- 2.1 Exempt from the PESR and the Pressure Welders Regulation (therefore subject to the Power Engineers Regulation).

Equipment that was exempted from the PESR in section 3 of the PESR is now exempted in section 2(2) of the PEEO; PEEO s2(2)(j) Clarification of exemption for a pressure container that is integral to a mechanical device.

The Pressure Equipment Safety Regulation was amended to repeal PESR s3 (those exemptions were moved to the PEEO).

Up-to-date legislation may be accessed at the Alberta Queen's Printers website <http://www.qp.alberta.ca>. ❖

ALERTS FOR YOUR SAFETY

Alerts are safety warnings issued to the public or a specific group of people involved with pressure equipment. Alerts are commonly issued after an incident or accident has happened. Lessons learned, from the incident or accident, are passed to the public through an Information Bulletin as an Alert. Alerts may also be issued to support a manufacturer or third party in their efforts to inform users of a potential concern with a pressure retaining component.

Only one alert was issued by the Administrator in the past 3 months and posted at www.absa.ca:

IB14-007 Steam Traps recalled by Spirax Sarco due to concerns with the retaining ring.

Alerts can be accessed at <http://www.absa.ca/IBIndex/Default.aspx>.

You can subscribe (<http://www.absa.ca/Subscription.aspx>) to receive notification of Alerts that are posted at www.absa.ca. This is a free service with 4 categories of information to select. Alerts will be under the category *Information Bulletin*. ❖

DR. LAU RETIREMENT EVENT

A retirement/appreciation reception was held September 12th at the Radisson Hotel in Edmonton. The purpose of the event was to acknowledge Dr. Lau's retirement as the Administrator for pressure equipment in Alberta and the Chief Inspector of ABSA.

Many friends and fellow workers attended to take part in the event and express their appreciation to Dr. Lau. Tributes were heard from Municipal Affairs, National Board, ASME and friends from ABSA and the industry. There is no doubt that Ken has had a significant impact on pressure equipment safety over the last 36 years.

Following a short break, Ken will continue to assist ABSA part time in the area of codes and standards development and other consultation services.

ABSA's Mike Poehlmann began his role as Administrator and Chief Inspector on September 16th, 2014. ❖



TYPES OF REDUCED SUPERVISION UNDER THE POWER ENGINEERS REGULATION

Further to the article about reduced supervision in June 2014 Edition of the Pressure News, we have been asked to clarify the "types" of reduced supervision permitted under the Power Engineers Regulation (PER) AR 85/2003 as amended December 2013. Readers of this article will need to review the detailed requirements specified in the *Power Engineers Regulation* and ABSA document AB-528 *Requirements for Reduced Supervision of Power Plants, Thermal Liquid Heating Systems and Heating Plants* (AB-528) to fully appreciate and properly apply the rules. Questions about reduced supervision should be directed to your local ABSA safety codes officer, or to ABSA's Education and Certification department 780-437-9100.

Note that continuous supervision will satisfy the requirements for general supervision.

Plant Type	Supervision Prior to December 1, 2013	Supervision effective December 1, 2013		
		Basic Supervision	Reduced Supervision	
			Permitted	Conditions
Power plant that uses a thermal liquid under pressure of a blanketing gas not exceeding 700 kPa	PER s2 Continuous & overall supervision; Table 1 Supervision by 4 th Class or higher depending on plant rating	PER s2.1(1) & s3 General supervision; Table 5 including supervision by the holder of a Fired Process Heater Operator Certificate of Competency	PER s2.1(2) Intermittent unattended operation; May be supervised by the holder of a Fired Process Heater Operator Certificate of Competency	- remote location, and - administrative and engineering controls specified in AB-528
Power plant that does not produce steam and uses a water-glycol mixture with a minimum of 40 % glycol	PER s2 Continuous & overall supervision; Table 1 Supervision by 4 th Class or higher depending on plant rating	PER s2 No change	PER s2.1(2) Intermittent unattended operation; May be supervised by the holder of a Fired Process Heater Operator Certificate of Competency	- remote location, and - administrative and engineering controls specified in AB-528
Power plant operated for the purpose of recovering energy from waste heat	PER s2 Continuous & overall supervision; Table 1 Supervision by 4 th Class or higher depending on plant rating	PER s2 No change	PER s2.1(3) Competent operator with no requirement for certification; Intermittent unattended operation	- remote location, - reduced expansibility, - unfired, and - administrative and engineering controls specified in AB-528
Thermal liquid heating system	PER s3 General supervision; Table 5 Supervision by 4 th Class or higher depending on plant rating	PER s3 & Table 5 Added may also be supervised by the holder of a Fired Process Heater Operator Certificate of Competency	PER s3.1 Intermittent unattended operation	- remote location, and - administrative and engineering controls specified in AB-528
Heating plant	PER s4 General supervision; Minimum of 2 checks per day a minimum of 7 hours apart; Requires approval of the Administrator for one power engineer to supervise more than 2 heating plants;	PER s4 No change	PER s4.1 Each plant checked once per 24 hours, and Power engineer can supervise up to 5 non-steam plants or 2 steam plants	- outside normal Monday to Friday working hours, - remote monitoring, and - administrative and engineering controls as specified in AB-528

LOW TEMPERATURE OPERATION

It is no surprise that Alberta can get pretty 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 leading to injuries and death.

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. In order to help mitigate these occurrences, **it is important to implement an effective pressure equipment winterization program to prevent process accidents.**

Again, we want to emphasize that any pressure equipment that has been affected by the freezing of the contained fluid should 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, usually, components damaged by freezing can not be repaired.

The fatal accidents in 2012 (see <http://www.absa.ca/newsletter/2013-v18-iss2.pdf>) and early 2004 (see <http://www.absa.ca/IBIndex/ib04-003.pdf>) are good reminders that we should all be on guard of freezing damage of pressure equipment. ❖

PRETESTING A PRESSURE RELIEF VALVE

Pretesting is a function test that is performed after a pressure relief valve (PRV) has been in service, but before the PRV is disassembled for inspection and servicing.

The purpose of a pretest is to determine if a PRV would have operated on demand within the set pressure tolerance limits of the code for the entire period it was on the active duty.

The results of a pretest are used to create history, adjust the servicing and/or testing interval of the PRV and take corrective action as necessary to assure proper performance of the PRV when in service in the future.

The best option to pretest a PRV is to test it with the in-service process media and on the equipment it is installed upon. The best time to conduct a pretest may be the time the pressure equipment is scheduled to come off line. A pretest may be performed by raising the system pressure or using an Assist Lift Device.

The second best option to pretest a PRV may be by using test equipment that is installed at an owner's site or at a service shop, using the same media that was used when it was serviced and set the last time. Even after the media consistency is maintained, other factors such as change in installation conditions, damage during transportation of the PRV to a test shop, loosening of the corrosion products from the internals which may have affected the opening of the PRV, cold testing, etc., will still apply and tend to reduce the accuracy of pretesting.

How should you interpret the results of a pre test? What are some of the misinterpretations? To learn about the answers and detailed information on pretesting, please visit ABSA's website at <http://www.absa.ca/Inspection/PretestingPRV.pdf> to download the full version of this article. ❖

PLANT REGISTRY

In response to our stakeholders' requests, ABSA is developing a plant registry. This is a registry of the plants that have been assessed by an ABSA safety codes officer and rated in terms of kilowatt capacity in the context of the Power Engineers Regulation. The purpose of the assessment is to provide clarity about the plant ratings to the owner and the supervising engineers and operators.

The plant rating is used to determine the type of supervision, and the class of certification required for the supervising engineers or operators. Plant rating is also critical for power engineers with respect to operating experience, known as "firing time", needed to progress to the next level of certification. Having a plant registry will help to speed up the examination application process.

The purpose of the registry is to have a record of the assessment of the plant's rating. The registry will be a database maintained by ABSA. A document will be issued to the owner after the plant is assessed and included in the registry. The document will state the kilowatt capacity, the plant rating, and the minimum certification level for the supervising engineers. It will also include a listing of the equipment that is associated with the plant rating. ❖

FIRST PRACTICAL TEST FOR NEW CERTIFICATION

A Special Steam-powered Traction Engine Operator's Certificate of Competency was introduced effective December 1, 2013. This new certification is now required to operate a historic boiler. Qualification for this certification requires passing a written examination, completing supervised operating experience and passing a practical examination. The first practical examination was conducted at Beaverlodge Museum on August 13, 2014. All 7 candidates passed the practical examination.

The picture shows one of the steam traction engines (steamer) used for the practical examination and includes all seven candidates and two ABSA examiners. The steamer in the picture is a 1914 30HP Waterloo that is one of only two in existence. It is still used in threshing demos and in the parade. ❖



NATIONAL TOP STUDENT AWARD FOR 3RD AND 4TH CLASS POWER ENGINEERS

At this year's annual Interprovincial Power Engineering Curriculum Committee (IPECC) and the Standardization of Power Engineer Examinations Committee (SOPEEC) meetings held in June, the top power engineering student awards from PanGlobal Training Systems Ltd are:

4th Class Awards: 1st place to Brian Hartford, College of New Caledonia, British Columbia and 2nd place to Nathan Froese, Grand Prairie Regional College, Alberta;

3rd Class Awards: 1st place to Darren Nagel, Medicine Hat College, Alberta and 2nd place to Neil Hayes, Medicine Hat College, Alberta.

It is good to see that Alberta students continue to excel. ❖

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