



**MINUTES OF THE
THIRD PRESSURE EQUIPMENT SUB-COUNCIL MEETING OF 2022**

DATE: June 9, 2022

TIME: 9:03 a.m. to 4:00 p.m.

LOCATION: Safety Codes Council Office, Edmonton

PRESENT: *Sub-Council Members*
Henry Hau, Chair
Nate Bartley
Warren Kmicik
Geoff Kutz (until 3:11 p.m.)
Billy Lee, Vice Chair
Tony McWhannel
Elaine Wasylenchuk (virtually at 10:02 a.m.)
Nyssa Moore
Jacques St-Onge
Jim Rice (virtually)
Danielle Woroniuk (at 12:12 p.m.)

Safety Codes Council
Allison Karch, Kathryn Derkach

Alberta Municipal Affairs
Nick Monea, Colin Robertson (item 4.5)

ABSA
Mike Poehlmann, Robin Antoniuk, Djordje Srnica (virtually for item 4.3)

REGRETS: Justin MacNeil, Greg Gaudet, Bert Boulet, Robert James, Diederick Godin

RECORDER: Kathryn Derkach

2022 MEETINGS: September 8, November 3

1. Meeting Opening

The Chair called the meeting to order at 9:03 a.m. A round table introduction was held and declaring any conflicts of interest was discussed.

1.1 Agenda Adoption

Billy Lee / Geoff Kutz moved that the agenda be adopted, as circulated; CARRIED

1.2 Adoption of the March 17, 2022 Minutes

Nyssa Moore / Tony McWhannel moved to adopt the minutes of the March 17, 2022 meeting, as circulated; CARRIED

2. Matters for Decision

2.1. Proposed PER Exemption and New Definitions for Unfired Boilers

The Power Engineers working group is bringing forward a proposed solution to a longstanding topic regarding the requirement for power engineers to supervise the operation of certain types of 'unfired' boilers at process facilities. A 3 column document was created by the group and reviewed on screen.

The proposed solution is to establish a conditional exemption stating that the Power Engineers Regulation does not apply to an unfired boiler when the owner has specified an alternative competency verification process with an approved PEIMS. Two definitions, as follows, would need to be introduced to support the exemption:

- Unfired Boiler: a heat exchanger in which steam or other vapour is generated under pressure by the application of a liquid or gaseous heat source that is not products of combustion.
- PEIMS: a Pressure Equipment Integrity Management System for which a quality management system certification of authorization permit has been issued pursuant to Section 11(3) of the PESR.

The following was discussed:

- Rationale for the proposed exemption includes the following:
 - Unfired boilers present less safety risk than fired boilers when all other factors are equal, and safe operation can be achieved without the supervision of power engineers.
 - There is concern that power engineers who gain qualifying experience on unfired boilers are not properly prepared to operate fired boilers.
- They may be confusion around large and small boilers and what equipment would fall under this exemption. It was clarified that this exemption doesn't apply to competency programs that have been approved. If there is a PEIMS, then the responsibility is on the operator.
- It was clarified that this is solely about the operation of the boilers and would only apply to boilers that fall under the definition.

Tony McWhannel / Geoff Kutz moved to recommend that the Power Engineers Regulation does not apply to an unfired boiler when the owner has specified an alternative competency verification process with an approved PEIMS, and that definitions for unfired boiler and PEIMS be introduced to support the exemption; CARRIED

2.2. Closed Session

Nathan Bartley / Geoff Kutz moved to go into closed session; CARRIED

Nathan Bartley / Geoff Kutz moved to come out of closed session; CARRIED

2.2.1. Reappointment of Danielle Woroniuk

Jacques St-Onge / Billy Lee moved to recommend to the Board reappointment of Danielle Woroniuk to the Pressure Equipment Sub-Council to represent Education and Training for a term ending January 31, 2025, effective immediately; CARRIED.

3. Review Matters Arising/Action List

None identified.

4. Matters for Discussion

4.1. Working Group Reports

4.1.1. Power Engineers

Update was provided under item 2.1.

4.1.2. Pressure Welders

The group has not met since the last PESC meeting. Previously they have provided the feedback requested by Municipal Affairs around the Pressure Welders Regulations, and reviewed AB-515, AB-518, and AB-523.

4.1.3. PESR Codes & Standards

No update.

4.1.4. PESR In-Service Equipment

No update.

4.2. AMA Report

The Technical Advisor reported:

- There is a big push for hydrogen and the adoption of the B31.12 and B31.3 codes.
- Current codes and regulations around the nuclear industry are federal overseen and there is discussion about provincial adoption of CSA N285.
 - Currently ABSA does not have the authority to sign off on compliance with CSA N285. There's a lot of confusion in the industry around nuclear regulations.
 - CSA N285 mandates the design registration to a provincial regulatory authority.
 - CSA N285 is specific to CANDU reactors.
 - Ontario and New Brunswick have adopted CSA N285 because they have nuclear reactors operating.
 - CSA and the Nuclear Safety Commission are still trying to figure out how to regulate small modular reactors (SMRs).
 - There is also discussion around classes of equipment that refer to CSA B51 for construction and construction inspection.

- With the small modular reactors, there's no risk of a meltdown that burns through the containment vessels. However, provinces will still need to have a good understanding of the emergency response plan.
- It was noted that Bob Emmott from the ABSA Board of Directors may be able to speak to the PESC about the nuclear industry.

4.3. ABSA/Administrator Report

The Administrator reported:

- Summary of Unsafe condition, accident and fire reports
 - Forty nine conditions, accident and fire reports were entered since the last update (2022-03-17). One injury was report in this period and it was related to the release of hydrocarbon in a sample unit ignited and caused a fire. Owner believes the cause to be related to isolation procedures.
 - Brief descriptions are [available here](#).
- Information Bulletins
 - IB22-008: [Start of Construction Prior to Confirmation of Design Registration](#)
 - IB22-007: [Random Non-Destructive Examination \(including Radiography\) for a Designated Lot of ASME B31.3 Piping](#)
 - IB22-006: [Owner's Inspector Interpretation of ASME B31.3-2010, Interpretation 2-30 Paragraph 340.4\(a\)](#)
 - IB22-005: [Requirements for the Integrity Management of Grade 91 Steel Used Above Currently-Permitted Allowable Stresses](#)
 - IB22-004: [Requirements for Reduced Supervision in accordance with the PER](#)
 - IB22-003: [Declaration of Conformity as Alternative to Statutory Declaration](#)
 - IB22-002: [Pressure Equipment Safety Regulation Section 22 Changes to a Registered Design](#)
- New or Revised AB-500 Documents
 - AB-536: Requirements for the Integrity Management of Grade 91 Steel Used Above Currently-Permitted Allowable Stresses.
 - Edition: 2; Revisions: 0; Published: 2022-04-28
 - AB-528: Requirements for Reduced Supervision of Power Plants, Thermal Liquid Heating Systems, and Heating Plants
 - Edition: 4; Revisions: 0; Published: 2022-04-14
- Industry inquiries
 - Requests for introduction of CSA N-285 in Alberta Regulations
 - Requests for introduction of ASME B31.12 in the Alberta Regulations
- Codes and Standards
 - ASME
 - The ASME Boiler Code Week meetings were held in person from May 1st to May 6th, 2022 in New Orleans. Highlights of the May meetings are as follows:
 - Technical Oversight Management Committee (TOMC)
 - It was reported that all ASME Boiler Code Meetings will be held virtually in August, and the November meetings will be held in-person.
 - Discussion – virtual meetings vs in person meetings

- Code Week has morphed into Code Weeks or Code Month
 - What is the correct mix of virtual and face to face?
 - ASME has four main products of Post Construction. The Post Construction Code Committees are working on 2022 edition of:
 - PCC-1 – Guidelines for Pressure Boundary Bolted Flange Joint Assembly
 - PCC-2 – Repair of Pressure Equipment and Piping
 - PCC-3 – Inspection Planning Using Risk-Based Methods
 - PTB-2 – Guide to Life Cycle Management of Pressure Equipment Integrity
 - Boiler and Pressure Vessel (BPV) Section VIII
 - The ASME BPV VIII Standards Committee started working on restructuring and complete rewrite of Section VIII, Division 1 with the intention to publish it in 2025.
 - Code cases 3042 and 3043 have been issued. These code cases allow the use of ASME B16.5:2020 and B16.47:2020 standards in lieu of 2017 edition of these standards.
 - Many proposed changes are scheduled to be balloted. The more information about these code changes will be available after August and November ASME code Week meetings.
 - ASME started balloting rules for the design and construction of fired heater treater vessels. This type of pressure equipment is commonly used in Alberta.
 - The Sub-Group General Requirements had a special meeting in April 2022 to review TG on Scope findings.
 - CSA B51
 - The CSA B51 Technical Committee (TC) meeting was held virtually on April 11th, 2022.
 - TSC on Modernization:
 - TSC is providing responses to the eight ballots comments and revising proposals accordingly
 - TSC on Boilers
 - TSC is preparing a proposal for the revision of blowdown/blowoff vessels
 - TSC on Pressure Vessels
 - TSC is preparing a proposal for the revision of ammonia vessel requirements, and proposals for introduction of requirements for carbon steel toughness and pneumatic testing
 - TSC is working with CSA B52 TSC on Ammonia Refrigeration Systems to address specific requirements in CSA B51, Clause 7 for pressure vessels using ammonia as refrigerant.
 - TSC on Parts 2 & 3

- The proposal is to move the requirements from CSA B51, Part 2 to NGV2 and HGV2. CSA is conducting the public review of these standards and links are:
 - [CSA NGV 2](#)
 - Comment deadline: June 25, 2022
 - [CSA HGV 2](#)
 - Comment deadline: July 11, 2022
- TSC is working on the proposal to move the requirements from CSA B51, Part 3 in CSA B51, Part 1 and some installation requirements in CSA B108.
- CSA B52
 - The CSA B52 Technical Committee (TC) meeting was held virtually on June 7th, 2022.
 - Several proposals for code revision were reviewed and will be on B52 TC ballots soon.
 - Some upcoming changes in B52, in context of Machinery Room reclassification (Class T will be eliminated), may have impact on Alberta because Alberta Building Code references B52. There are also some other changes coming, specifically related to Ammonia plants and residential systems. An assessment is needed to evaluate the overall impact on Alberta and different disciplines (e.g. building, pressure equipment) involved in refrigeration systems.
 - There was another incident in BC where one person died after an ammonia leak in ice-making facility. There is a link to CBC: <https://www.cbc.ca/news/canada/british-columbia/ammonia-leak-rcmp-1.6466984>
 - Ammonia subcommittee is working on gap analysis by comparing the requirements in CSA B52; IIAR 2, and ASHRAE 15. By removing ammonia ASHRAE 15, the issue was created in B52. In many cases, B52 referred to ASHRAE 15 for ammonia refrigeration systems. The preliminary findings indicate differences that will need to be addressed.
- CSA Z662
 - The next CSA Z662 Technical Committee (TC) meeting is scheduled for June 15th, 16th, and 17th, 2022. The meeting will be held virtually. The plan is to address the public review comments and vote on final version of the Z662 that will be published in 2023.

4.4. Council Updates

A written report was included in the portal and updates were provided on:

- The Council office has reopened.
 - Staff may continue to work from home on some days.
 - All meetings that have been identified as tentatively in-person remain so.
 - There is always the option for members to participate in in-person meetings virtually instead; however, we encourage all members to attend in person if

possible. Please let Council staff know if you must attend an in-person meeting virtually.

- Council AGM and volunteer appreciation event is being planned for the fall.
 - There will not be a spring Council Conference in Banff.
 - The Dr. Sauer award will be handed out at the volunteer appreciation event and nomination forms can be found on the member portal home page.
- Council Member Training
 - Save the date for courses offered in the fall:
 - Appeals Training: November 15 & 16, 2022.
 - Effective Meetings: October 31 & November 1, 2022.
 - Contact gerry.letendre@safetycodes.ab.ca to register.

4.5. PESC Strategic Alignment and Scenario Planning

Presentations were created to give context to the discussions on strategic alignment and planning of future work of the sub-council. This discussion will continue at the September meeting once members have had time to digest the information from today's session.

4.5.1. Presentation: Council Mandate and Role

Council staff reviewed the presentation on the Council's mandate and the role of the sub-council that was posted in the member portal.

Highlights included:

- The vision, mission, values and mandate of the Safety Codes Council were reviewed.
- The governing documents of the Council include: the Safety Codes Act and Regulations, Mandate and Roles document, Council Bylaws and Council Policies.
- The Strategic Pillars of the Council that PESC can help achieve include:
 - Enhance technology to drive innovation in Alberta's safety system
 - Support harmonization and promote the consistent application of codes and standards
 - Evolve educational programming to meet the needs of the system
- An overview was provided of how the Council interacts with Municipal Affairs.
- As per the Council bylaws, section 7.2, the sub-council's duties and powers are:
 - Shall carry out any activities directed by the Board
 - May make recommendations about codes and standards
 - May provide technical advice regarding SCO certification
 - May provide technical advice regarding standards for accreditation
 - May recommend changes to its membership matrix
 - May establish working groups to advise it
 - Shall work with other sub-councils to ensure the purposes for which it was established are considered in all they do
- Sections 4.4 and 8.2 of the Mandated and Roles document talk about issues and opportunity identification:
 - The Council's mandate includes support of the Minister's administration of the safety codes system by collecting and analyzing information from the system that identifies issues, trends and improvement opportunities and sharing their findings with the Department.

- Council Members, Council staff, and department staff may actively participate on committees of the Council, Department, GoA, or SDOs technically studying issues related to the Act and safety codes system.
- Through collaboration, cooperation and discussion, designates of the Council and the Department will determine the approach and the process for sharing information on a regular basis, and the most effective way to address urgent matters, emerging issues and opportunities.

Strengths of the sub-council include:

- There's a lot of technical expertise in the room.
- No one person or industry segment is driving the agenda/discussion.
- There's always open discussion.
- The sub-council is very solutions focused.

Weakness of the sub-council were identified:

- There is under representation from smaller organizations. There are a lot of 1 or 2 person operations that don't have an understanding of the Safety Codes Act. It was noted that PESC meetings are open to the public so any member of industry is able to attend meetings and if there are issues that need to be discussed, members of industry are welcome to make a presentation to the sub-council.

4.5.2. Presentation: Alberta's Pressure Equipment Safety System and ABSA

The President and CEO of ABSA, Mike Poehlmann, gave a presentation around Alberta's Pressure Equipment Safety System. Highlights included:

- An overview of the Safety Codes Council authorities and their governing documents .
- ABSA participates on the Advisory Committee for the Safety Codes Council's Accreditation Program review and provides strategic advice on options of change and implementation.
- Overview of the role and function of the Administrator and ABSA at the PESC.
- The ABSA Service Delivery Structure was reviewed on screen.
- ABSA Business Plan major themes and strategic goals include:
 - Harmonization
 - National standard for plan rating and power engineers (2024)
 - Common CRN design review approach (2021)
 - QMS requirements harmonized in Western Canada (2024)
 - Conformity Assessment Requirements in CSA B51 (2024)
 - Innovation
 - Increased online seminars (2021)
 - CRNOnline web portal (2021)
 - Online examination proctoring (2023)
 - Technology
 - Power engineer online database (2021)
 - Online access to owner equipment records (2023)
 - Online accident reporting information system (2022)
 - Remote video inspection procedures (2021)
 - Globalization
 - Quality programs for core programs aligned with international standards (2021)

- Conformity Assessment Body accreditation (2023)
 - International technical committees (2025)
- Items to consider for the PESC environmental scan
 - Harmonization
 - Globalization
 - Technology/Innovation such as hydrogen economy and nuclear energy

4.5.3. Presentation: Understanding Government Policy

The Manager of Policy at Municipal Affairs, Colin Robertson gave a presentation on understanding government policy. Highlights included:

- Policy is a course or principle of action adopted or proposed by a government that governs us collectively and as individuals.
- Authority for government policy comes from the Constitution and from Acts passed by the Legislature.
- Acts allow government to take action to address an issue through a wide variety of policy tools:
 - Regulations – create more laws to address an issue
 - Spending – spend money to address an issue (the Budget)
 - Exemptions – exempt something from a set of laws
 - Operational polices
 - Enforcement
 - Interpretation
 - Processes
 - Financial
 - Variances
- Strategic policy is an overarching direction of a government often rooted in a government’s political philosophy and the environment.
- Government policy is developed by:
 - Issue identification
 - Research and analysis
 - Options development
 - Decision making
 - Implementation
 - Evaluation / performance measurement
- Policy makers will often ask “Do we need a new law to solve the issue or can the issue be solved through an operational policy?” to determine which policy to use.
- If an issue can be solved through operational policy, policy makers greatly prefer that path.
- It’s important to remember that laws are drafted for lawyers and judges to interpret, while plan language is desired, if a legal tradition or requirement needs to be made, then that is what the drafter will need to do.
- Relative to the policy cycle, the Council provides the stakeholder function, as outlined in the Safety Codes Acts as the advisory role.
- Municipal Affairs policy staff are now assigned to each discipline to support the Administrator.

4.5.4. Review list of potential discussion topics already identified

The potential discussion topics were reviewed on the screen. The following was discussed:

- Shortage of trained/qualified individuals
 - Major issue in the industry. The NDT industry is not seeing new people come into the industry.
 - Often government will provide funding to educational institutions for industry programs as they see shortages in that industry.
 - IPEIA has an education committee that Nate will bring back information on. [Bartley]
 - It was asked whether there is anything in pressure equipment safety legislation that may be causing the lack of qualified individuals, and it was suggested that the requirements for retaining NDT certification may be too onerous.
 - It was noted that encouraging people to enter the industry may be out of scope.
- There are issues with smaller operators not having a full understanding of NDT training requirements, and there's a perception that it's weighted towards the advantage of bigger companies.
- ABSA's and APEGA's working relationship was discussed.

4.5.5. Brainstorm other potential topics to add

PCL Industrial Constructors Inc. has sent a letter to the PESC, ABSA and Municipal Affairs asking for support in adopting the CSA N285.0 Standard, "General requirements for pressure-retaining systems and components in CANDU nuclear power plants/Material Standards for reactor components for CANDU nuclear power plants", as well as ASME Section III, Division 5, "High Temperature Reactors".

It was noted by Billy Lee and Nate Bartley that there may be a perceived conflict of interest based on their work relationship with PCL and Acuren, respectively. Both abstained from discussions and voting around this issue.

Nyssa Moore / Jacques St-Onge moved to create a working group to investigate CSA N285 and the potential for its adoption in Alberta; CARRIED with two abstaining.

Danielle Woroniuk / Jacques St-Onge moved that membership of this working group include Danielle Woroniuk, Nyssa Moore, Henry Hau, Jacques St-Onge with support from Municipal Affairs, ABSA and industry as required; CARRIED with two abstaining.

Danielle Woroniuk / Jacques St-Onge moved that the working group will have a final report ready for June 2023; CARRIED with two abstaining.

The PESC Chair will respond to the letter indicating that the sub-council is reviewing these codes and will update them once the sub-council has made a recommendation. [Hau]

4.5.6. Identify whether each item is within PESC's scope

Comments regarding what is within and outside of PESC's scope were made throughout the previous discussions. Discussions will continue at the September meeting.

5. Meeting Finalization

5.1. Round Table

- Members were reminded of the Dr. Sauer award nominations. Forms can be found on the member portal.

5.2. Next Meeting

The next meeting was reconfirmed for Sept. 8, 2022 tentatively at the Council office at 9:00 a.m.

5.3. Meeting Adjournment

The meeting was adjourned at 4:00 p.m.

– NEW ACTION ITEMS –

4.5.4. Review list of potential discussion topics already identified

Shortage of trained/qualified individuals - IPEIA has an education committee that Nate will bring back information on. [Bartley]

4.5.5. Brainstorm other potential topics to add

The PESC Chair will respond to the letter letting them know we are reviewing these codes and will update them once the sub-council has made a recommendation. [Hau]

– MOTIONS –

1.1 Agenda Adoption

Billy Lee / Geoff Kutz moved that the agenda be adopted, as circulated; CARRIED

1.2 Adoption of the March 17, 2022 Minutes

Nyssa Moore / Tony McWhannel moved to adopt the minutes of the March 17, 2022 meeting, as circulated; CARRIED

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Tony McWhannel / Geoff Kutz moved to recommend that the Power Engineers Regulation does not apply to an unfired boiler when the owner has specified an alternative competency verification process with an approved PEIMS and that definitions for unfired boiler and PEIMS be introduced to support the exemption; CARRIED

2.2. Closed Session

Nathan Bartley / Geoff Kutz moved to go into closed session; CARRIED

Nathan Bartley / Geoff Kutz moved to come out of closed session; CARRIED

2.2.1. Reappointment of Danielle Woroniuk

Jacques St-Onge / Billy Lee moved to recommend to the Board reappointment of Danielle Woroniuk to the Pressure Equipment Sub-Council to represent Education and Training for a term ending January 31, 2025, effective immediately; CARRIED.

4.5.5. Brainstorm other potential topics to add

Nyssa Moore / Jacques St-Onge moved to create a working group to investigate CSA N285 and the potential for its adoption in Alberta; CARRIED with two abstaining.

Danielle Woroniuk / Jacques St-Onge moved that membership of this working group include Danielle Woroniuk, Nyssa Moore, Henry Hau, Jacques St-Onge with support from Municipal Affairs, ABSA and industry as required; CARRIED with two abstaining.

Danielle Woroniuk / Jacques St-Onge moved that the working group will have a final report ready for June 2023; CARRIED with two abstaining.

– WORKING GROUP MEMBER LISTS –

WORKING GROUP	WORKING GROUP MEMBERS (Chair)
Power Engineers	<u>Tony McWhannel</u> , Bert Boulet, Henry Hau, Danielle Woroniuk, Jim Rice, Mike Lyne, Todd Loran, John Wolff, David Miller, Warren Kmicik ABSA: Mike Poehlmann, John Siggers
Pressure Welders	<u>Billy Lee</u> , Geoff Kutz, Nyssa Moore, Jacques St-Onge, Robert James, Nate Bartley, Henry Hau, Justin MacNeil, Rick Walmsley, Matt Yarmuch ABSA: Mike Prefumo, Jason Reinhart
PESR Codes and Standards, Design Registration and Shop Inspections	<u>Greg Gaudet</u> , Henry Hau, Billy Lee, Tony McWhannel, David Miller, Eric Madsen, Jim B. Seale, Neil McKay, Shawn Morrison, Trevor Seipp, Diederick Godin, Kelly Bell ABSA: Djordje Sronic
PESR In-Service Inspections, Repairs & Alterations, and PEIM Program	<u>Geoff Kutz</u> , Greg Gaudet, Henry Hau, Todd Loran, Nyssa Moore, Jacques St-Onge, John Wolff, Nate Bartley, Diederick Godin (Vice Chair), Jim Rice ABSA: Mike Poehlmann, Mike Prefumo, John Siggers
CSA N285	Danielle Woroniuk, Nyssa Moore, Henry Hau, Jacques St-Onge Support from Municipal Affairs, ABSA and industry as required.