Technical Standards and Safety Authority
Minutes of the Boiler & Pressure Vessel Advisory Council
Meeting on May 2, 2019

Present: Joe Adams (Chair), Sleegers Engineered Products Inc; Mario Gagic, BWXT Canada Ltd.; Yan Huang, Royal & Sun Alliance; Ryan Jones, Royal & Sun Alliance; Brad Law for David Stek, OPIA c/o Shell Canada; John Milton, Ontario Recreation Facilities Association; Ed Narejko, ArcelorMittal Dofasco; Fred Oliver, MCA Sarnia c/o Kelgor (on Skype); Hillar Prits, CIMCO Refrigeration; Kavita Ramcharan, CBMUA & BI&I; David St. Martin, Ontario Power Generation; Brian Taylor; CBS c/o Waterloo Manufacturing Co. Ltd.

Mike Adams, Director, BPV and OE; Tom Ayres, Vice President, General Counsel and Legal; Dan Brazier, Chief Financial Officer (item 10); Sandra Cooke, Ombudsman (item 1-8); Danielle Fernandes, Council Coordinator (interim); Kristian Kennedy, Manager, Government Relations; Humphrey Kisembe, Policy Advisor; Bonnie Rose, President & CEO (item 1-7); Ian Shaw, Stakeholder Relations Advisor; Cathy Turylo, Manager, Engineering; Robert Wiersma, Manager, Public Safety Risk Management (item 9)

Guests: Diane Allen, Senior Policy Advisor, MGCS; Justin Clappison, ArcelorMittal Dofasco; Nathan Fahey, Manager, MGCS; Ryan McLachlan, Sleegers Engineered Products Inc.; Erick Morales, Senior Policy ad Program Analyst, MGCS

Regrets: Michele Cheng-Newson, Organization of Canadian Nuclear Industries; Jamie Webb, MCAO c/o Anderson Webb.

1. Constitution of Meeting

The Chair called the meeting to order at 9:30 a.m. He welcomed new members J. Milton and D. St. Martin to the Boilers and Pressure Vessels Advisory Council.

For the Safety Moment, K. Kennedy provided some context and Council was shown a short video from the U.S. Department of Transportation on the dangers of refilling non-refillable DOT39 propane cylinders, such as the 1lb cylinders used for camping.

2. Approval of agenda for May 2, 2019

Council approved the meeting agenda of May 2, 2019 as presented.

3. Approval of Minutes of December 6, 2018

Council approved the minutes of December 6, 2018 as presented.

4. Review action items from last meeting

J. Adams treated the action items as read. Pending action items would be addressed at today’s meeting. As it relates to the action item for BPV Priorities for FY20 it was later clarified that this was addressed in the TSSA President & CEO’s report to Council with the inclusion of the Strategic Plan.

5. Chair’s update

a. Propane tank inspection

J. Adams summarized the findings of the previous Risk Reduction Group (RRG) for inspections on propane tanks and noted that implementation of the recommendations by the Fuels Safety program has not occurred. He will continue to provide updates until implementation is complete.
b. **Outstanding issue in Fuels Safety relative to piping systems**

Joe Adams advised that the Fuels Safety (FS) issue for piping systems that was identified last July during the review of the joint safety bulletin between FS and Boilers and Pressure Vessels Safety, remains an outstanding item. He added that Fuels is to bring this issue forward to an RRG and added that he would keep Council abreast of any developments.

### 6. TSSA President & CEO report

B. Rose treated the President and CEO's Report to Advisory Councils, distributed prior to the meeting, as read. She provided a brief update on the Auditor General (AG) and advised that as soon as TSSA’s AG action plan is finalized and approved by government, it will be shared with the Advisory Councils. B. Rose further provided an overview of TSSA priorities, at the Council’s request, specifically she spoke to the 5-year Strategic Plan, providing a summary of the pillars and strategic goals therein. She confirmed that TSSA is currently focused on delivering the Strategic Plan, adding that the plan is consistent with the findings in the AG report. In providing an overview of the 5 pillars of the Strategic Plan, B. Rose advised the following:

- **Pillar 1: Modern Regulator Framework**
  - This pillar refers to the development of a modern regulator framework that emphasizes evidence-based decision making and is in line with our transformation to become an outcome-based regulator.

- **Pillar 2: Service Excellence**
  - This pillar refers to the use of feedback to improve service delivery and fostering relationships that are collaborative and transparent, this includes redefining the CSRO role as well and improving inspector consistency.

- **Pillar 3: Safety Awareness & Active Compliance**
  - This pillar encompasses several initiatives that make TSSA more consumer friendly. This includes the delivery of programs that are risk-informed and provide value for money, the use of internal and external communications that work to enable the strategic plan, and accountability and transparency in our operations and performance.

- **Pillar 4: Engaged People & Effective Teams**
  - This pillar represents a cultural change within TSSA which is less enforcement focused and works to enhance our team effectiveness.

- **Pillar 5: Solid Operational Foundation**
  - This final pillar relates to the enhancement of our IT systems and peer review of our risk framework. B. Rose noted that the success of the outcome-based regulator model depends on sound data and analytics.

In regard to the 20/20 project being on pause, B. Rose confirmed TSSA had initially two separate initiatives – the 20/20 project and the COI portal. Since the portal is not functioning as planned, B. Rose confirmed that it is now being wrapped into the 20/20 project, which will be taking a phased approach for implementation, with BPV being the first release followed by the Fuels program. Additionally, in response to a question from Council regarding the revocation of the Upholstered and Stuffed Articles (USA) program, B. Rose confirmed that the revocation has resulted in both a revenue loss and a reduction of headcount and that in spite of this, TSSA is still moving toward the elimination of cross-subsidization. B Rose also discussed the required cultural change for the TSSA, additionally she noted that the risk framework would be peer reviewed.

**Action:** D. Fernandes to include explanation of the 5 pillars of the Strategic Plan in the meeting minutes.

### 7. Action Plan in response to AG report

T. Ayres spoke to this item and provided a brief overview of the AG recommendations, confirming that the major themes identified in the recommendations are consistent with TSSA’s Strategic Plan. He advised that
the BPV program was the direct subject of only one recommendation (specifically recommendation 18), however, he noted that there are general recommendations that could have applicability to the BPV sector. As it relates to recommendation 18, T. Ayres noted that the AG estimates that there are approximately 65,000 BPV devices, of which TSSA only inspects 2%. He added that the AG was critical of this and has noted that TSSA does not know the state of safety for most BPV devices in the province. He noted that although there is significant work to be done in the BPV program area, many of the recommendations are consistent with where TSSA is going (i.e. outcome-based regulator) and some have been pre-empted with the adoption of the regulation changes that came into effect on July 1, 2018, adding that TSSA is committed to meeting all AG recommendations.

During the discussion, K. Ramcharan identified that TSSA should not minimize the training issue as this will provide standardization and help with inspector consistency. B. Rose made note of this comment. In response to a question from Council regarding timelines, T. Ayres advised that the action plan has been sent to the Minister and that TSSA is awaiting approval. N. Fahey added that the Minister has been briefed and a formal response should be expected within the next few weeks. In response to a concern that the action plan would not be available for Council review prior to being put in action, B. Rose and T. Ayres reconfirmed that the Strategic Plan echoes the action plan, and that TSSA is committed to call upon industry for input on the action plan should consultation be required. There was some discussion as to how risk-based inspection could be applied in the BPV area. The TSSA indicated will be soliciting industry input relative to implementation of the action plan as it progresses, not reporting after the fact.

**Action:** TSSA to provide an update on the action plan and status as it relates to the strategic plan.

8. **TSSA’s Transformation to an Outcome-based regulator**

S. Cooke spoke to this item, referring to the PowerPoint presentation shared with Council prior to the meeting. She elaborated on TSSA’s move towards becoming a collaborative, outcome-oriented regulator. This will involve a revision to the organizational structure. Specifically, it was noted that this change represents a cultural shift on TSSA’s part that looks to work with regulated communities to increase compliance through education and compliance support. As it relates to the BPV program, she emphasized the importance of checklists in achieving inspector consistency and transparency, accurate data driven rating systems for ‘good players’ to facilitate compliance, and enhanced licensing as a tool for compliance. The plan is to provide non-compliant organizations with support and education instead of overreliance on order-writing. She advised that an external advisory group has been created to review this initiative and provide feedback.

In response to a question regarding what effective deterrence would look like as it relates to the BPV sector, S. Cooke noted that currently we use orders as a mechanism for deterrence and that we are in the beginning stages of this initiative and do not have the data to determine what deterrence will look like in the future. T. Ayers added further that today oversight for BPV devices is shared between owners, the insurance companies, and TSSA. This tripartite system of oversight does not include the ability for TSSA to license insurers, which results in limited enforcement tools for deterrence as it relates to insurance companies that may not be meeting their regulatory obligations. In response to a question from Council regarding self-declarations and what that means, S. Cooke noted that her presentation is created for all sectors and certain aspects of it may not be applicable to all sectors. Further in response to questions regarding timelines and responsibility, S. Cooke noted that the plan has been approved by the Board which included dates, accountabilities, and deliverables, this can now be shared with the Council.

**Action:** TSSA to share Outcome-based regulator timeline approved by Board

9. **Safety and Compliance report**

R. Wiersma and M. Adams spoke to this item and referenced the report circulated prior to the meeting. R. Wiersma provided an overview of priorities and monitored issues (‘hot spots’) for the ED and Fuels sectors. He advised that the DALY weighted values have been updated and certain incidents have been weighted.
differently due to more information regarding severity (i.e. concussions), adding that this could have contributed to the increase in the number of reported occurrences in FY19. For the BPV program, R. Wiersma noted that there is currently a 99% compliance rate (assessed through periodic inspections), among uninsured devices, from FY18 Q4 to FY19 Q3. R. Wiersma confirmed that there were 237 inspection conducted in the first 3 quarters of FY19, adding that there were only 3 orders issued through these inspections. It was noted that the compliance rate does not include the insurance company inspections.

a. Incident/issues report

M. Adams spoke to this item providing an overview of the 8 occurrences for the first 3 quarters in FY19 which were distributed to Council prior to the meeting. He noted that TSSA has decreased the threshold for reporting of refrigerant leaks for the Spills Action Centre (SAC), which now means that we have visibility to all occurrences. He added further that we would be performing analytics on this data to confirm if changes are required.

In response to a question from Council regarding the reporting parameters of SAC, M. Adams confirmed that they do report how much refrigerant was leaked and whether safety controls were functioning, adding that in all 8 cases the safety controls were functioning. M. Adams also advised, in response to a questions from Council regarding rusting of a unit, that TSSA is working on gathering data on equipment chiller age, further adding that we are now starting to collect data on the age of the chillers for inspections conducted under the Operating Engineers (OE) program. He noted that TSSA should always be contacted if there are concerns about safety issues. In response to the Council’s question regarding if TSSA reports these occurrences to insurers, M. Adams noted that currently we do not have a system in place to automatically report to insurers, adding that these occurrences were reported to TSSA through SAC in accordance with the Memorandum of Understanding to report any release to atmosphere.

In response to a question regarding lessons learned from the ammonia leak in Fernie BC, M. Adams advised that as an example, TSSA has begun capturing data related to chiller life. Further, C. Turylo added that work is being done to implement Fernie recommendations into the B52 Mechanical Refrigeration Code handbook to be issued late 2019 or early 2020. There was some further discussion on lessons learned from Fernie, including comments from Council that TSSA appears to be taking a measured but slow approach, how to deal with unqualified contractors, the significance of getting information out to the front line (i.e. insurers and those in the field) and the importance of condition assessment. It was noted that ORFA has several publications and news releases on it’s website relative to this situation.

b. Update on working group on defining near-misses

R. Wiersma spoke to this, noting that the working group met recently and had good dialogue, advancing our understanding of defining near-misses. He emphasized that TSSA is looking to drive decision-making with better data, adding that updates will be provided once available.

10. Fee review

D. Brazier spoke to this item and advised that the proposed fee increase, initially scheduled to take effect July 1, 2019, would include a 3% increase in the first year and then 2% in the subsequent years for the BPV sector. He added that the fee increase is still with the Ministry of Government and Consumer Services for review, however given there is a 60-day notification requirement, TSSA will not be proceeding with the proposed implementation of July 1, 2019 and is now aiming for an implementation date of August 1, 2019. He added that TSSA is working on revising the fee structure more generally as part of a future fee review and this would include consultation with stakeholders.
In response to a question from Council regarding the specifics of the fee increase, D. Brazier noted that the fee increase would be applicable to everything from inspections to licenses but will not apply to fees associated with the Certificate of Inspection (COI). Additionally, responding to a comment from Council regarding the difficulty for TSSA to not increase fees due to increased regulatory enforcement obligations expected of TSSA, D. Brazier noted that TSSA is trying to balance these competing interests. N. Fahey added that the government is looking at burden reduction legislation and removing unnecessary barriers on industry in some areas to offset broader mandates in others. He added that the government has committed to burden reduction bills at least 2 times a year, providing examples such as the revocation of the Upholstered and Stuffed Articles (USA) program and changes to the OE regulations as burden reduction initiatives. He further added that TSSA is working with the Ministry in reviewing and reducing burden on industry which may result in savings for industry or TSSA or both. Additionally, in response to a question from Council regarding the source of the increase in Q3 of FY22, D. Brazier noted that most of the increase can be contributed to the conclusion of the 20/20 project, adding that in FY19 we saw a reduction in spending (i.e. reduced vehicle expenses, head count etc.). FY20 will see an increase in spending due to increased investment, underpinned by the fee increase and driven by the Strategic Plan. D. Brazier noted, in response to a comment from Council that this fee model will likely become obsolete once TSSA adopts outcome-based regulatory enforcement. The current fee review is based on a 20-year old cost recovery model, adding that the model will be very different than the one we have now and should be in place by the 3rd year of the current fee projection.

Action: D. Brazier to send out BPV budget prior to next meeting.
Action: M. Adams to provide Council with a report of all periodic inspections and the number of inspectors doing those inspections (i.e. number of inspectors vs. number of inspections per annum).

11. Task group reports

   a. Non-compliance with COI (ROI issued)

      • Realignment of inspections – reducing burden on insurance companies

      M. Adams confirmed that once we reach a steady state, we will be in a better position to realign inspections for batching, noting that TSSA currently does this for other programs. He added that currently this is a manual process, and TSSA spends a lot of time correcting data as owners are becoming aware of data inaccuracies.

      • Timeline for issues with ROI process and submissions

      M. Adams noted that we are currently working on this matter, adding that it is a manual process. He further noted that the problem is that both the insurer model and the customer billing model are complex, and as a result, it is difficult to find a single solution to deal with these complexities. He noted that it will take at least a year for the COI portal to be fully functional. He added that the portal is functioning for insurer uploads, however TSSA is only getting about 60% of the ROIs, that were anticipated. M. Adams advised that of the 11642 insurer inspections in the last 10 months the compliance rate was 93%, the National Board has a compliance rate at 91%, adding that this indicates the status of BPV safety is being validated. In conclusion, the Chair recommended that this item remain on the agenda and updates be provided accordingly.

   b. New National Board requirements for inspectors to obtain an R Endorsement (Repair Inspector)

      M. Adams spoke to this item and advised that the TSSA is looking to create an RRG to review the issue of conditional passes which will also include an assessment of the R Endorsement information, noting that an update would be provided at the next meeting.
Action: TSSA to provide an update on the decision to create an RRG to review the issue of conditional passes.

c. Audits of insurers

M. Adams provided an update on insurer audits and advised that 2 audits have been completed with varying outcomes. Specifically, he advised that one audit went really well, due to the insurer having a well-developed inspection program. The second audit had a poor outcome since this company seems to operate on the basis of analytics and not by device. He noted that TSSA has a partnership with a 3rd party auditor that participated in these audits, confirming that the company that fairied poorly during its audit and would be re-audited again in the next few months. He noted that re-auditing is the only tool that can be employed to facilitate compliance, as the full audit fee ($4K) is charged for each audit/re-audit. There were several questions from Council, including if TSSA is considering rating systems and whether there is a schedule for audits. M. Adam advised that the rating system is something that is being explored as part of the outcome-based regulator model. He added that in terms of scheduling TSSA expects to complete 7 audits per year. In response to a question from Council regarding whether there would be coordination with National Board audits, M. Adams replied that this has been discussed, adding that these audits are fundamentally different and are focused on different aspects, noting further that the intention is not to duplicate efforts. He confirmed that TSSA would keep MGCS abreast of development.

d. Piping pressure tests

C. Turylo spoke to this item referring to the PowerPoint presentation circulated prior to the meeting, and provided background and context related to the issue (witnessing of pressure tests for ASME B31.3 piping systems). She noted that the timing of pressure tests cannot always be synchronized with the availability of TSSA inspectors, and that not all owners have an owner/user program implemented but have personnel or delegates which could qualify to be owner inspectors. As a path forward, the task group will be developing a written procedure/process that would allow owners to witness a pressure test in lieu of a TSSA inspector regardless of if they have a Certificate of Authorization (C of A) issued from TSSA.

Several council members noted that this was a good first step in the shift to becoming an outcome-based regulator. In response to a question from Council regarding the future operation of the owner/user C of A program, C. Turylo confirmed that this initiative applied only to the witnessing of pressure tests and that the owner/user program covers much more. There was also a suggestion made by Council to have a TSSA inspector present for the first test to verify it was being conducted correctly.

e. Split Systems using A1 Refrigerants

H. Prits provided the update and thanked C. Turylo for her work with the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) on this issue. Referring to the material distributed to Council prior to the meeting H. Prits advised that the task group met in January to discuss a proposal by HRAI to de-regulate refrigeration systems under 125kW using A1 refrigerants, noting there were many different viewpoints around table and many issues were discussed. The conclusion resulted in a unified proposal drafted by HRAI and the Ontario Refrigeration and Air Conditioning Contractors Association (ORAC). He further noted that the discussion focused on the new joint HRAI and ORAC proposal and centred around some form of a permitting system.

In response to a question related to the necessity of regulatory changes to allow for permitting, C. Turylo advised that TSSA and stakeholders need to review the specifics for permitting systems against the existing regulation and determine if it can be accommodated without regulatory change. Once this analysis has been completed, there will be a better sense of any necessary regulatory
amendments. N. Fahey noted that this is a good news story and is an example of how the burden reduction initiative can be used to facilitate regulation change, adding that it can be tied to either the fall or spring burden reduction bill, depending on the readiness of the analysis.

12. MGCS update

D. Allen spoke to this item and treated the report distributed to Council prior to the meeting as read. As it relates to the changes to the OE regulations, D. Allen noted that the Bill has passed and has received Royal Assent.

a. Agriculture Exemption

D. Allen provided Council with the background and context related to the agricultural exemption. She noted that recommendation 19 of the AG report deals directly with this and prescribes MGCS to conduct an assessment of the current exemption of agricultural operations from all regulations under the Technical Standards and Safety Act (TSS Act). She further added that over the next year MGCS will be conducting a review of this exemption, in consultation with both industry and agricultural stakeholders, and will report back to the Minister and to the AG.

In response to a comment from Council that this appears to be another delay in addressing the Council’s submission on the BPV agricultural exemption, E. Morales noted that the consultation process is not a delay, but rather a widening of scope to include agricultural exemptions in other TSSA administered regulations referenced by the AG report. J. Adams added further that Council should support this investigation and see this as a step in the right direction toward progress in this area. Several Council members reiterated that this exemption as it relates to BPVs poses a significant risk to public safety. J. Adams also reconfirmed that this Council supports the removal of the exemption. N. Fahey advised that MGCS needs the support of this Council in its analysis, noting that the issue needs to be addressed through evidence-based policymaking, where data drives decision-making while at the same time weighing the risks against mitigating factors.

b. Canadian Registration Number (CRN)

D. Allen provided the update and advised that Ontario is on track to sign Reconciliation Agreement on CRNs and thanked TSSA for supporting the finalized agreement. She added that over the next year MGCS will be working with TSSA and with other provinces on the implementation plan.

c. Rationale for not allowing insurance companies to provide service

D. Allen provided an overview of inspection types as they relate to the TSS Act and provided a historical overview of inspections specifically as they relate to the BPV program area in the CAD. She noted that TSSA derives this authority from the TSS Act, ASME accreditation, and the CAD. There was considerable discussion regarding this issue. R. Jones noted that this is not about qualification, but about insurers having been regulated out of providing this service, adding that some US jurisdictions do allow both jurisdictional and insurance inspections. N. Fahey advised, in response, that no other jurisdiction in Canada allows for shop inspections to be completed by 3rd parties and noted that in light of ongoing priorities, this item is not currently under further review. M. Adams added that the fundamental difference between section 9 and section 10 of the regulation is the structuring of responsibility expressed therein. S. 9 explicitly provides the responsibility over shop inspections to only the Director of the BPV program whilst S. 10 clearly identifies that the responsibility for in-service inspections are shared between TSSA and insurers. Some members requested striking an RRG to review the matter. Additionally, it was noted that if insurance inspection was allowed for shop work the issues of TSSA inspection availability in Sarnia currently under discussion in item 11 (d) would not be an issue.
Action: D. Allen to prepare a memo of presentation to go out with the next agenda.

13. Issues raised by Council members

a. Corrections for a registered design

C. Turylo spoke to the wording presented to council regarding design revisions/changes, presenting council with 2 questions for consideration: First, is the supplier expected to participate in the corrective action? And, second, what happens if there is more than one vessel? C. Turylo noted that if the design is fundamentally flawed, we must use mitigating factors to resolve the issue but disallow anything else to be manufactured under this design (i.e. no additional items built). In relation to question 2 -- How do we handle the items that have already been built? -- C. Turylo noted that the outcome will depend on the circumstances and the severity of the risk associated with a device that cannot be code compliant. She added having an open relationship with the end users will facilitate fruitful discussion with TSSA in order to improve safety for all involved.

Action: D. Fernandes to append the draft document to minutes.
Action: Council to provide feedback to C. Turylo regarding the draft document

b. Discussion of frequency of internal inspections

C. Turylo recommended differing creation of another RRG for this subject since consultations will need to be organized shortly for a new CAD to adopt latest editions of CSA B51 and B52. Council agreed to defer this item until consultations for the new CAD are completed.

14. Strategic direction - Changes in industry remerging trends and safety priorities

The Chair requested that this item be deferred to the next meeting.

Action: D. Fernandes to include this item on the agenda for the next meeting.

15. Advisory council administration

- Revised matrix

The Chair raised a motion to adopt the revised matrix. The motion was approved by council and the revised matrix adopted.

16. Adjournment:

The meeting adjourned at approximately 3:30 p.m. Council held a Council-only in-camera session without TSSA staff or guests followed by an in-camera session with B. Rose.
Appendix

Item 16 (on agenda) TSSA President & CEO report – Link to the strategic plan


Item 15 (on agenda) - Issues raised by Council members: a) Corrections for a registered design

“Item 15 BPVAC May 2019

Proposed draft:

Design Revisions/Changes

Design revisions are submitted in accordance with application process (provide link) with a letter describing the design changes.

Post construction design changes: Applicable ASME and CSA codes and standards compliance is required where practical. Refer to variance application (provide link) where compliance is not feasible and equivalent safety can be demonstrated. For assistance contact xxxxxx

Questions posed:

Is the supplier expected to participate in the corrective action?

What happens if there is more than one vessel?”

Item 15- BPVAC May 2019.pdf