Canadian Propane Association | Association canadienne du propane

Regulatory Affairs Committee Meeting

November 25, 2019
1:00 pm to 2:30 pm ET

Conference Call
Dial-in: 1-866-535-0187 / Access Code: 3264190

AGENDA

1.	Welcome and CPA Competition Law Compliance Statement	C. Hillman
2.	Review of the Summary of the October 3rd Meeting	C. Hillman
3.	Cross Country Check-Up	Regional Representatives
4.	Excess Flow Valve Discussion	F. Running
5.	CRN Consortium	R. Keeler
6.	E2 Update	R. Keeler
7.	Other Vaporizers	D. Giasson
8.	Gas Fitters Reconciliation Committee	R. Keeler
9.	Evaluating CG-7 Pressure Relief Device Performance with Respect to Service Life in Excess of the Mandatory 10 Year Replacement Interval	R. Keeler
10.	CSA Technical Committees Updates	Members of CSA Technical Committees
11.	Next Meeting	C. Hillman
12.	Other Business	All

Agenda Item 1:
Welcome and CPA Competition Law Compliance Statement

Attached is the Canadian Propane Association's Competition Law Compliance Statement. All members are encouraged to read the statement prior to the meeting.

Introduction:

Trade associations by their nature facilitate contact and communication between actual and potential competitors. A competition law compliance program plays a crucial role for trade associations because trade associations face unique compliance issues. Given that an association provides a forum where competitors collaborate on association activities, trade associations are exposed to greater risks of anti-competitive conduct. It is therefore critical that trade associations implement credible and effective programs with strict codes of ethics and conduct. Such programs assist trade associations and their members avoid improper actions and protect themselves from being used as a conduit for illegal activities. The Canadian Propane Association (CPA) has a strict policy of adherence to competition law and has adopted a competition law compliance program. This is in the best interest of the association and all of its members, and will allow CPA members to fully benefit from the association's activities while reducing the potential for inadvertent contraventions of the Acts.

All participants are advised that in accordance with the CPA Competition Law Compliance Program:

1) All discussions or conversations among members and others attending CPA meetings, including those that occur during breaks and scheduled or non-scheduled social activities associated with the events, must conform to the CPA Program.

2) Recognizing that the existence of an unlawful agreement or concerted practice may be inferred from circumstances, including the exchange of information by competitors, discussions or disclosures of the following types of information are prohibited, except when such information has otherwise been made public or been approved by counsel:

(a) Individual company fares, rates, charges or surcharges;

(b) Individual company costs;

(c) An individual company's intentions regarding increasing, reducing or reallocating capacity (including entering or exiting markets);

(d) Information on individual company's customers; and

(e) Any other sensitive commercial or proprietary information.

Likewise there shall be no discussion of any agreement between any competitors or potential competitors with respect to any of the forgoing topics. Should you have questions about what can and cannot be discussed, please consult the CPA Staff facilitating the meeting. Those who do not respect these procedures will face sanctions, which may include expulsion from the Association.

Agenda Item 2:
Review of the Summary of the October 3rd Meeting

The attached summary will be reviewed.

Regulatory Affairs Committee

October 3, 2019
11:00 AM ET

Members:
Clint Hillman, Superior Propane (Chair Interim)
Gerald Bartels, Superior Propane
Richard Charbonneau, Budget Propane
Ken Gillis, Superior Propane
Floyd Running, Diversco
Ryan McLachlan, Sleegers
Brent Cohoe, Federated Coop
Dan Giasson, Maxquip
Allan Frail, Superior Propane
Debbie Millington, Superior Propane
Mike Mullins, Superior Propane
Ken Fotty, Superior Propane
Nick Armstrong, McDougall Energy

CPA Staff:
Rebecca Keeler
Marcelline Riddell

SUMMARY

1. **Welcome and CPA Competition Law Compliance Statement Acknowledgement**

   Chair asked if there was a need to read the Statement. No need expressed, therefore statement accepted. Meeting commenced at 11:03 am ET. Note added the CSA Committee Updates as Item 10 to the agenda.

2. **Chair of the Regulatory Affairs Committee**

   Russel will no longer be chairing the Regulatory Affairs Committee. We would like to take this opportunity to thank Russel for his leadership and commitment to the advancement of the propane industry over the years and wish him all the best in his retirement.

   Rebecca Keeler noted there is a need for a new Committee Chair and a call for nominations is will be made shortly. Members asked to contact Rebecca if interested.

3. **June 27, 2019 Meeting Summary Review**

   The draft summary of the committee meeting held on June 27, 2019 was reviewed, some corrections were made to names of attendants; with no other amendments the summary was approved.
   Moved: Richard Charbonneau

Seconded: Floyd Running

4. Cross Country Check-Up

Regional Representatives / Regional Directors will be invited to provide short updates.

- Atlantic – Allan Friel advised that New Brunswick is revising pressure vessels regulations with a goal of harmonizing these regulations among all four Atlantic provinces.
- Quebec - Richard Charbonneau, Budget Propane – Issue of implementing RSMPs in Quebec as of November 2019 is ongoing. Almost 100 sites with tanks over 5,000 gallons will need to provide new form by this date.
- Ontario – Ryan McLachlan, Sleegers - provided an update on the PAC meeting of TSSA in late Sept. 2019. He identified the issue of sensitive receptors as having made progress with the TSSA recently. He also advised that the TSSA informed the meeting that they are proceeding with an idea industry has been advancing for years; an RSMP for all fuels the TSSA regulates.
- Manitoba – Brent Cohoe, Federated Cooperatives Limited - no update.
- Saskatchewan – Ken informed the group that the last CPA meeting in the province was attended by a Saskatchewan Power representative who told attendees the company is looking into excess flow issues especially for grain dryers. Floyd Running indicated this is really an issue of pressure drop limits, is applicable in all jurisdictions and therefore important to keep apprised of. Brent Cohoe added that the OSC has a few grain dryers that have been field tested by one particular inspector. Members asked the CPA to consider a response to this practice. Rebecca will follow up with Darren to be discussed at the Manitoba meeting.
- Alberta – Dan Giasson, Maxquip – no update.
- British Columbia – Clint Hillman, Superior Propane told the group of recent organizational changes in the regulator have resulted in safety officers being responsible for either fuels or elevating devices. Prior to this change, the province had a safety manager mange for each technology. Ryan McLaughlin, Sleegers, raised the recent practice of some cities in BC now requiring dispensaries to be located underground, specifically required by the fire chief in the area. This may be related to the draft Directive that TSBC released that is currently on hold. Darren Cunningham submitted a comprehensive response to BC's proposed Directive.

5. CRN Consortium

ISSUE: The complexities of the CRN process have a detrimental effect on industry and consumers alike and act as an impediment to innovation and the availability of safer and more efficient products in the Canadian marketplace.

EXPECTED OUTCOMES: Simplification of the CRN process

BACKGROUND: The CRN Cross Industry Consortium presents a unified voice of industry sectors affected by the CRN process, specifically, sectors that are involved in the manufacture, distribution and application of pressurized equipment. The Consortium seeks outcomes that will lead to the simplification of the CRN process and as a result will encourage innovation, increase economic activity and ultimately serve Canadian consumers with safer, more efficient and environmentally friendly products.

ACTIVITIES: In July 2017, the Canadian Registration Number (CRN) Industry Consortium (a group comprised of the CPA and 12 other industry members) published a white paper on the current CRN system identifying the registration process as an inter-provincial and cross-border trade barrier. The group recommended improvements to the process to facilitate the trade of pressure equipment through the mutual recognition of jurisdictions' regulatory requirements and administrative processes related to the issuance of a CRN.
At a recent Standards Council of Canada meeting in 2019, the mutual recognition proposal was endorsed by all jurisdictions except Alberta. However, the agreement will not come into effect until the provinces sign the agreement, which should be completed by mid-May 2019. The agreement as well as the full details of the harmonized CRN system was posted on the Standards Council of Canada website at the end of May. Note the expected timeline of the posted agreement has been updated for the fall of 2019.
Manitoba signed the agreement, and as of June 2019, is accepting mutual recognition of CRN design reviews.
In August, Minister of Government and Consumer Services Lisa Thompson notified the CPA that Ontario has signed the agreement.

NEXT STEPS: The CPA will continue to participate and inform members of new developments. The CPA will work with all provincial governments/authorities to ensure ministerial agreement.

Member Comments: Ryan McLaughlin, Sleegers, believes some provinces are waiting to sign based on implementation plans and schedules which are as yet unknown. The date targeted for implementation is sometime in 2020. He also stressed this will help will promote new technologies in Canada.

6. Direct Fired Vaporizers

ISSUE: In August, the only Canadian certification document (ULC/ORD C1349) for direct-fired vaporizers was set to expire and be withdrawn.

EXPECTED OUTCOME: Ensure authorities having jurisdiction accept UL listed vaporizers

BACKGROUND: The CSA ORD which was established and implemented in 2013 was set to expire and be withdrawn in August 2018.This would have prevented vaporizer manufacturers from applying the UL mark to their product and thus potentially preventing the use of direct fired vaporizers that have been used for generations in Canada. In 2013, ULC/ORD C1349 (Guide for the investigation of LP-GAS Vaporizers) was issued. This was the first instance of a document which was used by the approval agencies to test and certify vaporizer products for the Canadian market. In addition to

compliance with this standard, current direct-fired vaporizers comply with the USA version of the standard, UL 1349.
In July 2018, the UL ORD was resurrected for another 5-year period until 2023.
Any outstanding issues with industry, standards and AHJ's surrounding the requirement to vent relief valves away for a source of ignition in both the CSA B149.1 and ULC1349-ORD is still being addressed by the CSA B149 committee, according to an update provided by Floyd Running at the CPA's March 7, 2019 Regulatory Affairs Meeting.

ACTIVITIES: The CPA had discussions with Kirsten Bellar (Algas-SDI International), Floyd Running (Diversco), and Richard Charbonneau (Budget Propane and Chair of CSA B149.2). A docket proposing that the US version of the standard, UL 1349, and the UL marking on the vaporizers be adopted for use in the Canadian market was submitted to the CSA B149.2 Technical Committee by Algas-SDI International.

In September 2019 the docket was accepted by the CSA B149.2 committee. The below new clause will be added to the 2020 edition.

NOTE THIS IS CONFIDENTIAL INFO UNTIL THE CODE IS RELEASED

CSA B149.2-20 - 9.1.10
An emergency shutdown system shall be installed in any tank system supplying propane to a direct-fired vaporizer. The emergency shutdown system may be of the electrical, pneumatic, or mechanical type or a combination thereof and the means to activate the emergency shutdown system shall be located at least 25 ft (7.6 m) from the direct-fired vaporizer/s. The emergency shutdown system when activated shall initiate shut-off of the liquid line at the tank location that is connected to the vaporizer.

NEXT STEP: No further action required for direct fired vaporizers. Discussion/committee to be formed to discuss other vaporizers.

Member Comments: Richard, the next code cycle we have accepted the UL and ULC/ORD. Continue our relationships with the provinces to make sure they adopt it.

7. Regulatory Harmonization and Red Tape Reduction Survey

Great feedback from members across Canada, including provincial and federal regulatory feedback. Thank you to all for taking the survey. The CPA will be working on prioritizing the issues and working with members to move them forward.

- General Feedback:
    - Clarity of federal, provincial and municipal jurisdiction to reduce overlap of regulations.
    - Suggestion that the CPA Regulatory Team reach out to individual companies to understand regulatory issues. This would allow for consultation beyond the committee meetings.
    - Standardization of federal and provincial rail regulations.

- Process of adoption for new technology to allow for quick adoption in the Canadian market.
- Equality between natural gas and propane regulations.
- Renewable propane and its prospects in Canada
- CPA and industry needs to be more involved in providing member feedback in the development of codes and standards
- Restrictions in the autopropane regulatory environment

- Province specific feedback:
  - TSSA Overlap of RSMP requirements and federal E2 Regulations
  - Administrative burden associated with the TSSA
  - Newfoundland requires a verifier (typically a government inspector) to inspect installations where public gatherings take place prior to activating the system. Large cost and amount of time for this process.
  - Financial burden of the "S" stamp for propane vessels in Saskatchewan.

Member comments: Ryan mentioned it would be good to have a forum for more discussions. Agreement from other members.

8. Gas Fitters Reconciliation Committee

ISSUE: All provinces manage gas fitters as a trade differently, resulting in mobility issues from province to province and lack of people entering the trade.

EXPECTED OUTCOMES: Harmonize gas fitter's regulations to decrease labor shortage.

BACKGROUND: The Standards Council of Canada's Provincial-Territorial Advisory Committee (PTAC) has been tasked by the Canadian Free Trade Agreement's Regulatory Reconciliation and Cooperation Table (RCT) with developing a reconciliation agreement on gasfitter licensing. The CPA is contributing to the committee to provide input from members on the different regional issues.

ACTIVITIES: In July of 2019, the CPA met with the PTAC advisor to discuss the goals and objectives. Regional Directors have reached out to members to provide input on regional based issues with gas fitters programs and licensing.
In late August 2019, the CPA provided member feedback to this committee.

NEXT STEPS: The CPA will continue engage with members to make sure the issues are on the agenda of the committee and are being addressed.

Members feedback: Meeting set for early December and asked members interested in attending to advise RK.

9. Evaluating CG-7 Pressure Relief Device Performance with Respect to Service Life in Excess of the Mandatory 10 Year Replacement Interval

ISSUE: The 10-year replacement interval required for 420 Ib cylinders has resulted in an increase of dangerous goods being transported on the road and increased the cost of propane.

EXPECTED OUTCOME: Increase the replacement interval to 25 years for the PRV, while still maintaining the integrity of the cylinders.

BACKGOUND: The Transportation of Dangerous Goods Regulations (TDGR) adopts the CSA Standard B340: Selection and use of cylinders, spheres, tubes, and other containers for the transportation of dangerous goods Class 2. The code requires that the CGA S-1.1 (or S7): Pressure Relief Valve Device Standards is followed, which requires the 10-year replacement interval.

ACTIVITIES: Batelle was contacted by Budget Propane in 2018 to provide a proposal for a study on PRVs for the 420 Ib cylinders. They created a detailed white paper outlining their test capabilities. The research idea was proposed to Transport Canada during the Transportation of Dangerous Goods Research Symposium in February 2019. The idea was well received from Transport Canada.
At the May 2019 Board Meeting, it was proposed to move $200,000 into a regulatory fund. This was accepted, and it was discussed using a portion of this money to perform the PRV study.
July 2019, a callout went to members for those interested in joining a committee to discuss the next steps on the study. The committee met in July and August to determine the scope of the study and the proposed funding. The CPA has reached out to multiple consultants and is refining the scope of the study.

FUNDING PROPOSAL TO THE BOARD: Estimated cost of the study: $300,000 USD. The committee is requesting half of the cost of the study up to $150,000 from the Regulatory Fund.
CPA management is proposing the following:
1. Request a PRV study contribution from members during the membership renewal process – ask for a specific contribution – which would then be included in the invoice sent to members agreeing to make such a contribution. If the members commit to the funding, the following next steps are envisioned by members.

NEXT STEPS:
- Board review and comment on the funding, move forward for the membership cycle in November
- Form a technical review team to select a consultant and further refine the study
- Create a detailed proposal for the study method and present it to Transport Canada with the help of the consultant
- Perform the study aim for early 2020
- Submit a docket to the CSA B340 committee
- Lobby Transport Canada for this change

Member Comments: CSA B51, internal pressure relief device. CGA amendment. B149.2 clause amendment. Ryan, range of valves, went previously with the exemption. Reach out to the USA. With past discussions.

Richard Charbonneau, Budget Propane, believes they are focused more on internal devices not external devices. He suggested the group needs to do work like did the did with the B51 issue and investigate options.

Rebecca Keeler said the plan is emulate the US approach by seeking an exemption in the code. Members asked if the CPA had any US outreach plans in place and Rebecca indicated that it is on her list of action items.

A question was raised on how we would get the older valves, and it was answered that we shouldn't have an issue getting older valves.

10. CSA Technical Committee Updates

***note addition to the agenda**

Richard Charbonneau provided an update on the timing of a new CSA publication expected in 2020. No update for the B129 series.

Ryan Mclaughlin updated the group on B51 work. The group met in August 2019 and are digitizing the standard. It will be interactive and have an app for access. Signals a move to a new age standard, moving to digital access and away from books.

339 – Floyd noted there was nothing more to report on this.

11. Next Meeting

Proposed Date November 25, 2019, 1:00 pm EST

Chair suggested moving time from an hour to 1.5 hours. No objections voiced. Expressed preference to calendar invitation with meeting materials attached for ease of use. Rebecca Keeler agreed to provide for next meeting.

*November 28 had originally been selected by members but has since been modified due to a scheduling conflict.

12. Other Business

No other business

13. Adjournment

12:08 pm ET

Agenda Item 3:
Cross Country Check-Up

Regional Representatives / Regional Directors will be invited to provide short updates.

- Atlantic – Chris Snow, Eastern Gas Services
- Quebec - Richard Charbonneau, Budget Propane
- Ontario – TBD
- Manitoba – Brent Cohoe, Federated Cooperatives Limited
- Saskatchewan – Kevin Mckeown, Federated Cooperatives Limited
- Alberta – Dan Giasson, Maxquip
- British Columbia – Clint Hillman, Superior

Agenda Item 4:
Excess Flow Valve Discussion

Review Attachment 4.1. Discussion to determine the next steps.

Excess Flow Valve

Discussion Paper

Assembled By:

Floyd Running

10/31/2019

An explanation of how LPG excess flow valves work and elements of compliance with the CSA B149.2 Standard.

Excess Flow Valves

One of the misunderstandings or mysteries in the industry is how Excess Flow Valves work. How they are designed, UL tested, and how they "check" at a specific flow rating. This requirement was born out of a desire to *"protect against excessive flow when breakage of pipe lines or hose rupture takes place"* and relate the ratings to measurement characteristic commonly used in industry operations, specifically flow in GPM. *"When referring to breakage or rupture, a clean and complete separation shall be assumed."*

The definitions section in the CSA B149.2 standard demonstrates that the authors had an understanding that the device did not measure flow, but rather worked on a differential pressure trigger when they outlined the intent by stating; "*to close when the liquid or vapour passing through it exceeds a prescribed flow rate as determined by a pressure drop across the valve".*

It is important to understand the construction and operation of a UL listed Excess Flow Valve with a CRN in order to be able to relate it to the B149.2 requirements. They do not measure the flow volume of either the liquid or vapor, they simply respond to a differential pressure drop across the valve disc utilizing a spring as the trigger and muscle. Flow is not the deciding factor in the activation of the excess flow check valve, it is strictly the differential pressure between the upstream side of the valve (disc) and the downstream. Flow and line size are only relevant to be able to provide pressure drop data related to the back pressure created with velocity, viscosity, volume and dimensions.

The volume rating is not accurate because *a)* an excess flow valve is a mechanical spring (*pressure*) device, *b)* temperatures are constantly changing ambient conditions from very cold to very warm, *c)* system pressures *(both tank pressure and PSID)* are constantly changing as a result of the ambient conditions as well as product vaporization pressures *(from filling the vacated space left when evacuating/pumping out of a container)*, and *d)* it does not measure flow at all and it has no idea how many GPM are flowing past the valve.

Construction:

An excess flow valve is a spring-loaded check valve which will close only when the flow of fluid through the valve generates sufficient force to overcome the power of the spring holding it open. Excess flow

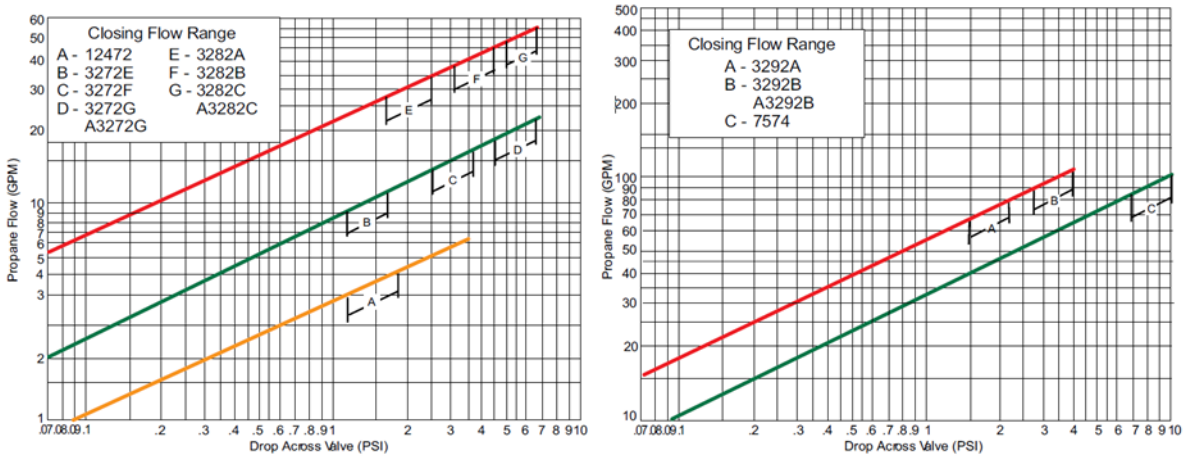
valves permit the flow of liquid or vapor in either direction. This flow is controlled in only one direction. The valve disc is held in the open position by a spring.

Operation:

When the flow creates a pressure drop across the valve disc that overcomes the pre-determined load on the spring, the valve disc moves to the closed position, checking the flow in one direction only. It remains closed until the force on both sides of the valve disc are approximately equal (a small bleed hole in the disc of each valve permits equalization), then the spring automatically reopens the valve. When a line is completely broken, the pressure cannot equalize and the excess flow valve remains closed until the line is repaired. Because the bleed hole in each valve disc permits equalization of pressure, excess flow valves do not provide a 100 percent type shut-off.

NFPA 58 states that the activation of the check valve cannot be any higher than 15psid. The UL 125 Standard *(Standard for Flow Control Valves for Anhydrous Ammonia and LP-Gas)* verifies compliance with that intent.

Performance



Ordering Information

NOTE: Multiply flow rate by .94 to determine liquid butane flow and by .90 to determine liquid anhydrous ammonia flow.

Part Number	Brass or Steel	A Inlet Connection (M. NPT)	B Outlet Connection (F. NPT)	C Wrench Hex Flats	D Effective Length (Approx.)	Approximate Closing Flow*		
						Liquid (GPM Propane)	Vapor SCFH (Propane) 25 PSIG Inlet	Vapor SCFH (Propane) 100 PSIG Inlet
12472	Brass	¾"	¾"	1⅜"	1⁷⁄₁₆"	4	1,050	1,700
3272E					1⁵⁄₁₆"	10	2,100	3,700
3272F						15	2,800	5,000
3272G						20	3,700	6,900
A3272G	Steel				1⅜"			
3282A	Brass	1¼"	1¼"	2"	1⁷⁄₁₆"	30	5,850	10,000
3282B						40	7,600	13,600
3282C						50	9,000	16,300
A3282C	Steel				1⅝"			
7574	Brass	1½"	1½"	2¼"	1⅞"	90	15,200	28,100
7574L						70	14,000	25,000
3292A		2"	2"	2⅞"	2"	75	14,200	24,800
A3292A	Steel			3"				
3292B	Brass			2⅞"		100	18,100	32,700
A3292B	Steel			3"				
A3292C						122	22,100	37,600

* Based on horizontal installation of excess flow valve. Flows are slightly more when valves are installed with outlet up; slightly less when installed with outlet down.

The table and chart above show the relevant data for the excess flow valve used in dispenser applications. The 3272G orA3272G is rated at 20USGPM in the table and the closing pressure range is demonstrated in as area "D" on the green line on the left had chart above. The same excess valve can have multiple spring configurations in order to operate at different flow ratings for different size hose and applications. As is shown in the charts above, this is accomplished utilizing spring tension.
Caution that the availability of UL listed, CRN excess flow valve configuration are limited to about 60 variations from POL/QCC1 to 4", from .8GPM to 800GPM. Currently there is no approved ½" excess flow valve available and no need to design or approve one since the application is appropriately covered by the ¾" excess flow check valve.

Notes related to CSA B149.2:

The definitions section provides a description of intended purpose, or provides clarity to the item listed.

> **Excess-flow valve** — a valve designed to close when the liquid or vapour passing through it exceeds a prescribed flow rate as determined by a pressure drop across the valve.

The clause is intended to be the enforceable requirements of the standard.

> **7.4.8** Any line utilized for product flow shall have a flow capacity greater than the rated flow of the excess-flow valve protecting the line.

The Annex at the end of the standard is intended to provide guidance and is not part of the standard body itself.

> **ANNEX** J.3 Proper use of excess-flow valves
>
> *The primary purpose of an excess-flow valve shall be to protect against excessive flow when breakage of pipe lines or hose rupture takes place. When referring to breakage or rupture, a clean and complete separation shall be assumed. It is obvious that if the damage is only a crack or if the piping is crushed at the point of failure, the escaping flow will be restricted and sometimes it cannot pass sufficient vapour or liquid to cause the excess-flow valve to close.*
>
> *An excess-flow valve, while in its normal open position, shall permit the flow of liquid or gas in either direction. Flow shall be controlled in one direction only. Each excess-flow valve shall be stamped with an arrow showing the direction in which the flow is controlled. If the flow in that direction exceeds a predetermined rate, the valve automatically closes. Manufacturers' catalogues show the closing flow rating both in terms of liquid and vapour.*
>
> *Since excess-flow valves depend on flow for closure, the line leading away from the excess-flow valve should be large enough to ensure that it will not excessively restrict the flow. If the pipe run is unusually long or restricted by numerous elbows, tees, or other fittings, consideration should be given to the use of large pipe and fittings. A pipe size smaller than that of the excess-flow valve shall never be used.*
>
> *It is considered good practice to select an excess-flow valve with a rated closing flow approximately 50% greater than the anticipated normal flow. This is important because valves that have a closing flow very close to the normal flow can chatter or slug closed when surges in the line occur either during normal operation or due to the rapid opening of a control valve.*

Simple application for reference:
If upstream pressure is based on tank pressure plus pump outlet pressure, and downstream pressure is based on the backpressure from the system. If you have more than >30psig upstream pressure and the downstream backpressure is <15psig all LPG UL listed check valves have to close to meet the requirements of NFPA 58 and UL 125.

Application:

- 1000 USWG Dispenser cylinder fill application (*size of the dispenser does not matter*)
- Pump to fill cylinders has a bypass set at the minimum of 50 PSID
- ¾" excess flow check valve with a 20GPM catalog designation closing flow. (*activation spring setting 4.5 to 5.8psid*)
- Connected to a ½" cylinder fill hose 10' in OL

  Assuming flow of 20GPM *(the desired flow rate to make sure the excess flow valve activates)*, the pressure drop through a ½" Type 1 hose assembly 10' in length = approximately 10-12psig

Event:
A breakage or rupture to the hose at the fill end of the hose occurs, and it is a clean and complete separation as described by the definitions in CSA B149.2. What are the relevant factors that cause activation of the excess flow check valve? All that matters is that the valve (disc) sees a PSID of more than 4.5 to 5.8 psid. That means the upstream pressure must be 4.5 to 5.8psig higher than the downstream pressure drop. If the downstream pressure drop is 10psig the upstream pressure would have to be greater than 14.5 to 17.8psig. The result is full activation of the excess flow check valve. The hose diameter is not a limiting factor.

Upstream

- ✓ Temperature / pressure correlation -30^{O} C = 13 psig tank pressure
- ✓ Pump bypass pressure = minimum 50 psid
- ✓ Combined upstream pressure = **63** psid total

Downstream (back) pressure
A clean and complete separation at the end of a 10' hose, ½' in diameter will provide approximately 10-12 psig.

Conclusions:

1. A single line in the middle of ANNEX J.3, that does not appear in any other North American standards or manufactures source materials that has been added to the ANNEX and has created a controversy. That line reads "A pipe size smaller than that of the excess-flow valve shall never be used" and does not appear in the body of the standard or the definition. That line alone is problematic for inspectors and the industry affecting many applications from commercial and industrial applications to trucks, dispensers to plants.

2. This line should be deleted from the informative section of the CSA B149.2 standard because it has implications in many piping systems at plants where 3" or 4" flanged ISC's are used at the tank and piping downstream has had to be reduced for other compliance reasons (ie maximum approved hose sizes, etc).
3. In the Index of CSA B149 standards the ANNEX section is listed as ***"informative"*** and serves as a guide only. They are not necessarily intended/expected to be used as enforcement tools. In fact in past instances where the ANNEX has contradicted the body of the standard, AHJ's have articulated the "informative" nature of the ANNEX. *(piping sizing charts vs pressure loss permissible)*

4. Caution to those expecting a specific size and rating for excess flow valves that the availability of UL listed, CRN excess flow valve configurations are limited to about 60+ variations from POL/QCC1 to 6" flanged, from .8 GPM to 1000 GPM. Currently no dispenser ½" excess flow check valve has been designed or approved since the application is well covered by the ¾" excess flow check valve.
5. A ½' type 1 hose is suitable for a dispenser application with a ¾" excess flow valve with a closing spring activation pressure of less than 15psid. When tank pressure is above 15psig, tank pressure alone will close the excess flow if the hose is severed. Dispenser applications include a pump which boosts the inlet pressure prior to the excess flow at least another 50psig ensuring closure no matter what the tank pressure is.
6. Installations should comply with the definition and clauses regarding excess flow check valves, and, ANNEX J.3 in large is a valuable guide, the single line that states *"A pipe size smaller than that of the excess-flow valve shall never be used"* should not be used to evaluate any installation.
7. CSA B149.2 committee should be notified of the impact the conflict has on industry applications and a docket to remove the line.

Reference Material:

- CSAb149.2-15
- RegO L102 Catalog
- NFPA 58
- UL125

Agenda Item 5:
CRN Consortium

ISSUE: The complexities of the CRN create barriers for new technologies and companies entering Canada.

EXPECTED OUTCOMES: Simplification of the CRN process

BACKGROUND: The Consortium seeks outcomes that will lead to the simplification of the CRN process and as a result will encourage innovation, increase economic activity and ultimately serve Canadian consumers with safer, more efficient and environmentally friendly products.

ACTIVITIES: In July 2017, the Canadian Registration Number (CRN) Industry Consortium (a group comprised of the CPA and 12 other industry members) published a white paper on the current CRN system identifying the registration process as an inter-provincial and cross-border trade barrier. The group recommended improvements to the process to facilitate the trade of pressure equipment through the mutual recognition of jurisdictions' regulatory requirements and administrative processes related to the issuance of a CRN.

Manitoba signed the agreement, and as of June 2019, is accepting mutual recognition of CRN design reviews.

In August, Minister of Government and Consumer Services Lisa Thompson notified the CPA that Ontario has signed the agreement.

UPDATE: Alberta still has not signed the agreement. The CPA sent a letter to the Minister of Red Tape Reduction, Honorable Grant Hunter, and the Minister of Municipal Affairs, Honorable Kaycee Madu advocating for the benefits of the CRN process updates.

NEXT STEPS: The CPA will continue to participate and inform members of new developments. The CPA will work with all provincial governments/authorities to ensure ministerial agreement.

Agenda Item 6:
E2 Update

ISSUE: The requirements of the E2 regulations put undue administrative burden on propane suppliers and users of propane.

EXPECTED OUTCOME: Amendments or exemptions to the E2 Regulations to reduce the burden of the regulations.

BACKGROUND: Members expressed concerns with the updated 2019 E2 Regulations. The CPA pursued legal review on the validity of the Regulation under ECCC's mandate. Based on the legal review, the courts have recognized that the federal government does have jurisdiction with respect to hazardous substances. Thus, a challenge to the constitutional validity of the E2 Regulations would be time-consuming, costly, and without the certainty of success.

The CPA will now seek to effectively re-open the discussion of the amended regulation with respect to, for example, the applicable container size and the requirement for simulation exercises.

ACTIVITIES: The CPA has developed a plan to discuss the regulations with ECCC with input from members. We have the following topics for discussion.

1. **E2 Regulatory Working Group:** We suggest starting an E2 working group with industry involvement to work on regulatory modernization. This is similar to how Transport Canada approaches their regulations.
2. **Clarification on the regulations:** The CPA is seeking clarity on the definition of a container system, specifically the ability to exclude volumes of container systems that have shutoff valves that are automatically or remotely segregated from the network. We are also seeking clarity on public involvement in remote locations with only volunteer fire departments.
3. **Unintended consequences of the regulations:** The CPA would like to inform ECCC of the broad scope of the Regulation, in terms of impacting farmers, golf courses, schools, municipal buildings and residential homes. There is the potential to change the definition of a container system or increasing the volume to align more with the EPA, which only requires distribution and storage facilities to follow their regulations.

NEXT STEP: Meet with ECCC at the end of November and continue to advocate for change.

Agenda Item 7:
Vaporizers

ISSUE: Dan Giasson to give background on the issue.

NEXT STEPS: Form a working group to determine the next steps.

Agenda Item 8:
Gas Fitters Reconciliation Committee

ISSUE: All provinces manage gas fitters as a trade differently, resulting in mobility issues from province to province and lack of people entering the trade.

EXPECTED OUTCOMES: Harmonize gas fitter's regulations to decrease labor shortage.

BACKGROUND: The Standards Council of Canada's Provincial-Territorial Advisory Committee (PTAC) has been tasked by the Canadian Free Trade Agreement's Regulatory Reconciliation and Cooperation Table (RCT) with developing a reconciliation agreement on gasfitter licensing. The CPA is contributing to the committee to provide input from members on the different regional issues.

ACTIVITIES: In July of 2019, the CPA met with the PTAC advisor to discuss the goals and objectives. Regional Directors have reached out to members to provide input on regional based issues with gas fitters programs and licensing.
In late August 2019, the CPA provided member feedback to this committee.

NEXT STEPS: The CPA will continue engage with members to make sure the issues are on the agenda of the committee and are being addressed.

Update: The CPA and members are attending an industry engagement meeting on December 3rd to discuss the issues in the Gas Fitters trade. Any feedback from members regarding the restrictions of gas fitters in the propane industry can be sent to Rebecca Keeler at rebeccakeeler@propane.ca.

Agenda Item 9:
Evaluating CG-7 Pressure Relief Device Performance with Respect to Service Life in Excess of the Mandatory 10 Year Replacement Interval

ISSUE: The 10-year replacement interval required for 420 Ib cylinders has resulted in an increase of dangerous goods being transported on the road and increased the cost of propane.

EXPECTED OUTCOME: Increase the replacement interval to 25 years for the PRV, while still maintaining the integrity of the cylinders.

BACKGOUND: The Transportation of Dangerous Goods Regulations (TDGR) adopts the CSA Standard B340: Selection and use of cylinders, spheres, tubes, and other containers for the transportation of dangerous goods Class 2. The code requires that the CGA S-1.1 (or S7): Pressure Relief Valve Device Standards is followed, which requires the 10-year replacement interval.

ACTIVITIES: Batelle was contacted by Budget Propane in 2018 to provide a proposal for a study on PRVs for the 420 Ib cylinders. They created a detailed white paper outlining their test capabilities. The research idea was proposed to Transport Canada during the Transportation of Dangerous Goods Research Symposium in February 2019. The idea was well received from Transport Canada. At the May 2019 Board Meeting, it was proposed to move $200,000 into a regulatory fund. This was accepted, and it was discussed using a portion of this money to perform the PRV study.
July 2019, a callout went to members for those interested in joining a committee to discuss the next steps on the study. The committee met in July and August to determine the scope of the study and the proposed funding. The CPA has reached out to multiple consultants and is refining the scope of the study.

FUNDING PROPOSAL TO THE BOARD: Estimated cost of the study: $300,000 USD. The committee is requesting half of the cost of the study up to $150,000 from the Regulatory Fund.
CPA management is proposing the following:
1. Request a PRV study contribution from members during the membership renewal process – ask for a specific contribution – which would then be included in the invoice sent to members agreeing to make such a contribution. If the members commit to the funding, the following next steps are envisioned by members. *Update the board accepted the proposal and letters for funding have been sent out to members.

NEXT STEPS:

- Technical team to meet with Battelle to discuss the proposal
- Create a detailed proposal for the study method and present it to Transport Canada with the help of the consultant
- Perform the study aim for early 2020
- Submit a docket to the CSA B340 committee
- Lobby Transport Canada for this change

Agenda Item 10:
CSA Technical Committee Updates

Agenda Item 11:
Next Meeting

Proposed Date Tuesday March 10, 2019, 1:00 pm EST

Agenda Item 12:
Other Business