

Boilers and Pressure Vessels Regulatory Review

Round Table Panel Final Report

August 2016

Prepared by Deloitte Inc. on behalf of the Boilers and Pressure
Vessels Round Table Panel

Note to Reader

This report presents the advice of the Boilers and Pressure Vessels (BPV) Round Table Panel to the Ministry of Government and Consumer Services on its review of the *Boilers and Pressure Vessels Regulation*.

It is organized into three sections: Background, Panel Consensus and Discussion, and Conclusion.

The Background section provides a summary of the BPV safety regulatory framework in Ontario.

The Panel Consensus and Discussion section is the heart of this report. It articulates the panel's consensus position on the five key issues that the Ministry of Government and Consumer Services was seeking to address.

The Conclusion section of the report details the panel's advice on how to complete development of the new regulatory framework and effectively implement and operate that framework.

Three appendixes are included that provide more detail on how the round table panel worked.

Transmittal Letter

In February 2016, the Ministry of Government and Consumer Services (MGCS), in collaboration with the Technical Standards and Safety Authority (TSSA), asked us to participate in a volunteer round table panel of stakeholders to provide advice regarding potential amendments to the Boilers and Pressure Vessels (BPV) Regulation (O. Reg. 220/01).

We met on five occasions from February – April 2016 to discuss the regulation of boiler and pressure vessel periodic inspections. Our priority was to provide the government with regulatory and operational advice promoting public safety. Government also asked us to consider how to minimize the regulatory burden imposed on industry and to enable TSSA's BPV Safety Program to become financially sustainable.

While we represent a variety of organizations involved in the safety of BPVs – insurers, manufacturers, authorized inspection agencies and owners – our work was done in the public interest. Our work began by reviewing a regulatory proposal drafted by MGCS in consultation with TSSA. During the course of our discussions we identified a number of concerns with the regulatory proposal, and have proposed an alternative approach to meeting the government's objectives related to safety, regulatory burden and financial sustainability.

We did not agree on everything. However, by the end of the panel process we were able to reach consensus on a number of critical aspects of the regulation. We have also provided advice to TSSA on how to implement and operate the new regulatory framework that we have recommended.

There is more work to be done. Government and TSSA need to engage in further business planning and analysis to refine and complete aspects of the model of that we have proposed. We also wish to note that there are many important issues related to BPV safety that were outside the scope of the panel process. These issues included the role of third-party inspection agencies (who today must work on behalf of an insurer), integration of TSSA's Operating Engineers and BPV Safety Programs, shop and repair / alteration inspections and harmonization of regulation across Canadian provinces. We would encourage MGCS to continue to engage us and other stakeholders as it modernizes and implements the regulation.

Those caveats aside, we would like to thank MGCS for giving us the opportunity to provide advice, and would like to thank Deloitte for their role in facilitating our work and articulating our views in this report.

This report reflects our discussions. In addition to laying out the panel's consensus, we also present the issues where panel members had differing

views. In illustrating this range of perspectives, we hope to encourage further discussions, not only within government but also with other interested parties. With that in mind, the panel encourages the government to release this report in support of further public consultations.

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Executive Summary

In Ontario, the regulatory oversight of boilers and pressure vessels (BPVs) is addressed through the *Boilers and Pressure Vessels Regulation* (O. Reg. 220/01) and the *Operating Engineers Regulation* (O. Reg. 219/01). The Technical Standards and Safety Authority (TSSA) enforces the regulations through its Safety Programs. The scope of this regulatory review was limited to the *Boilers and Pressure Vessels Regulation*.

While the safety record for BPVs in Ontario is strong, there are long-standing challenges associated with operations of the BPV Safety Program:

- Non-compliance with regard to TSSA’s issuance of BPV authorizations (Certificates of Inspection);
- Confusion regarding regulatory requirements for the inspection of piping and fittings;
- Data challenges impacting TSSA’s ability to conduct safety analysis;
- Limitations in the oversight of periodic inspections; and
- A structural financial deficit in the BPV Safety Program.

The Ministry of Government and Consumer Services (MGCS) sought to resolve these challenges by consulting industry stakeholders on potential amendments to the *Boilers and Pressure Vessels Regulation*. The appendices to this report provide further detail on the consultation process, including constraints related to scope and data availability.

The panel reviewed and discussed these challenges over the course of five round table meetings in early 2016. By the conclusion of the round table meetings, the panel had developed, with important caveats, a series of consensus positions on how best to address the five key challenges.

Table 1: Summary of Panel Consensus Positions

Challenge	Panel’s Consensus Position (Summary)
Non-compliance with regard to TSSA’s issuance of BPV authorizations (Certificates of Inspection)	TSSA should issue Certificates of Inspection directly to owners and maintain sole authority to make orders and shut down devices
Confusion regarding regulatory requirements for the inspection of piping and fittings	Regulations for periodic inspection should differentiate between high-risk and low-risk piping and fittings based on research and analysis conducted through a standards development organization (SDO). The panel developed two options for how and when to update the regulation to reflect the differentiation.

Challenge	Panel's Consensus Position (Summary)
Data challenges impacting TSSA's ability to conduct safety analysis	TSSA should maintain a database with the periodic inspection data that it needs to conduct safety analysis; insurers should provide this data to TSSA in a standardized format (to be determined by TSSA) after each periodic inspection
Limitations in the oversight of periodic inspections conducted by insurers	An attestation and audit program should be established to provide oversight of insurers' practices ¹ regarding Ontario's specific (i.e., jurisdictional) requirements for periodic inspections
A structural deficit in the BPV Safety Program	Owners should pay a fee to TSSA in order to receive their Certificate(s) of Inspection

This report describes the challenges that MGCS and TSSA sought the panel's advice on. In addition to providing the panel consensus positions on how to address those challenges, the report includes a summary of the round table discussion. Last, the report includes the panel's recommendations for effective implementation of a new regulatory framework.

¹ Third-party inspection agencies also play an important role in the inspection of BPVs. Under the Regulation they must perform those inspections on behalf an insurer. Oversight requirements for insurers would include their use of third-party inspection agencies.

1. Background

1.1 Background: boiler and pressure vessel regulation in Ontario

The regulatory oversight of boilers and pressure vessels (BPVs) is addressed through the *Boilers and Pressure Vessels Regulation* (O. Reg. 220/01) and the *Operating Engineers Regulation* (O. Reg. 219/01), both of which are made under the *Technical Standards and Safety Act* (Act). Prior to the introduction of the Act in 2000, the regulation of BPVs was addressed through the *Boilers and Pressure Vessels Act, 1990*.

The *Boilers and Pressure Vessels Regulation* (O. Reg. 220/01), which is the focus of this regulatory review, governs elements of the full lifecycle of BPV safety including design, manufacturing, installation, operation, maintenance, and decommissioning. Propane vessels covered under the CSA B149 series of codes are exempted from the Regulation. Further detail, including essential requirements and minimum standards, is captured under the code adoption document (CAD). The Technical Standards and Safety Authority (TSSA) is an arms-length, not-for-profit, industry-funded regulatory authority that is responsible for administering the Regulations and CAD.

Boilers and pressure vessels are equipment that produce and distribute hot water, steam, compressed air, liquids, and gases. They are used in a wide-variety of industries in Ontario, including power generation, manufacturing, agri-food, forestry, and dry cleaning.

1.2 The BPV Safety Program

TSSA enforces the regulation and CAD through its BPV Safety Program. BPVs in Ontario have a strong safety record. Incidents related to this type of equipment are infrequent: no fatalities have been recently reported in many years, and there have been two serious injuries since 2008.²

The current state of safety results from a robust regulatory regime, which includes periodic inspections (most of which are conducted by insurers³), as well as the manufacturing and installation inspections conducted by TSSA.

However, there are long-standing operational challenges associated with the BPV Regulation, which is why the government is seeking feedback on amending the current regulatory framework:

² TSSA 2014/15 Annual Safety Performance Report

³ Uninsured devices are inspected by TSSA, but represent a small minority of all BPVs. Insurers may conduct the periodic inspections with their own staff, or hire an authorized third-party inspection agency to conduct them on the insurer's behalf.

- Challenges for TSSA in operationalizing regulatory requirement to issue Certificates of Inspection;
- Confusion regarding regulatory requirements for the inspection of piping and fittings;
- Data challenges impacting TSSA's ability to conduct safety analysis;
- Limitations in the oversight of periodic inspections; and
- A structural deficit in the BPV Safety Program.

2. Panel Consensus and Discussion

2.1 Issuance of Certificates of Inspection and authority to make orders and shut down unsafe devices

Description of topic and current practice / regulatory framework

The first topic that MGCS sought the panel's feedback on was who should issue Certificates of Inspection, which authorize a boiler or pressure vessel (BPV) owner to operate or use the object. MGCS also sought advice on the related issue of potential delegation of authority to issue orders or shut down a device if a periodic inspection reveals immediate safety risks.

This is a complex topic to describe, partially because the current practice diverges from what is described in the regulation. In the regulation, after an insurer inspector conducts a periodic inspection, they are required to provide a Record of Inspection (ROI) to TSSA. In turn, TSSA is required to issue a Certificate of Inspection (COI) to the object's owner. This COI is the authorization for the owner to operate or use the device until it requires its next periodic inspection (which may be after one, two, or three years depending on the object). In practice, while some insurers⁴ have been submitting ROIs to TSSA, TSSA has not been issuing COIs. As a result, owners (and insurers) are treating the ROI as the authorization (i.e., a COI).

As a result of TSSA not issuing COIs and insurers and owners treating ROIs as authorizations, there is a general state of non-compliance with certain aspects of the regulatory requirements. Addressing this state of affairs is one of the key reasons why TSSA and MGCS sought the panel's advice and feedback.

The other part of the topic, authority to make orders and shut down devices, is simpler to describe. In both practice and in regulation, insurers must report immediate safety hazards or code violations identified during the course of a periodic inspection to TSSA. TSSA would then conduct its own inspection and, as required, make an order (requiring the owner to take remedial action) or shut down the object. As described below, MGCS wanted to know whether it would be more effective to enable insurers to make orders and shut down devices without going to TSSA.

Regulatory proposal and rationale

Prior to the regulatory review process, MGCS and TSSA developed a proposal to address the identified challenges, including those related to issuance of COIs. The draft proposal, which can be found in Appendix B, addressed the state of non-compliance by presenting a number of options, including codifying the current practice in the regulation by revising the regulation to have insurers issue the authorization rather than TSSA directly to the owner of the object after

⁴ As well as the third-party inspection agencies who work on their behalf.

the periodic inspection. The rationale for this proposal was quite simple – by codifying the existing practice, the non-compliance would be addressed without imposing any additional regulatory burden on industry or increasing TSSA’s operating costs.⁵

The regulatory proposal developed by TSSA and MGCS also recommended that insurers be granted the authority to issue orders and shut down unsafe equipment. The rationale for this element of the regulatory proposal was to streamline the process for addressing safety risks uncovered by periodic inspections by removing the need for insurers to contact TSSA and for TSSA to inspect the device. The proposal noted that inspectors working for insurers have the same qualifications as TSSA inspectors, and would be equally capable of identifying the appropriate actions required to manage risk (i.e., the appropriate order or shutting down unsafe equipment). The power proposed for insurance inspectors was based on the same powers that fuel distributors and certificate holders have under other TSSA regulations (see for example O. Reg. 212/01, ss.13 and 14).

Round table panel’s consensus position

In reviewing and discussing TSSA and MGCS’s regulatory proposal, the round table panel developed and reached consensus on an alternative regulatory approach:

Subsequent to a periodic inspection, the insurer will provide a Record of Inspection (ROI) to the owner of the inspected object. The owner will contact TSSA and, after reviewing the ROI, **TSSA may issue the owner a Certificate of Inspection (COI)** authorizing the owner to use or operate the object until the date of the next required periodic inspection. (The owner will also be required to pay TSSA a fee, as discussed further in section 3.5.)

If the periodic inspection reveals an immediate safety hazard, the insurer will not issue an ROI and will instead contact TSSA. TSSA will conduct an inspection and, depending on the results of the inspection, TSSA may issue an order or shut down the device.

Panel members had differing views on how TSSA should proceed if the periodic inspection (as documented in the ROI) reveals a code violation that does not constitute an immediate safety hazard. Some members felt that TSSA should not issue a COI if any code violation is identified. Some felt that only certain code violations should prevent TSSA from issuing a COI and others felt that a COI should be issued unless there is an immediate safety hazard. Depending on the option adopted by government, TSSA may need to consider whether a “temporary” COI should be put in place, enabling owners to legally operate their BPVs while addressing code violations that do not constitute an immediate safety hazard.

In summary, the panel’s consensus position is that MGCS should maintain the conceptual approach to authorization of boilers and pressure vessels in the existing regulatory framework (where TSSA issues the COIs and has the sole authority to issue orders and shut down

⁵ TSSA’s operating costs are in fact part of the regulatory burden on Ontario manufacturers of BPV equipment. This is because TSSA is an Ontario industry-funded regulatory authority. All of its operating expenses are ultimately paid by the industries that it regulates, with the large bulk of that coming from fees paid by manufacturers.

devices). To provide readers with an understanding of why the panel endorsed this approach, the elements of the panel discussions are summarized in the following section.

Round table panel discussion

Most (but not all) panel members were comfortable with the part of the regulatory proposal enabling insurers to issue COIs instead of TSSA. These panel members accepted MGCS's rationale that this approach would address the non-compliance issue in a way that would minimize regulatory burden to industry. The dissenting view held that it would be inappropriate to transfer a regulatory function (issuing an authorization) to insurers. In addition, legal counsel for one of the organizations represented on the panel noted a concern that issuing an authorization would create liability for insurers.

Another reason why the panel ultimately rejected the proposal to enable insurers to issue COIs was related to another topic – payment of fees. As discussed further in section 3.5 of this report, the panel felt that the most effective approach to payment of a COI fee would require TSSA to issue the COI. In developing the consensus position, some panel members considered TSSA's operational priority to have owners request the COI from TSSA directly, rather than having TSSA issue a COI based on an ROI that they receive from an insurers. This preference is based on TSSA's data governance principles and customer service commitments. In particular, the principle that TSSA should not send documentation to owners or request payment for that documentation based on unverified third-party (insurer) data.

The panel discussed but did not ultimately reach consensus on whether COIs should be issued where a periodic inspection reveals code violations that does not constitute an immediate safety risk (e.g. a missing CRN). Some panel members felt like a COI should not be issued until all code violations are resolved. However, under current regulation, an owner is not allowed to operate a BPV unless they have a valid COI (meaning that they would need to shut down the BPV until the code violation is addressed). This differs from current practice, where owners are generally allowed to continue operating the BPV while the code violation is rectified. One potential option is to provide a "temporary" or "conditional" COI to owners while code violations are addressed.

The other element of the regulatory proposal – enabling insurers to issue orders and make recommendations – was not supported by the panel. Their primary concern was that this type of authority could put insurers into a conflict of interest between their regulatory responsibilities and business priorities. The panel felt that issuing an order or shutting down an object could harm an insurer's commercial relationship with a BPV owner.

The panel also considered whether it would make sense to provide a more limited set of authorities to insurers. For example, the panel discussed whether insurers should be able to make orders in lower risk scenarios where the concern regarding conflict of interest may be reduced. The panel opted for the simplicity of maintaining the current regulatory framework (where TSSA retains sole authority to make orders and shut down objects).

Next steps: implementation / operational advice and outstanding questions

In addition to the panel's advice on regulation, they also provided advice to MGCS and TSSA on how to effectively implement and operate the regulatory model reflected in the consensus position. Their advice included the following considerations:

Table 2: Next steps for Issuance of Certificates of Inspection and authority to make orders and shut down unsafe devices

Topic	Advice
Requirement for insurers contacting TSSA	<ul style="list-style-type: none"> Insurers are required to contact TSSA should a periodic inspection reveal that the object is “unsafe to operate or use”; TSSA should provide additional guidance to insurers regarding the threshold for what qualifies as “unsafe to operate or use” (TSSA indicates that this work is underway, but that there will ultimately need to be a degree of professional judgement exercised by insurers)
Issuance of ROI / COI	<ul style="list-style-type: none"> As described in the consensus position, panel members had different views on whether some or all types of code violations should need to be addressed by the owner prior to issuance of a COI Should government decide not to issue COIs where some or any code violations are found, other regulatory changes may be required to enable a “temporary” COI. Under the current regulation, owners are not permitted to operate a BPV without a valid COI Government should re-engage expert stakeholders to develop and refine its approach to issuance of COIs where code violations are found
Modernization / innovation	<ul style="list-style-type: none"> TSSA should consider how to reduce burden and cost through modernization initiatives, including the ability to issue COIs electronically to BPV owners TSSA indicates this is a key priority for them as well

At the close of panel discussions, two questions related to the consensus position were not addressed. They will require further consideration and analysis by MGCS and TSSA.

- What happens if an owner does not contact TSSA to obtain a COI?

Under the panel’s consensus approach, owners would need to contact TSSA to obtain a COI. TSSA and several panel members raised the question of how to address the risk of owners failing to do so. The panel identified two potential avenues for addressing this concern. First, TSSA could proactively reach out to owners if they do not contact TSSA within a given period of time (this would require TSSA to be aware of the inspection having been conducted, which is part of the data and reporting model recommended in section 3.3). If this is not operationally feasible, the panel noted that the issue would be caught at the next periodic inspection of that object.

- How should compliance be ensured during the period in which an owner is waiting to receive a COI?

The panel identified a potential issue regarding the authorization to use or operate an object in the period between the periodic inspection and the receipt of a COI from TSSA. TSSA may wish to allow owners a “grace period” between the date of the periodic inspection and receipt of the

COI. Another option would be to accept the ROI provided by the insurer as an interim solution. Other approaches may also be available.

2.2 Requirement for periodic inspection of piping and fittings

Description of topic and current practice / regulatory framework

The second topic that MGCS sought the panel's feedback on was whether the periodic inspection requirement for piping and fittings should be eliminated. Piping refers to the system of pipes used to contain gas, vapour, or liquid under pressure (including flanges and elbows). A fitting refers to a device attached to a BPV including valves, gauges, and controlling device.

The current regulation requires the periodic inspection of piping and fittings "at such intervals as are set out in the code adoption document." However, the code adoption document (CAD) does not set out any intervals. As a result, there is a lack of clarity regarding the requirement for periodic inspection of piping and fittings.

In practice, neither insurers nor TSSA have been conducting periodic inspections of piping and fittings, consistent with practices in virtually every other jurisdiction in Canada and the US. Piping and fittings are inspected by TSSA after manufacture and installation. As described below, MGCS sought the panel's advice on whether the regulation should be amended to eliminate the reference to a periodic inspection requirement for piping and fittings.

Regulatory proposal and rationale

TSSA and MGCS developed a proposal to address the current confusion regarding requirements for periodic inspection of piping and fittings by eliminating the requirement currently in the regulation.

The rationale for the proposal was that the potential safety benefits of requiring periodic inspection would be outweighed by the time, cost and effort involved in conducting the inspections (in many cases, inspecting piping and fittings could require removal of insulation or drywall). Research conducted by TSSA did not reveal any other North American jurisdictions requiring the periodic inspection of piping and fittings in their regulation or legislation.

Round table panel's consensus position

In reviewing and discussing the merits of TSSA and MGCS's regulatory proposal, the round table panel developed two options for a more nuanced revision of the existing regulation:

The panel developed two options for addressing the periodic inspection of piping and fittings. Both options focused on differentiating high-risk piping and fittings from those that are lower risk. The panel did not reach consensus on which of the two options is most desirable, suggesting the need for further discussion and analysis.

Option A: Replace the current general requirement for the periodic inspection of piping and fittings with a clause that provides TSSA with the authority to take actions required to ensure the safety of piping and fittings. For example, TSSA would have the authority to require the periodic inspection of certain piping and fittings if there was a safety rationale for doing so.

In the longer term, TSSA should work with a standards development organization (SDO) to conduct analysis and develop national standards for high-risk piping and fittings. This would include a definition of what constitutes "high-risk" and requirements for periodic inspection, if they are deemed necessary. If the SDO develops requirements and definitions, TSSA should implement them in Ontario's code adoption document as mandatory requirements and, if necessary, revise the regulation.

Option B: Leave the existing general requirement for the periodic inspection of piping and fittings in place until TSSA, working with an SDO, develops a definition of "high-risk" piping and fittings. At that point, defer to SDO guidance on periodic inspection of piping and fittings that are not high-risk, while maintaining the current regulatory requirement for periodic inspection of piping and fittings that are high-risk.

In summary, all panel members agreed that periodic inspection requirements should differ based on the nature of the piping and fittings in question. They developed two options for updating the Regulation to reflect the differences in risk, both of which focus on collaboration with a standards development organization (SDO). However, the options differ in when the current requirement is removed (before or after standards are developed) and in other details. To provide readers with an understanding of why the panel endorsed this approach, the elements of the panel discussions are summarized in the following section.

Round table panel discussion

In considering the proposal to remove the requirement for periodic inspection of piping and fittings, the panel focused their discussion on the safety risks inherent to that equipment. The panel agreed that while a majority of piping and fittings are low risk, some are not. At a basic level, the risks are dependent on variables including size, pressure, flow rate, and type of gas or liquid under pressure. The panel consensus was that low-risk piping and fittings may not require periodic inspection, but the small subset of high-risk ones do.

With this principle in mind, the panel considered how to develop a regulatory framework that would promote the periodic inspection of high-risk piping and fittings without requiring it for the low-risk ones.

Some panel members noted that companies with high-risk piping and fittings often have strong internal inspection processes to manage risk, suggesting that regulation may not be required to

manage risk effectively. Ultimately, the panel as a whole thought it prudent to consider a regulatory approach to promote safety.

The next key challenge identified by the panel was how to conduct the technical research and safety analysis required to differentiate high-risk piping and fittings. The panel considered whether TSSA could conduct the required analysis unilaterally, but ultimately felt that an external standards development organization (SDO) like the Canadian Standards Association would be better positioned since it has greater capacity (given its mandate to develop technical standards) and, working through an SDO would promote regulatory harmonization across Canada.

However, it may take a long time for an SDO to conduct analysis and develop definitions and standards – perhaps more than 5 years. Recognizing this obstacle, the panel considered how to promote safety and minimize burden in the interim. Two options were ultimately developed (no consensus was reached on this issue). Those who supported Option A prioritized bringing current practice into compliance (while maintaining regulatory flexibility) while the technical research and analysis was conducted. Concerned about potential safety risk under the status quo, other panel members suggested that the current regulation should be implemented while that research and analysis is underway (Option B).

Next steps: implementation / operational advice and outstanding questions

In addition, to the panel’s advice on regulation, they also provided advice to MGCS and TSSA on how to effectively implement and operate the consensus position. Their advice included the following considerations:

Table 3: Next Steps for requirement for periodic inspection of piping and fittings

Topic	Advice
Getting on the agenda of an SDO	<ul style="list-style-type: none"> TSSA should consider how to get this issue on an SDO’s agenda and move it forward, suggesting that round table panel members could assist

2.3 Periodic inspection data and reporting requirements

Description of topic and current practice / regulatory framework

The third topic that MGCS sought the panel’s feedback on related to data collection, reporting, and safety analysis. Part of TSSA’s mandate is to provide government, industry, and the public with information and analysis related to the state of safety of BPVs in Ontario. Data generated through periodic inspections has the potential to play a key role in the execution of this mandate.

Today, TSSA is conducting limited safety analysis. For example, it is unclear how many BPVs are currently being operated in Ontario.

Under the current regulation, after each periodic inspection, insurers are obligated to send an ROI to TSSA within 21 days, and are also required to notify TSSA if insurance is cancelled, suspended, or expired. Further, owners are required to report incidents where an explosion or rupture of a BPV (or fitting or piping) occurs, or where an accident causes injury or death to a person or damages property.

In theory, these reporting requirements should provide TSSA with a strong evidence base for conducting safety analysis. However, standardized formats and processes for data reporting have not been defined by TSSA and insurers' reporting practices vary. Insurers send TSSA different information in different formats, on varying timelines. TSSA is not capturing this information within a data system. As a result, TSSA is not conducting the proactive and reactive safety analysis that it may wish to (e.g., aggregate analysis of the fleet of BPVs in Ontario, responding to future safety incidents, conduct preventative risk-planning and safety activities).

MGCS and TSSA wanted the panel's advice on how to address these challenges and enhance TSSA's safety analysis capabilities while minimizing the regulatory burden.

Regulatory proposal and rationale

TSSA and MGCS's regulatory proposal was for insurers to collect and maintain periodic inspection data. They would provide aggregate reporting to TSSA on a regular basis (e.g., annually) and would provide other information required for safety analysis to TSSA upon request. Performance standards would be defined for insurers with regard to both data collection and reporting. TSSA would provide instructions regarding what data would need to be collected⁶ and reported on, as well as defining timelines for regular reporting and ad hoc responses to TSSA data requests.

The proposal also addressed incident reporting. Similar to the current regulation, BPV owners would be required to report incidents, but this requirement would also be extended to insurers (if and when they become aware of the incident).

To explain this proposal, consider a scenario where a BPV somewhere in the province failed. After ascertaining the Canadian Registration Number (CRN) through the incident report, TSSA could reach out to all insurers to determine how many similar BPVs were operating in the province, where they were, and who owned them (if TSSA had cause to conduct a broader safety analysis). TSSA could then communicate with those owners, issue safety bulletins or take other appropriate actions to mitigate the safety risk.

⁶ The proposal included a list of sample data points that insurers would be obligated to collect and maintain:

- Manufacturer and serial number of device
- Canadian Registration Number (CRN)
- Type of building where device is located
- Date of last inspection of device
- Inspection reports for each device
- Non-compliance orders issued for device
- Number of devices insured by insurer
- Incident reports
- Contact information of inspectors
- Copy of certification of inspectors.

The core of this model is that insurers, not TSSA, would maintain the periodic inspection data. When TSSA required the full inspection data, it would be provided to them by insurers.⁷

The primary rationale for this approach was minimization of the regulatory burden. Insurers already collect and maintain periodic inspection data. Further, under the regulatory proposal, insurers would issue COIs directly to owners, rather than sending an ROI to TSSA, which would then issue the COI. The proposed data and reporting model would not require insurers to send TSSA the inspection information and would not require TSSA to develop the IT capabilities required to receive and maintain that data. In summary, the proposal was thought to be less costly while still enabling TSSA to get the information that it required to conduct both proactive and reactive safety analysis.

Round table panel's consensus position

In reviewing and discussing potential implications of TSSA and MGCS's regulatory proposal, the round table panel reached consensus on an alternative approach:

Insurers should be obligated to send periodic inspection data relevant to TSSA's safety mandate to TSSA, which would maintain that information in a database. TSSA should develop and communicate guidelines on precisely what information it requires from insurers and how that information is to be submitted.

However, the panel notes that its consensus position is contingent on MGCS and TSSA ensuring that commercially sensitive information is not disclosed (or used by TSSA for non-regulatory purposes) and that the costs of implementing and operating the model will be reasonable. The panel encourages MGCS and TSSA to re-engage a cross-section of stakeholders to confirm that these conditions have been met.

As a separate element of the consensus position, insurers should continue to notify TSSA when insurance is suspended, cancelled or expired, and should be obligated to report incidents (ruptures, explosions, accidents that cause injury, death, or property damage) if and when they are made aware of them.

In summary, the consensus position of the panel is that TSSA should maintain a database with periodic inspection information rather than relying on insurers to provide the information upon request. The panel had a rich and robust discussion on the topic, key elements of which are summarized in the following section to provide readers with an understanding of why the panel rejected the proposed approach and agreed on an alternative option.

Round table panel discussion

Before discussing the merits of the regulatory proposal and defining alternative options, panel members clarified and considered current data and reporting practices. Insurers on the panel described their reporting practices, which included sending TSSA copies of ROIs (which some insurers label COIs), loss prevention reports (which are written if recommendations are made on the basis of the periodic inspection) and quarterly reports with aggregated information.

⁷ As noted above, insurers would also be obligated to provide aggregate reporting on a regular basis. Sample requirements in the proposal included: any periodic inspection backlogs, status of compliance orders issued, incident reporting and the inventory of BPVs they are responsible for inspecting.

Panel members further confirmed that the reports they sent varied based on the insurer in question, and that the reports were being sent in a variety of formats, with different levels of detail and through both electronic and paper-based channels. The panel noted that TSSA had not provided specific direction on what reports it required, as well as the format / channel it preferred. Critically, all insurer panel members indicated their willingness to provide TSSA with inspection data in any reasonable format / channel that it defined⁸.

The panel also reviewed the list of periodic inspection data points included in the draft regulatory proposal (see Appendix B or the footnote above). They noted that these are the types of data points currently being captured, and they would provide TSSA with the information it needed to effectively conduct both proactive and reactive safety analysis. The panel also suggested adding the precise location of the device to the list.

Notwithstanding the short discussion of key data points required, the panel focused the majority of its time and energy on this topic discussing a more fundamental question: should TSSA hold the periodic inspection data or should insurers hold it and provide to TSSA upon request.

All panel members supported the overarching goal of enabling TSSA to better conduct safety analysis. They agreed that proactively identifying safety risks and responding to safety incidents were critical components of TSSA's mandate, and that TSSA's current capabilities to conduct this analysis should be improved.

Two key arguments were raised in favour of the proposal to have insurers hold the data:

1. It would minimize TSSA's operating costs (which in turn minimizes regulatory burden), as TSSA would not need to build and maintain a database.
2. Data collected by insurers would remain with insurers, limiting potential concerns related to sharing of commercially sensitive or private customer data.

Three fundamental arguments were raised in support of the alternative option, TSSA receiving and maintaining the periodic inspection data:

1. It would enable TSSA to conduct sector-wide safety analysis more quickly, given that it would not need to request the information from insurers.
2. It would reduce risks related to insurers being unable to provide requested information within the required timelines.
3. It would reduce the risks of data issues or losses when insurance is switched or if an insurer exits the BPV periodic inspection business.

The consensus position adopted by the panel, that TSSA should maintain the data, was based on several key considerations. First, the panel recommended that TSSA issue COIs to owners rather than having insurers issue the COIs (see section 3.1). The panel felt that under the recommended approach, TSSA would be more involved in the periodic inspection process than under the regulatory proposal, and so it should also receive and maintain the detailed periodic inspection data. While issuing COIs is separate and distinct from maintaining periodic inspection

⁸ Insurers did note that they would not support TSSA having direct access to their data systems (which was not part of the regulatory proposal).

data, the panel noted that a certain baseline level of data would be required to issue the COI. Second, MGCS and TSSA indicated that commercially sensitive information could be protected (either it would not be required by TSSA, or, if it were, TSSA would not be obligated to release it to public), but the definition of what constitutes commercially sensitive information would have to be clarified by TSSA and insurers. As described further in the next steps section below, further work is required in defining exactly what information would be commercially sensitive and how it would be protected.

In developing its consensus position, the panel considered and sought to integrate TSSA's principles regarding data collection and use. TSSA is renewing its enterprise IT systems as part of its TSSA 20/20 modernization initiative. During the panel process, TSSA articulated a series of data principles underlying that modernization which would also apply to the collection and use of periodic inspection data. These principles focus on quality standards across the data lifecycle, including clear recognition of where the data originate (in this case, from insurer periodic inspections), and robust data stewardship.

The consensus position noted caveats related to confirming that commercially sensitive data can be protected, and that the costs of the recommended model are not prohibitive. The panel sought information from MGCS and TSSA on what it would cost for TSSA to build and maintain a capability for periodic inspection data. In particular, the panel wanted to understand the extent to which this issue would impact the fees paid by owners for a COI (see section 3.5). However, the cost information was not available from TSSA within the timelines of the panel process, limiting the panel's ability to come to a firm and final consensus position on this topic.

The panel also expressed a desire to understand MGCS's expectations for TSSA's ability to conduct safety analysis. MGCS indicated that it did not have a predetermined set of expectations and that the panel discussion would be a key input in setting those expectations. In listening to and reflecting on panel discussions, MGCS agreed that holding the periodic inspection data generated by insurers would better enable TSSA to analyze trends, track devices, identify inspection status and conduct other relevant analysis. MGCS further agreed with the panel and TSSA that further work was required to identify the specific data points that TSSA would need to maintain, determine the data governance model and related system requirements, as well as addressing issues related to commercially sensitive data.

Next steps: implementation / operational advice and outstanding questions

In addition, to the panel's advice on regulation, they also provided advice to MGCS and TSSA on how to effectively implement and operate the consensus position. Their advice included the following considerations:

Table 4: Next steps for periodic inspection data and reporting requirements

Topic	Advice
Data and reporting requirements / ROI format	<ul style="list-style-type: none"> • TSSA will need to determine what periodic inspection information that it needs, the format of the information and channel for insurers to provide the information • TSSA should outline the data governance model and related system requirements to establish clear a understanding of what functionalities can be provided • TSSA should consult with insurers and other key stakeholders to refine the data and reporting requirements • Given the panel’s recommendations on issuance of COIs (section 3.1) and fees (section 3.5), the simplest way to obtain the information is likely to have insurers provide TSSA a copy of the ROI that they give to owners after a periodic inspection
Data privacy	<ul style="list-style-type: none"> • TSSA should provide information regarding what information and data are defined as proprietary and how such information that may be part of an ROI or would otherwise be captured in the proposed model would be protected, in consultation with BPV owners, insurers and other impacted stakeholders
Cost	<ul style="list-style-type: none"> • TSSA should assess costs of developing the required data capabilities and determine the impact this would have on COI fee (see section 3.5) • Based on that analysis, MGCS should determine whether regulatory burden imposed would be too high or whether it can move forward with this model

2.4 Periodic inspection oversight

Description of topic and current practice / regulatory framework

The fourth topic that MGCS sought the panel’s feedback on was how to improve TSSA’s oversight of the periodic inspections being conducted by insurers. TSSA does not currently audit insurers. TSSA has two primary oversight mechanisms presently available to it. First, TSSA has the authority to review insurer practices. Second, TSSA receives reports and documentation from insurers (as described in section 3.3).

Insurers are also audited by the National Board of Boiler and Pressure Vessel Inspectors (“National Board”) every three years. Some insurers are also audited by the American Society of Mechanical Engineers (ASME).

Given the fundamental role of insurers in managing the risks associated with the operation of Ontario BPVs through their periodic inspection work, MGCS requested the panel’s feedback on how to improve the current state of TSSA oversight. As described below, the regulatory proposal sought to improve TSSA’s oversight of insurers through the development of an audit and

attestation program that would monitor and confirm that insurers are complying with Ontario's jurisdictional requirements under the *Boilers and Pressure Vessels Regulation*.

Regulatory proposal and rationale

The regulatory proposal developed by TSSA and MGCS included three new mechanisms to enhance TSSA's oversight of insurers: authorization, attestation and audit.

Insurer authorization refers to a process for authorizing insurers to conduct periodic inspections. Attestation refers to a process where insurers would acknowledge, in writing, that they were compliant with requirements in the CAD and Regulation. Audits would verify that the information in the attestation was accurate.

The regulatory proposal included an overview of the requirements that an audit and attestation program could encompass:

- Periodic inspections are conducted at the frequency specified in the code adoption document;
- Inspections are completed to the standard specified in the code adoption document;
- Inspection information collected is accurate;
- Owner/operators resolve non-compliances within the allowed time to comply that is identified during periodic inspections by insurer;
- Reportable incidents are reported to TSSA within required time frames;
- Inspectors working for insurers are properly trained and certified;
- Insurers are keeping required information and documents in the format specified by TSSA;
- Insurers can fulfill their reporting requirements as specified by TSSA; and
- Inventory of BPVs can be confirmed for reporting requirements.

The proposal suggested that the scope and frequency of audits would be determined based on: the outcomes of insurer attestations, the discretion of the Statutory Director based on safety concerns, public complaints, or other systemic non-compliance issues, and previous audit results.

The proposal noted that audits would be conducted by TSSA staff or by third-parties that it contracted. The audit program would include a range of sanctions (e.g., higher audit frequency, conditions on authorizations, or, in more extreme cases the suspension or revocation of the insurer's authorization to conduct periodic inspections). In addition, insurers would pay for TSSA audits on a cost-recovery basis. The full draft regulatory proposal can be found in Appendix B.

The rationale for the audit and attestation program was to ensure that TSSA could fulfil its key oversight responsibilities of insurers (as required by government) including accounting for the inspection status of objects, verifying the quality and frequency of periodic inspections, identifying inspection backlogs and, more generally, having confidence in the quality and integrity of periodic inspections. The use of attestations was designed to limit regulatory burden, while the audit component was recommended to ensure the integrity of the attestations.

The rationale for the insurer authorization proposal was to provide TSSA more regulatory authority over insurers and third-party inspection agencies in order to ensure compliance with the regulatory requirements.

Round table panel's consensus position

In reviewing and discussing potential implications of the regulatory proposal, the round table panel endorsed two of the key elements (attestation and audit) with specific caveats and refinements, and some rejected the proposed insurer authorization process:

An attestation and audit program should be established to provide oversight of insurer periodic inspections. The attestation and audit process should complement and build on existing internal and external audits of insurers, where relevant, to minimize regulatory burden without compromising oversight.

The attestation and audit process should address:

- Periodic inspections are conducted at proper frequency and standard (as defined in code adoption document);
- Inspection information collected is accurate;
- Incidents are reported to TSSA within allowable time;
- Insurers collect and maintain information in a format specified by TSSA;
- Inspectors are properly trained and certified;
- Insurers can fulfil reporting requirements, and the inventory of BPVs can be confirmed
- Whether insurers are directly conducting the inspections or retaining a third-party;
- Safeguards against potential conflicts of interest; and
- Descriptions of thresholds used for issuing recommendations to owners.

Should an audit reveal significant deficiencies in insurer practices, TSSA would require those deficiencies be resolved and would select that insurer for more frequent audits to ensure compliance. The panel discussed but did not reach consensus on an appropriate model for insurer authorizations or for other potential sanctions where an audit reveals deficiencies.

The panel further noted that the costs of the audits should be kept low to minimize the financial burden (well below the potential cost range of \$5,000 - \$50,000 noted in the regulatory proposal). The panel also indicated that TSSA should not retain a third-party to assist with any audits due to concerns related to commercially sensitive information.

The panel's support for an attestation and audit program is contingent on a further opportunity to review more information about the specific attestation and audit requirements, protocols and sanctions.

The panel discussion on potential insurer authorization was inconclusive, with no consensus being reached.

In summary, the panel's consensus position accepted an audit and attestation program in principle, but identified areas that require additional analysis and adjustment. To provide readers with an understanding of why the panel endorsed this approach, key elements of the panel discussions are summarized in the following section.

Round table panel discussion

The panel supports the development of an audit and attestation program in principle as a means of enhancing oversight of periodic inspections. While panel members have a high degree of confidence in the insurers carrying out these inspections, they also understand the government's desire for greater assurance. The panel believes that the effectiveness of the attestation and

audit program will depend greatly on aspects of scope, protocols and processes that have not yet been determined, and would encourage TSSA to consult further with stakeholders to the extent feasible and appropriate.

Notwithstanding this broad caveat, the panel discussed and provided advice on many aspects of the attestation and audit proposal:

- Scope of attestation and audit;
- Risk of audit duplication / overlap;
- Role of third parties in conducting audits;
- Innovative audit approaches;
- Determination of audit schedule and focus;
- Audit costs; and
- Audit sanctions.

Scope of attestation and audit

In reviewing the regulatory proposal's overview of the requirements that an audit and attestation program could encompass, the panel felt that several topics should be added to the list:

- Whether the insurer is engaging a third-party inspection agency to conduct the audits or conducting them with their own staff;
- How insurers are managing potential conflicts of interest between their underwriting and inspection business; and
- The thresholds for issuing recommendations to owners on code violations (e.g., how insurers determine how long an owner should have to address a code violation).

The panel also noted that one of the proposed requirements (resolution of non-compliance within allowable time) would no longer be relevant under the panel's proposed consensus position on authority to issue orders (see section 3.1). However, the audit would still assess how insurers handle and follow up on non-compliances.

Risk of audit duplication / overlap

Panel members noted that insurers are already audited by the National Board (and some by ASME) and also have internal audit functions. Given MGCS's desire to minimize the regulatory burden, the panel believes that other external and internal audits should be leveraged by TSSA to reduce the risk of duplication and overlap and to reduce the cost of audits (see below). In particular, the panel noted that TSSA audits should focus exclusively on jurisdictional requirements (as described in the regulatory proposal) to avoid duplication with the audits noted above. TSSA auditors should also review and take into account internal audits conducted by insurers to the extent those audits are relevant to TSSA's oversight of insurers' regulatory responsibilities under the BPV Regulation.

Role of third parties in conducting audits

The regulatory proposal suggested that third-parties may be engaged to support TSSA audits. TSSA clarified that this would only be in limited circumstances where additional expertise was required. The panel does not support third-party involvement in TSSA audits due to concerns regarding access to commercially sensitive, proprietary data. They were also concerned that third parties could substantially increase the cost of audits.

Innovative audit approaches

The panel suggested TSSA consider adopting innovative approaches to auditing, including, for example, data retrieval exercises and business continuity tests. Panel members also suggested that it may be valuable to include training on jurisdictional inspections as part of an audit program, noting that the National Board audit process has a training component.

Determination of audit schedule and focus

Panel members reviewed the regulatory proposal's suggestion to base audit frequency and focus on the outcomes of insurer attestations, the discretion of the Statutory Director based on safety concerns, public complaints, or other systemic non-compliance issues, and previous audit results.

The panel suggested that a risk-informed decision-model (RIDM) be developed. Separately, they asked TSSA to consider whether it would be possible to align TSSA audits with the tri-annual cycle of National Board audits.

Audit costs

The regulatory proposal noted that all audits would be conducted on a cost recovery basis (i.e., that insurers would be obligated to pay for the cost of TSSA audits) and included a potential cost estimate ranging anywhere from \$5,000 - \$50,000 depending on the scope and complexity of the model and whether a third-party audit partner was required. The panel clearly noted that they found this cost estimate to be unreasonable, with several panel members noting that National Board audits cost significantly less (between \$3,000 and \$4,000 including travel and accommodation). The panel indicated that its support for an attestation and audit program was conditional on costs being lower than the estimated range.

Audit sanctions

The regulatory proposal noted that potential sanctions could include greater frequency of audits or conditions on authorizations, and in more extreme circumstances, suspension or revocation of authorization. The proposal also suggested that a process be developed for authorizing insurers to conduct periodic inspections.

The panel did not achieve consensus on an authorization process or an audit sanction of authorization suspension / revocation, despite TSSA and MGCS indicating that authorizations are a standard regulatory mechanism and that suspension and revocation of authorizations would be an extreme and unlikely last-step when other enforcement options had been exhausted.

First, the panel had legal questions regarding TSSA's authority to suspend or revoke authorization. Second, some panel members felt that there was already an implicit authorization in the existing regulation. Third, some panel members questioned whether TSSA would have the capacity to take on periodic inspections for an insurer should their authorization be suspended. Ultimately, the panel did not reach consensus on an audit sanction approach within the time constraints of the panel process.

Next steps: implementation / operational advice and outstanding questions

In addition to the panel's advice on regulation, they also provided advice to MGCS and TSSA on how to effectively implement and operate the consensus position. Much of that advice has

already been captured in the preceding section, but the following considerations, which were not addressed in the regulatory proposal, were also raised:

Table 5: Next steps for periodic inspection oversight

Topic	Advice
Audit / attestation instructions	<ul style="list-style-type: none"> Panel members requested that TSSA support implementation of any audit and attestation function by developing guidelines, checklists, and definitions for key terms (e.g. “significant deficiencies”) TSSA noted that these supporting documents are under development, and would be distributed in advance of implementing an audit / attestation program to help facilitate change management related activities, as appropriate (some audit approach details would not be shared in advance due to concerns regarding the integrity of the audit)
“Drive-by” periodic inspections	<ul style="list-style-type: none"> Panel members noted that an audit program TSSA should include “spot-checks” to ensure that inspections were in fact conducted (a “drive-by” inspections would occur if an insurer provided an ROI without actually conducting an inspection)

2.5 Fees

Description of topic and current practice / regulatory framework

The fifth and final topic that MGCS sought the panel’s feedback on was the introduction of fees to address and resolve the BPV Program’s outstanding structural deficit. Today, the BPV Safety Program is funded through shop and installation (first) inspections, welder testing, engineering design registrations, and non-regulatory revenue sources (inspections of nuclear facilities). While the existing regulation enables a fee to be charged to owners for their COI, this element of the regulation has not been put into practice due to challenges operationalizing the regulatory requirement.

Current revenue sources do not match the cost of the Safety Program, resulting in a \$1 million average annual deficit.

TSSA is an industry-funded regulatory authority. It does not receive government funding. As a result of the structural deficit, the BPV Safety Program is being subsidized by other TSSA programs. Under the terms of TSSA’s Memorandum of Understanding with MGCS, TSSA should reduce cross-subsidization of its safety programs to promote fairness across the industries that it regulates. Any change to the TSSA’s fees regarding the program must take this principle into account.

As described below, MGCS wanted to receive the panel’s feedback on what type of fee structure would most fairly, efficiently and feasibly address the structural deficit.

Regulatory proposal and rationale

The regulatory proposal addressed the structural deficit through a Certificate of Inspection (COI) fee. Insurers would pay TSSA a fee for the COIs they issued.⁹ The regulatory proposal estimated the level of the fee at \$15 per COI issued.

The fees could be paid in “bulk.” For example, if an insurer had issued 2000 COIs in a year, they would remit a payment of \$30,000 to TSSA, not 2000 payments of \$15. MGCS assumed that the cost burden would be shared with owners – that insurers could recover some of the cost of the fee from BPV owners.

The primary rationale for this fee model was efficiency. The proposed model would limit the number of transactions through which TSSA would receive fees and would eliminate the need for TSSA to enter into transactional relationships with the thousands of BPV owners across Ontario.

A much smaller, secondary revenue source was also proposed. Insurers would be charged an annual fee for their authorization to conduct periodic inspections (see section 3.4). See Appendix B for the full draft regulatory proposal.

Round table panel’s consensus position

In reviewing and discussing potential implications of the regulatory proposal, the round table panel reached a consensus position that refined the regulatory proposal:

The panel supports charging owners a COI fee to address the structural deficit in the BPV program. Determining the appropriate fee level and structure will require further information and analysis. The panel recommends further consultation with industry once this additional analysis is complete.

While TSSA and MGCS had also proposed a process and annual fee for authorizing insurers to periodic inspections, the panel’s consensus position does not endorse this approach.

In summary, the panel’s consensus position was to address the deficit through a COI fee that would be paid to TSSA by owners (not insurers). To provide readers with an understanding of why the panel endorsed this approach, key elements of the panel discussions are summarized in the following section.

Round table panel discussion

Given the long-standing deficit of the BPV Safety Program, panel members accepted that new fees are required. As a result, panel discussion focused on identifying an effective and efficient way to remit payment to TSSA. Initial discussions focused on the feasibility of potential payment avenues.

Insurers on the panel described the nature of their customer relationships, which are generally mediated by an insurance broker. The insurers explained that they do not generally have transactional relationships with owners and as a result would face difficulties in recovering some or all of the COI fee were the regulatory proposal to be adopted.

⁹ As described in section 3.1, the regulatory proposal also suggested that COIs would be issued by insurers.

As a secondary option, the panel considered whether brokers could recover fees from owners and pass them through to insurers (who would in turn remit the fees to TSSA per the regulatory proposal). While brokers do have transactional relationships with owners, this option would also create operational challenges. For example, brokers bill owners at the beginning of the fiscal year, so they would need to charge owners in advance of the periodic inspections.

The panel's desire for an efficient solution, combined with the challenges associated with insurers recovering fees from owners, led the panel to consider a solution where owners pay the fee directly to TSSA. The core issue with this approach was that TSSA indicated that it would be inappropriate for them to invoice owners where they did not have any prior interaction with those owners (they sought to avoid owners receiving a TSSA invoice "out of the blue").

The consensus position was that owners would contact TSSA to receive a COI and make a payment to TSSA in order to receive that COI. Insurers would indicate to owners that they needed to reach out to TSSA. Insurers would use the ROI they provide to owners after a periodic inspection to provide this direction. The panel noted that one benefit of a "direct to owner" payment model was to increase owner awareness of the TSSA and the owners' responsibilities to have their objects periodically inspected.¹⁰

The level of the COI fee was another topic of discussion. TSSA explained that it had developed the \$15 estimate based on an assumption of 200,000 insured BPVs in the province. This estimate was derived by TSSA partially on the basis of the number of installation inspections they had conducted. This estimate was also based on the assumption that the current operating cost of the BPV Safety Program would be maintained. Given the panel's recommendation for TSSA to develop and maintain a database for BPV data, as well as a capability for issuing COIs and receiving payment from owners, BPV Safety Program operating costs will increase. The panel suggests that TSSA develop a revised estimate of the COI fee required to address the BPV deficit.

Several panel members indicated that while some sectors made up of larger firms (e.g., power generation) would not be particularly sensitive to the exact level of the COI fee, sectors with medium sized firms (e.g. pulp and paper, mining) and small firms (e.g. dry cleaning) would be. The panel encourages government to consider the impact of the COI fee on business (especially small business) in Ontario in light of its "Open for Business" objectives.

Several panel members also suggested that refinements could be made to the basic concept of a set fee charged per COI. One idea was to set a minimum fee per owner that would not be based strictly per COI and another idea was to vary the level of the COI fee based on the complexity of the inspection required (e.g., high pressure boilers, which are more complex to inspect, could have a higher fee than pressure vessels, which are less complex).

Over the course of the panel's discussions regarding fees and potential revenue streams, a number of alternative options were considered. For example, the panel considered whether owners could pay a flat (or tiered) annual fee to TSSA that would not be tied to the issuance of a

¹⁰ Panel members discussed "gaps" in periodic inspections during several round table meetings. Owners may be unaware of the requirements for periodic inspection, and insurers often rely on owners to disclose their objects (i.e., insurers do not inspect all the premises of their customers to comprehensively determine the number of BPVs they have).

COI. The panel felt that it would be hard to promote fairness across owners under this option and that it would lack transparency. The panel also considered whether insurers could pay TSSA a flat or tiered fee to cover the deficit and recover those costs from owners through the pricing of insurance policies rather than a direct mechanism. While this option would be administratively simple, it was also thought to be less fair and transparent.

The final alternative option identified by the panel would be a “licensing” approach, which would require all BPV owners to obtain a license for their objects (irrespective of the periodic inspection cycle). Some panel members suggested that a licensing model could complement the COI fee model described in the consensus position, while others thought it would be an alternative. Overall, there was no consensus view on the differences between a licensing approach and the recommended approach, or on the desirability or impact of a licensing approach.

As described in section 2.4, some panel members were not supportive of an insurer authorization process and associated fees.

Next steps: implementation / operational advice and outstanding questions

In addition to the panel’s feedback on the regulatory framework, they also provided advice to MGCS and TSSA on how to effectively implement and operate the consensus position. Their advice included the following considerations:

Table 6: Next steps for fees

Topic	Advice
COI fees	<ul style="list-style-type: none"> As discussed above develop a revised estimate for the required COI fee based on the recommended consensus positions The panel discussed whether MGCS and TSSA should move quickly to implement a fee structure rather than waiting until comprehensive analysis was completed given the need to address the deficit but did not reach consensus They also discussed whether it would be prudent from a “change management” perspective to initially set the fee at the upper end of the estimated cost range and then adjust it downwards as required to increase owner acceptance; consensus was not reached
Payment process	<ul style="list-style-type: none"> Panel members articulated a desire to automate remittance for COIs whenever possible (e.g., a web-based portal where owners could pay and then print the COI directly), but also flagged that traditional payment channels should be offered as well TSSA indicated web-based payment options will be included in its forthcoming IT system upgrades
Proactive invoicing	<ul style="list-style-type: none"> As discussed in section 3.1, some panel members indicated that TSSA should proactively reach out to owners after a periodic inspection to increase awareness of the requirement to obtain a COI One way to accomplish this proactive outreach would be to invoice BPV owners

3. Conclusion

The round table met the objectives of the regulatory review: it provided the Ministry of Government and Consumer Services (MGCS) with a set of consensus positions to address key challenges within the scope of the review. In developing their positions, the panel remained focused on the broad objectives of the regulatory review: promoting safety, minimizing regulatory burden and achieving financial sustainability.

The table below describes the topics the round table was asked to address, the key challenges associated with those topics and a summary description of the panel’s consensus position:

Table 7: Summary of key topics, challenges and panel consensus positions

Topic	Challenge	Panel’s Consensus Position (Summary)
Issuance of Certificates of Inspection (COIs) and authority to make orders and shut down unsafe devices	Non-compliance with regard to TSSA’s issuance of BPV authorizations (Certificates of Inspection)	TSSA should issue COIs directly to owners and maintain sole authority to make orders and shut down devices
Requirement for periodic inspection of piping and fittings	Confusion regarding regulatory requirements for the inspection of piping and fittings	Regulations for periodic inspection should differentiate between high-risk and low-risk piping and fittings based on research and analysis conducted through a standards development organization (SDO). The panel developed two options for how and when to update the regulation to reflect the differentiation.
Periodic inspection data and reporting requirements	Data challenges impacting TSSA’s ability to conduct safety analysis	An attestation and audit program should be established to provide oversight of insurers practices regarding Ontario’s jurisdictional requirements for periodic inspections
Periodic inspection oversight	Limitations in the oversight of periodic inspections	TSSA should maintain a database with the periodic inspection data that it needs to conduct safety analysis; insurers should provide this data to TSSA in a standardized format after each periodic inspection

Topic	Challenge	Panel's Consensus Position (Summary)
Fees	A structural deficit in the BPV Safety Program	Owners should pay a fee to TSSA for their COIs

The panel offered specific recommendations for MGCS and TSSA to consider as it moves forward in the regulatory process, and recommends that both organizations continue to consult with a broad cross-section of stakeholders as regulatory and operational details are defined.

Selected key next steps for MGCS and TSSA include:

- Developing a standardized format for Records of Inspection (ROIs) and a process for insurers to provide key ROI data to TSSA;
- Articulating how MGCS and TSSA intend to address the panel's concerns regarding commercially sensitive data;
- Estimating the cost of operating the panel's proposed regulatory framework and the impact of those costs on the level of the COI fee required to address the BPV Safety Program deficit;
- Providing stakeholders with more information about the attestation and audit program, including draft guidelines for completing the attestation process;
- Developing and implementing modern, web-based tools for key interactions including payment of COI fees, receipt of COIs and submission of ROI data; and
- Continuing to pursue regulatory harmonization across Canada through a standards development organization (SDO), including definitions and requirements for piping and fittings.

In addition, the panel strongly encourages MGCS and TSSA to effectively communicate the new regulatory model to its stakeholders, with a particular emphasis on BPV owners and operators. While insurers, third-party inspection agencies and others play an important role in the periodic inspection process, it is critical that owners understand and act on the requirement for periodic inspection. During the course of panel discussions, it became clear that many owners today are unaware of BPV regulatory requirements, and the panel believes that MGCS and TSSA can play a significant role in addressing the awareness gap. Panel members would be pleased to support this critical task with advice and through their own networks and channels.

It is clear that good regulation is not enough. Most of the challenges that the panel was asked to address were created at the intersection of regulation and practice. The panel believes that by thoughtfully addressing the next steps identified in this report, MGCS and TSSA can avoid re-creating the challenges faced today, where operational issues undermine the effectiveness of regulation.

While the panel process has been challenging – it is not easy to reach consensus on technical regulatory policy in limited time – it has been rewarding. The panel believes that the consensus positions and next steps articulating in this report provide the foundations of a regulatory framework that can promote the safety of Ontarians, minimize regulatory burden and address the financial sustainability of the BPV Safety Program. All panel members have a strong commitment to public safety and were pleased to volunteer their time to promote this objective.

Panel members look forward to continued engagement with MGCS and TSSA on this important, complex regulatory review and hope that this report will enable other Ontarians to contribute

their views and priorities to the review. The panel members also noted that there were several other issues with the current regulations and that a similar round table approach should be considered in the near future to address these issues.

Appendix A:

Terms of Reference for the Panel

Round Table Objectives

The round table is a time-limited group established by the Ministry of Government and Consumer Services, with the support of the Technical Standards and Safety Authority (TSSA) and brought together for a special purpose. In this instance the objective of the group is to lend their sector experience to the review, refinement and validation of a draft regulatory proposal to amend the Boilers and Pressure Vessels (BPV) Regulation (O. Reg. 220/01). The focus of the proposal is on the periodic inspections process, authorization and reporting requirements. TSSA's inspections of BPV manufacturers and BPV installation inspections are not within the scope of this project.

Round table meetings will be facilitated by a consultant who will also assist in revising the regulatory proposal on behalf of the round table. The draft proposal will be circulated to the round table members in advance of the meetings. Round table representatives will be encouraged to share the proposals with their association colleagues broadly for discussion and comment.

The revised proposal will be used by the ministry as the basis for broader consultation with the public and industry stakeholders through the Ontario Regulatory Registry and to inform future government decision-making. It is anticipated that the revised proposal will be posted on the Registry in spring-summer 2016. Government decision-making on the proposal is then expected to take place in fall 2016 (TBC).

Round Table Composition

Round table members are selected by the ministry with the support of TSSA. Round table members bring a variety of professional experience, technical expertise, and public safety backgrounds.

Invited members will include insurers, BPV owners/operators, third-party inspection agencies, and manufacturers.

Round Table Member Responsibilities

- Attend round table meetings
- Work cooperatively with the meeting facilitator
- Review materials that may be distributed in advance of round table meetings
- Engage and participate in round table discussions
- Strive for consensus on the proposal
- Maintain a respectful environment where all are welcome to share their views
- Contribute to the review, refinement and validation of the draft regulatory proposal. The facilitator will assist in revising the proposal on behalf of the round table.

Facilitator's Responsibilities

- Develop the round table work plan
- Prepare meeting agendas and materials
- Facilitate round table meeting discussions and take notes
- Prepare a findings report, which includes:
 - An overview of the stakeholder roundtable process;
 - A summary of discussions covered by the stakeholder round table meetings; and
 - A revised regulatory proposal that reflects roundtable input.

MGCS and TSSA Responsibilities

- Support the round table by providing information and clarification on the engagement and regulatory processes as well as BPV technical expertise

Public Service and Confidentiality

Participation as a member of the round table requires a commitment to the broader public interest. Round table members agree to share information and collaborate, while respecting each other's opinions, and representing the views and interests of the people of Ontario.

The names of all round table members will be posted on the ministry's website to ensure public transparency.

Meetings will be conducted under the Chatham House Rule:

- *When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.*

Logistics

At the first meeting, the round table will discuss and come to a consensus on the final terms of reference, proposed agendas for meetings, number of meetings and duration of meetings.

The facilitator will strive to accommodate the schedules of round table members. Where a member is not able to attend a meeting, the member will be able to provide the facilitator with written comments.

It is anticipated that there will be up to five round table meetings, held approximately every two weeks, beginning in early February 2016 and ending in mid April 2016. Meetings are anticipated to be 4-5 hours long, subject to discussion topics and meeting agendas.

Meetings will be held in the GTA and will occur during regular business hours. Alternative arrangements such as teleconference facilities will be made for members unable to travel.

The facilitator will book and coordinate meeting dates, times and locations and provide any meeting day materials.

Lunch will be provided during round table meetings.

Each round table member will be responsible for their own travel costs and for any other expenses incurred to attend and participate in the round table meetings. Please contact Nathan Fahey, Senior Policy and Program Analyst at 416-326-8875 or nathan.fahey@ontario.ca for any special accommodation needs such as dietary or accessibility need.

Background

In March 2014, the Ministry of Consumer Services (now the Ministry of Government and Consumer Services) and the Technical Standards and Safety Authority (TSSA) launched a review of the administration of the Boilers and Pressure Vessels (BPV) regulation in Ontario (O. Reg. 220/01). The review was initiated in response to extensive discussions over the past years within TSSA, its Advisory Council, and the ministry concerning the administration of this regulation.

Through this review, the ministry and TSSA are seeking to resolve long-standing operational challenges with the BPV regulation where insured BPV owners are not obtaining authorization to operate from TSSA following periodic inspections as required under the regulation. The focus of this regulatory project is on the periodic inspection and operating authorization component of the regulation. TSSA's inspections of BPV manufacturers and BPV installation inspections are not within the scope of this project.

The ministry retained the services of a management consulting firm, to:

- complete a current state review of the boilers and pressure vessels regulatory model;
- work collaboratively with stakeholders to seek their input through interviews and a review of relevant documentation; and
- study models in other jurisdictions.

In August 2014, the consulting firm completed their report that contained regulatory options to resolve the non-compliance issue. The ministry and TSSA found these options to be too costly for business so the ministry and TSSA are proposing to formalize the long-standing practice of insurers issuing BPV owners a de-facto authorization.

By amending the BPV regulation so that BPV owners can have their devices authorized for use by their insurer or third-party inspection agency, there will be little impact on BPV owners. TSSA would oversee insurance and third-party inspection agencies to ensure that the periodic inspection and operating authorization processes meet specific standards. This oversight would come in the form of audits, attestations and reporting. The proposal also includes a number of new efficiencies and modest new revenue streams to address the long-standing BPV program structural deficit.

Appendix B: Draft Regulatory Proposal

**NOTE: This draft proposal is not current –
See the body of the report for the panel’s recommendations**

Draft Regulatory Proposal for Stakeholder Consultation as of January 15, 2016.

Boilers and Pressure Vessels

PROPOSAL OVERVIEW

The Ministry of Government and Consumer Services (MGCS) and the Technical Standards and Safety Authority (TSSA) are proposing to amend the Boilers and Pressure Vessels (BPV) regulation (O. Reg. 220/01) under the Technical Standards and Safety Act, 2000 (the Act). The proposed amendments are intended to enhance TSSA’s oversight of periodic inspection services provided by insurers¹¹. All other aspects of TSSA’s mandate, as established in the Act and regulation, will remain unchanged.

This proposal is comprised of five parts:

- 1) Insurers will be authorized to issue Certificates of Inspection.
- 2) Periodic inspection requirements for piping and fittings will be eliminated.
- 3) New reporting requirements to TSSA will be established for insurers.
- 4) TSSA’s oversight of insurers will be enhanced through new audit and attestation functions.
- 5) A new fee for BPV Certificates of Inspection and an authorization fee for insurers will be established to fund the BPV regulatory regime.

RATIONALE

The proposed amendments are meant to resolve long-standing operational challenges with the BPV regulation. The existing regulatory framework established by the BPV regulation, outlines periodic inspection requirements for all pressure-retaining equipment manufactured or used in

¹¹ Insurers will retain the ability to contract third-party inspection agencies to conduct inspections.

**NOTE: This draft proposal is not current –
See the body of the report for the panel’s recommendations**

Ontario (with some exceptions for certain equipment). For insured devices, which make up the vast majority of the BPV equipment, periodic inspections are conducted by insurers; the small population of uninsured devices are required to be inspected by TSSA. Owners of BPVs are required to ensure periodic inspections are conducted at the frequencies and standards set by the Code Adoption Document and ensuring corrective actions are taken on non-compliances identified by inspectors. The Statutory Director is responsible for ensuring effective oversight of insurers, including identifying any backlogs in periodic inspections and emerging safety risks in the sector and addressing them by issuing safety bulletins, Director’s Orders and recommending amendments to the Code Adoption Document.

Currently, the BPV regulation requires an insurer to issue an inspection report and a Record of Inspection to the Statutory Director once a periodic inspection is completed and confirms that the equipment can be used safely. On receipt of a Record of Inspection, the Statutory Director is required to issue a Certificate of Inspection to the owner/operator in order for BPVs to operate legally. In current practice, however, all parties have been treating Records of Inspection issued by insurers as Certificates of Inspection, effectively allowing insurers to issue their own Certificates of Inspection. This practice is a carry-over from the Boilers and Pressure Vessels Act that was repealed in 2001 and replaced with the current BPV regulation. As a result, TSSA’s direct regulatory oversight of most BPVs operating in Ontario is limited.

Inspectors working on behalf of insurers currently address safety issues identified during periodic inspections by issuing recommendations to owners to bring their device into compliance. Insurers have developed their own recommendations and time-to-comply requirements, raising concerns about inconsistency among insurers in the way non-compliances are addressed. Under the Act, however, only a TSSA inspector has the authority to shut down a device or issue a legally enforceable compliance order. In instances where imminent safety hazards are identified, insurers are required to contact TSSA so that TSSA can conduct an additional inspection to verify the hazard and issue a shutdown order. However, it is not known whether insurers consistently contact TSSA to follow up on imminent safety hazards.

Long-standing operational challenges with the BPV regulation have resulted in TSSA having limited direct information relating to the location, number and type of insured BPVs in operation. While proxy data has affirmed the overall state of safety in Ontario’s BPV sector, the lack of direct information has constrained TSSA’s ability to further assess the state of safety of the BPV sector and to make risk-informed safety decisions.

These operational challenges have also led to a significant and structural operating deficit in TSSA’s BPV Safety Program as the revenue stream under the current model is largely dependent on manufacturers funding all aspects of the regulatory regime, including engineering, inspections, standards and code development work, investigations, and prosecutions. Since TSSA is not issuing Certificates of Inspection, owner/operators are currently not contributing financially to support the regulatory regime beyond the inspection services that they may receive from TSSA. Insurers are also not financially contributing to TSSA to support the regulatory regime, nor would they be contributing even if the current regulation was operationalized according to the existing requirements.

**NOTE: This draft proposal is not current –
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PROPOSAL DETAILS

PART 1: Insurers will be authorized to issue Certificates of Inspection

This proposed amendment will authorize insurers to issue Certificates of Inspection following installation and subsequent periodic inspections of BPVs. Under the proposed amendment, the Certificate of Inspection would be issued by the qualified person conducting the periodic inspection. The frequency of periodic inspections will continue to be in accordance with the Code Adoption Document issued by TSSA.

To further improve the efficiency of the periodic inspection system, insurer inspectors, who are currently TSSA-certified, would have the authority to issue orders and shut down unsafe BPV devices. Currently, insurer inspectors rely on TSSA inspectors for this function.

PART 2: Periodic inspection requirements for piping and fittings will be eliminated

The current regulation would be amended to eliminate the reference to fittings and piping for periodic inspections and reflect current TSSA practices. It is also difficult to enforce given the large number of fittings and piping involved in any BPV set up and the substantial costs that would be associated with inspecting each fitting and piping system.

PART 3: New reporting requirements to TSSA will be established for insurers

TSSA would require insurers to collect and maintain information about the devices they inspect. Examples include:

- Manufacturer and serial number of device
- Canadian Registration Number (CRN)
- Type of building where device is located
- Date of last inspection of device
- Inspection reports for each device
- Non-compliance orders issued for device
- Number of devices insured by insurer
- Incident reports
- Contact information of inspectors
- Copy of certification of inspectors

TSSA will require insurers to attest that they are compliant to their legal inspection obligations and are accurately collecting and maintaining this information and will introduce an audit

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program to enhance oversight. Additionally, TSSA will also require this information from insurers and in order to conduct safety analysis. The format and frequency of these requests will be determined by TSSA in consultation with industry.

The requirements and standards described below seek to minimize administrative burden and potential information system enhancement costs to owner/operator, insurers, and TSSA.

Incident Reporting

- Reporting incidents as soon as they occur is essential to public safety. Incident information is required to support investigations and to develop remedial actions to prevent further risks to public safety.
- Under the current regulation, an owner/operator of a BPV must notify the Statutory Director immediately of an explosion, rupture, or incident that arises out of the operation of a BPV and that causes injury or death to a person or property damage. The owner is further required to provide the director with a full written report of the circumstances of the accident within 48 hours of the occurrence.
- Under the proposed framework, the requirement to report safety incidents or the unsafe operation of a BPV would be expanded to include insurers, inspectors working on behalf of insurers and any individual tasked with maintaining or operating the device. Insurers would additionally be required to provide information regarding the specific device(s) involved in the incident including information about its inspection history and outstanding non-compliances to the Director within a set period of time.

Periodic Reporting

- To verify that insurers are periodically inspecting BPVs as required and to assess safety across the BPV sector, TSSA will require insurers to regularly report on their periodic inspections, including: any periodic inspection backlogs, status of compliance orders issued, incident reporting and the inventory of BPVs they are responsible for inspecting.
- The form and frequency at which TSSA will require this information will take into account the time and effort required to compile information and will align with current reporting schedules to minimize administrative burden and avoid duplication of work. Insurers may be required to report information on a more frequent basis in the event of an incident or at the discretion of the Statutory Director in response to a safety concern.

For illustrative purposes, a high-level schedule of proposed reporting time and frequency is included in the table below. Following the table, scenarios are presented explaining the

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circumstances when reporting would be needed for specific devices as opposed to annual aggregate reports about a group of BPVs.

	Incident involving BPV		Periodic Reporting	Quality Audit
	For affected BPV	All BPVs*		
Device Information				
Manufacturer number	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Serial number	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
CRN	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Inspection Information				
Date of last inspection	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Compliance orders issued	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Outstanding orders	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Inspection reports	Within 48 hours of incident	n/a	n/a	1-3 years
Commercial Information				
Owner	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Address of device	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Type of building	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Current Insurer	Within 1 hour of incident	Within 48 hours of incident	Annually	1-3 years
Incidents and Near-Misses				
Report incident	Immediately	n/a	Annually	n/a
Written report of incident	Within 48 hours of incident	n/a	Annually	1-3 years
Inspector Information				
Inspector details	Within 1 hour of incident	Within 48 hours of incident	n/a	1-3 years
Date of certification	Within 1 hour of incident	Within 48 hours of incident	n/a	1-3 years
Current employer	Within 1 hour of incident	Within 48 hours of incident	n/a	1-3 years
*information as requested by TSSA or MGCS				

SCENARIO 1: BOILER EXPLOSION

Event: A boiler explodes and it is determined that this particular class of boiler has a design flaw that could affect multiple boilers across the province.

Response: TSSA quickly locates all boilers of that class and issues orders to the owner/operator for preventative maintenance or replacement. TSSA is able to respond to questions about the number and location of these boilers. TSSA is able to carry out these actions because the insurer with the affected BPV provided TSSA with the data listed in the table above within 1 hour of the incident. All insurers were then required to send the data listed in the table above about all BPVs within 48 hours of the incident.

SCENARIO 2: RISK PLANNING

Event: The Retirement Homes Regulatory Authority (RHRA) is updating their risk plans for retirement homes and they are looking for assistance from TSSA.

**NOTE: This draft proposal is not current –
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Response: TSSA cross-references the list of retirement homes provided by the RHRA and provides up-to-date BPV information for all of the residences. As an example, the information includes inspection history and device age. TSSA is able to provide this information based on information provided by insurers following a TSSA request.

PART 4: TSSA’s oversight of insurers will be enhanced through audit and attestation functions

Under this proposal, TSSA’s primary function with regard to periodic inspections will be to ensure oversight of insurers as the providers of periodic inspection services in Ontario.

TSSA’s oversight will be enhanced to ensure that periodic inspections are conducted at the frequency and quality mandated by the regulation and Code Adoption Document. Under this proposal, TSSA oversight will come in the form of issuing authorizations to insurers to conduct inspections. Audits, attestations, performance standards and reporting requirements will also be addressed in the regulation and Code Adoption Document.

Insurers will have to regularly provide attestations and periodically undergo audits to verify information and processes for authorizing, inspecting, and reporting on BPVs to TSSA. This section includes details on frequency, reporting timelines, and type of information to be requested by TSSA. Consequences to insurers for non-compliance are also described.

An audit and attestation program would assess whether:

- Periodic inspections are conducted at the frequency specified in the Code Adoption Document
- Inspections are completed to the standard set by Code Adoption Document
- Inspection information collected is accurate
- Owner/operators resolve non-compliances within the allowed time to comply that is identified during periodic inspections by insurer
- Reportable incidents are reported to TSSA within required time frames
- Inspectors working for insurers are properly trained and certified
- Insurers are keeping required information and documents in the format specified by TSSA
- Insurers can fulfill their reporting requirements as specified by TSSA
- Inventory of BPVs can be confirmed for reporting requirements

The scope and frequency of audit activities conducted by TSSA would be contingent on the outcome of insurer attestations and at the discretion of the Statutory Director in response to a safety concern, public complaint or to address systemic non-compliance issues.

**NOTE: This draft proposal is not current –
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As part of the audit program, a broad range of progressive sanctions will be developed – from more frequent audits to suspension or loss of authorization to conduct inspections. These sanctions would ensure the integrity of the regulatory regime.

Insurers would be required to pay for the audits on a cost-recovery basis. Audit costs would range anywhere from \$5,000 for targeted audits conducted by TSSA staff up to \$50,000 for comprehensive audits in limited circumstances conducted by third-party contractors assigned by TSSA. Other TSSA oversight services would be cost recovered via the proposed new authorization and Certificate of Inspection fees. At a mature state, the scope and frequency of audits would be dependent on previous audit results and/or the level of intervention required by TSSA to oversee the work conducted by insurers and their inspectors. An insurer that adheres to the set information requirements/performance standards and ensures that their inspectors conduct their inspections at the standards set by the Code Adoption Document would undergo less frequent audits, for example, once every three years, rather than annually. This would provide a significant financial incentive to comply with the regulatory requirements.

PART 5: A new fee for BPV Certificates of Inspection and an authorization fee for insurers will be established to fund the BPV regulatory regime

This proposal outlines a new revenue model that will ensure all stakeholders in the BPV sector contribute equitably to sustaining the regulatory regime.

The proposed revenue model consists of two new revenue streams:

- The first proposed revenue stream is an authorization fee charged by TSSA to insurers for issuing certificates of inspection and conducting periodic inspections. The authorization fee will be set by TSSA.
- The second proposed revenue stream is a fee charged by TSSA to insurers for each Certificate of Inspection issued following a periodic inspection. The cost burden of this fee is expected to be shared between insurers and the owner/operator.

The proposed revenue streams would recover approximately \$1 million, which represents the average annual BPV Safety Program budget deficit. Based on current estimates, the authorization fee charged to insurers would be approximately \$1000 and the fee charged to insurers for each Certificate of Inspection would be approximately \$15 per periodic inspection, which typically occurs once every three years.

The proposed revenue streams are predicated on a cost-recovery model and will be established once the proposal is finalized. The set fees will then be reviewed on a periodic basis as part of TSSA’s regular fee review process.

**NOTE: This draft proposal is not current –
See the body of the report for the panel’s recommendations**

NEXT STEPS

The BPV stakeholder round table will meet to discuss and shape this consultation proposal. There will be about five round table meetings held approximately every two weeks beginning in February 2016 and concluding in April 2016. The refined proposal will be used by the ministry as the basis for broader consultation with the public and industry stakeholders and to inform future government decision-making.

Round table members bring a variety of professional experience, technical expertise, and public safety backgrounds. These include insurers, BPV owners/operators, and manufacturers. Participation as a member of the round table requires a commitment to the broader public interest.

Appendix C: Round Table Approach

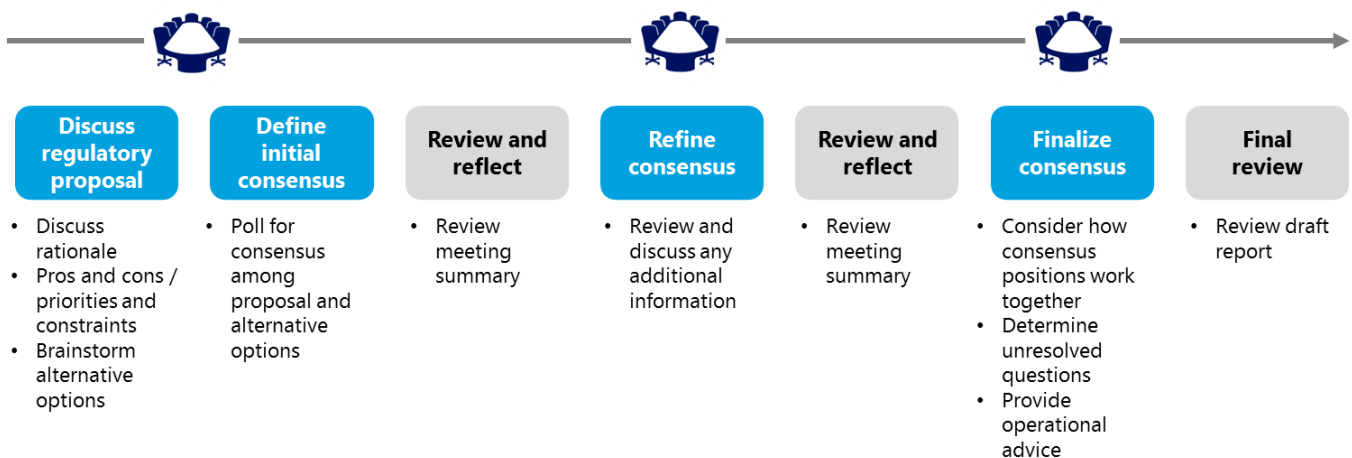
The round table panel process

The Ministry of Government and Consumer Services (MGCS) and Technical Standards & Safety Authority (TSSA) determined that amendments to the *Boilers and Pressures Vessels Regulation* may be required to address the operational challenges associated with the BPV Safety Program. From 2014 – 2015 research was undertaken and a proposal for a new regulatory framework was developed. The regulatory proposal aimed to resolve the challenges with the BPV Safety Program in a manner that would minimize the regulatory burden on industry. Under its Open Government initiative, which seeks to create a more open and transparent government for Ontarians, MGCS convened a panel of stakeholders to review and refine this proposal.

The round table panel was established by MGCS with the support of TSSA for a special, time-limited purpose: to apply the panel members’ sector experience to the review and refinement of a draft regulatory proposal to amend the *Boilers and Pressure Vessels Regulation* (O. Reg. 220/01). The panel was guided by a Terms of Reference, which detailed the scope and the roles and responsibilities of the panel as well as those organizations supporting the panel’s work (MGCS, TSSA, and Deloitte, who facilitated the panel meetings and drafted this report). The Terms of Reference, which can be found in Appendix A, included the requirement for panel members to consider the public interest in striving for consensus and making recommendations to government. Round table discussions were conducted in accordance to Chatham House Rule; participant contributions were non-attributable.

The panel met five times from mid-February – April 2016. In advance of the first meeting, panel members were provided with the regulatory proposal and an early draft of what the new regulation would look like should the proposal be adopted. Before each meeting, panel members were provided with the meeting agenda, and, in some cases, with relevant supporting materials. Subsequent to each meeting, panel members were provided with a summary of the discussion. The meeting summaries were subject to panel member feedback and review, and were finalized accordingly.

Figure 1: Process for Developing and Finalizing Panel Consensus Position on Each Topic



The diagram above illustrates the high-level process through which the panel developed its consensus positions on each of the five topics. The panel began its work on each topic by reviewing and discussing the regulatory proposal made by MGCS and TSSA. The panel then developed alternative options, and an informal poll was taken to understand which option(s) received the greatest support. Critically, these options were reviewed and refined over the course of multiple meetings. This iterative process allowed panel members to reflect on the topic and regulatory options, and to come prepared to subsequent meetings with their concerns, priorities and considerations.

The notion of **consensus** was at the heart of the panel process and this report. In this regulatory review process, consensus was understood as a position that all panel members could and would be willing to support. In some cases, one or more panel members preferred an alternative option. However, in each of these cases the panel members were willing to support the panel's consensus position.

The BPV round table panel membership

The panel included representation from four key sets of stakeholders: BPV insurers, BPV owners / operators, BPV manufacturers and third-party inspection agencies. The membership of the panel was designed to provide a balance and diversity of expertise, experience and viewpoints.

The Ministry also retained Deloitte Inc. ("Deloitte") to organize and facilitate the round table meetings and to prepare this report on behalf of the panel. The round table panel included 13 members from a cross-section of the four key sets of stakeholders.

Table 8: BPV Regulatory Review Panel Members

Panel Member	Organization	Sub-Group
David Stek	Ontario Petrochemical Inspectors Association	BPV owner / operator
Fred Afshar	B&M Risk Advice	Third-party inspection agency
Glen Crawford	Organization of Canadian Nuclear Industries (OCI)	BPV manufacturer
Joe Adams	SLEEGERS Engineered Products Inc.	BPV manufacturer
Jonathan Ashall	Insurance Brokers Association of Ontario	BPV insurer (broker)
Kavita Ramcharan	Insurance Bureau of Canada	BPV insurer
Nick Cinotti	Intact Assurance	BPV insurer
Paul Sterescu	The Boiler Inspection and Insurance Company of Canada and the Canadian Boiler and Machinery Underwriters' Association	BPV insurer

Panel Member	Organization	Sub-Group
Ralf Klopf	Toronto District School Board, Institute of Power Engineers	BPV owner / operator
Robert Weinberg	Association of Condominium Managers of Ontario	BPV owner / operator
Ryan Jones	Royal and Sun Alliance Insurance Company of Canada	BPV insurer
Sidney Chelsky	Ontario Fabricare Association	BPV owner / operator
Stephen Lawrence	Boiler and Pressure Vessel Advisory Council	BPV owner / operator
Steve Tillie	GTT OnSet	Third-party inspection agency

Roundtable limitations

The Terms of Reference for the BPV Regulatory Review delineated the scope of the round table panel's work, focusing on periodic inspection topics including authorization, data and reporting, oversight and fees.

While the core element of the panel process was to solicit feedback on the five topics of the regulatory proposal (including consideration of alternative options that could better achieve the objectives of the review), recommendations to MGCS and TSSA on successful implementation and operationalization of regulatory changes were also welcomed.

From the outset, panel members indicated that there were important topics outside the formal scope of the process. These topics included shop inspections, installation (first) inspections, limitations in the role that can be played by third-party inspection agencies, how to get more owners aware of the requirements for periodic inspection and certain aspects of the Delegated Administrative Authority model itself¹². While panel members were provided with an opportunity to flag these issues and articulate their concerns, a full discussion of the issues will need to come outside of this regulatory review process.

Panel members also expressed concerns about the round table process itself. Many panel members expressed a desire for additional information to inform their discussions. For example,

¹² TSSA is a Delegated Administrative Authority (DAA). A DAA is a self-funded, not-for-profit entity mandated to enforce legislated requirements or deliver services on behalf of the government. DAAs operate independently, but are overseen and is accountable to government (in this case, the Ministry of Government and Consumer Services). Source: <https://www.tssa.org/regulated/about/evolutionOfTssa.aspx>

they wanted to better understand the cost implications of the regulatory options discussed and wanted more detail on how the regulatory options would be implemented. Some suggested that more time could have been allowed for between panel meetings in order to provide this additional information. The panel was concerned that MGCS consulted with them too late in the process, expressing a desire to help identify the core issues that need to be addressed, instead of reviewing and responding to a regulatory proposal.

Notwithstanding the limitations to scope and the process, all panel members indicated that there was real and meaningful value in the panel process, and that the advice and guidance that they have provided in this report should be strongly considered by government and other stakeholders. The panel thanked MGCS for inviting them to participate in the process and articulated strong support for the Open Government approach to making regulatory policy.

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