

# SAFETY ON TRACK

2018 ANNUAL REPORT



**TECHNICAL  
SAFETY BC**

Safe technical systems. Everywhere.



BUILDING STRONG CONNECTIONS

**IT STARTS HERE**

## TABLE OF CONTENTS

WHO WE ARE AND WHAT WE DO	03
MESSAGE FROM THE CHAIR OF THE BOARD	04
MESSAGE FROM THE PRESIDENT & CHIEF EXECUTIVE OFFICER	05
REPORT ON PERFORMANCE: Overview	06
REPORT ON PERFORMANCE: Technical Safety Risk	08
REPORT ON PERFORMANCE: Advancing the Safety System	10
REPORT ON PERFORMANCE: Province-wide Technical Safety Insight	12
REPORT ON PERFORMANCE: Organizational culture projects and initiatives	14
CORPORATE GOVERNANCE	16
MANAGEMENT DISCUSSION AND ANALYSIS	38
FINANCIAL STATEMENTS	50
GLOSSARY	68

## SAFE TECHNICAL SYSTEMS. EVERYWHERE.

WE BUILD YOUR CONFIDENCE IN SAFETY SYSTEMS FOR LIFE – THROUGH A FOCUS ON RISK AND SUPPORT FOR INNOVATION.

### WHO WE ARE AND WHAT WE

We are an independent, self-funded organization mandated to oversee the safe installation and operation of technical systems and equipment. In addition to issuing permits, licenses, and certificates, we work with industry to reduce safety risks through assessment, research, education and outreach, and enforcement.

### WHAT WE DO

We deliver safety services across the following technologies in the province:

- Electrical equipment and systems
- Boilers, pressure vessels and refrigeration systems
- Natural gas and propane appliances and systems, including hydrogen
- Elevating devices, such as elevators and escalators
- Railways, including commuter rail
- Passenger ropeways, such as aerial trams and ski lifts
- Amusement devices
- Complex and integrated technical systems involving multiple technologies.

### OUR SERVICES

- Assessing technical work and equipment, including collecting information through physical assessment, incident investigation and registering new equipment and designs.
- Certifying individuals and licensing contractors and operators to perform regulated work.
- Supporting clients in the development of alternative safety approaches, and auditing their safety management plans or equivalent standard approaches.
- Educating and sharing technical systems safety information with our clients and the broader public to better control risks.
- Taking enforcement actions that promote an equitable safety system where all participants are compliant with regulations.
- Conducting research, including contributing to provincial and national safety code development and updating regulations for the technologies we serve.

### OUR FRAMEWORK

We operate within a legislative and regulatory framework that includes:

- *Safety Authority Act*
- *Safety Standards Act and Regulations*
- *Railway Safety Act and Regulations*
- *Freedom of Information and Protection of Privacy Act*
- *Workers Compensation Act*
- *Ombudsperson Act*
- *Offence Act.*



“IN ADDITION TO IMPROVING VIRTUALLY ALL ASPECTS OF ITS OPERATION, THE ORGANIZATION DELIVERED INNOVATIONS IN RISK MANAGEMENT, MACHINE LEARNING, AND DATA SHARING”

## MESSAGE FROM THE CHAIR OF THE BOARD

On behalf of the Board of Directors, I'm pleased to confirm that Technical Safety BC continued building participation and confidence in safe technical systems across BC throughout 2018.

In addition to improving virtually all aspects of its operation, the organization delivered innovations in risk management, machine learning, and data sharing. I congratulate the Province of BC for making the highly-anticipated changes to the *Safety Standards Act* in fall 2018, which will positively impact the safety system in years to come.

This year, Technical Safety BC signed new Memoranda of Understanding with the BC Utilities Commission and several cities in Metro Vancouver, which will enable Technical Safety BC to share knowledge and insights, and build strong connections across the safety system in service to clients and the public.

The organization's performance in 2018 reflects a year where significant investments were made to reinforce its exceptional culture. In 2018, Technical Safety BC improved client-facing services, enhanced responsiveness to high risk events, and increased the number of technical safety system insights shared. Together, all of which had the end result of improving connection and engagement with the safety system.

I would like to welcome our two newest board members Nancy Olewiler and David Guscott, and extend my gratitude to retiring directors Hugh Gordon and Alison Narod for their exemplary service to public safety in British Columbia.

Finally, I remain extremely proud of the organizational response to the tragic Fernie Memorial Arena incident and the wide sharing of the resulting investigation report and recommendations, which catalyzed needed investments into recreational facilities and saw worldwide media coverage, with 67 countries reporting on the incident. By sharing this information, we are encouraging the community of ice rink owners, operators, and refrigeration contractors to gain a better understanding of the hazards and to deliver robust maintenance programs and exceptional aging equipment management. Safety is a shared responsibility. Together, we can prevent a similar tragedy from ever happening again.

**George Abbott**  
Chair of the Board

“THROUGHOUT 2018 WE WORKED TO MAKE SURE OUR CLIENTS COULD CONNECT WITH US IN NEWER AND EASIER WAYS”



## MESSAGE FROM THE PRESIDENT & CHIEF EXECUTIVE OFFICER

Everything we do has, at its core, the safety of the public in mind.

It doesn't come as a surprise then, that putting people at the center of our decision making means that our clients' needs and our employees' talents are a focus of our annual business plans.

Throughout 2018 we worked to make sure our clients could connect with us in newer and easier ways, whether that was making improvements to our online mobile applications, or improving connections between clients and our valued safety officers. We also created new education materials, with an emphasis on emerging and known hazards, including ammonia refrigeration, escalator brake maintenance, and large electrical services.

Technical Safety BC continues to believe that education is the best path towards improved safety. And while compliance and enforcement activities significantly increased in 2018, we know that the contractor community is both responsive and deeply concerned about doing good work, and doing it safely.

With data being acknowledged as the currency of the future, the insights we gain from analytics are being passed along to safety system participants. In 2018 this meant we found the highest number of hazards in the province's history, resulting in the

greatest increase in safety actions taken to resolve those hazards. Our data sharing agreements and new techniques in machine learning are investments that are making the public safer.

Finally, it has never been more important to remind owners and operators of their responsibility to maintain their equipment, and to continue to invest in a modern systems-based approach to their infrastructure. As safety is a shared responsibility we will continue to emphasize that regulated equipment doesn't simply stop working if it's not maintained – it can fail, and fail catastrophically – as our incident investigation into the Fernie Memorial Arena tragedy showed.

As we reflect on the milestones set out in our original 10-Year Strategy, much has been accomplished. We feel confident in establishing a new 10-year outlook where we commit to being an organization that is a model of the integration of technology and humanity. We will continue to put people at the centre of everything we do, to deliver *Safe technical systems. Everywhere.*

**Catherine Roome**  
President & Chief Executive Officer





OVERVIEW

# REPORT ON PERFORMANCE

THIS SECTION FOCUSES ON THE PROGRESS WE'VE MADE IN ACHIEVING THE MILESTONES OUTLINED IN OUR 10 YEAR STRATEGY – AND THE VALUE FOR OUR CLIENTS AND STAKEHOLDERS.



“WE AIM TO DELIVER A CONSISTENT LEVEL OF OVERSIGHT FOR ALL OF THE TECHNICAL SYSTEMS AND EQUIPMENT WITHIN OUR MANDATE, TO HELP REALIZE OUR CORPORATE VISION OF *SAFE TECHNICAL SYSTEMS. EVERYWHERE.* FOR THE BENEFIT OF BRITISH COLUMBIANS”

– Derek Patterson, Vice President, Regulatory Leadership & Corporate Secretary

2018 was the sixth year in our 10-Year Strategy and a significant one in terms of our progress towards achieving the milestones outlined in that plan. As part of our effort to be connected, clear, and innovative, we created value for clients and stakeholders in several ways. For example, we:

- Identified causal factors leading to ammonia release, carbon monoxide exposure, escalator brake failure, and electrical shock through the development of [fault trees](#). We also implemented tactics to address these factors.
- Used machine-assisted insights to deliver high value safety products, such as education activities (Tech Talks), hazard elimination, and incident investigations in order to support better-informed decision-making among clients and the public, and increase the effectiveness of tools used to predict outcomes.
- Identified opportunities for safety upgrading and time and cost efficiencies through the execution of a continuous improvement process that positively impacted clients and employees.
- Enhanced systems for tracking and following up on key safety system records such as aging non-compliances, accounts receivable, and expired permits, while increasing the number of high volume services delivered online.
- Formalized strategic relationships and [shared data](#) with local governments administering portions of the *Safety Standards Act* to gain greater insight into technical safety across British Columbia.
- Expanded Technical Safety BC’s jurisdiction by obtaining authority to administer the *Safety Standards Act* in the electrical and gas technologies on [Port of Vancouver](#) lands within the City of Vancouver.
- Launched a review and consultation process towards a modernized safety oversight program of Amusement Devices in response to emerging risks such as [trampoline parks](#).
- Began developing processes to administer a new class of contractor license for pressure welders, which was introduced through regulation in 2018.
- Released the [Ferne Memorial Arena incident investigation report and recommendations](#), which addressed the tragic incident where three people lost their lives and provided information on how ammonia facility owners and operators can raise safety standards in their facilities.

More specific details about the activities we undertook in 2018 are available in the following Report on Performance pages.

Our contributions to the safety system can also be found in the Safety Data section. Further, our [2019–2021 Business Plan: Inspiring Safety Innovation](#) and [10-Year Strategy](#) provide additional details that supplement the information found in this publication.

## REPORT ON PERFORMANCE

# TECHNICAL SAFETY RISK



### DETECTING AND MITIGATING TECHNICAL SAFETY RISKS IN BRITISH COLUMBIA

A focus on high [hazards](#) and [high technical safety risks](#) reduces safety hazards and [risk](#) exposures in the province. This year we:

- Shifted the emphasis within our operations from a focus on quantity (i.e., the number of [assessments](#)) to a focus on risk (i.e., identifying, communicating, and addressing hazards). The number of hazards found significantly increased and we exceeded our stretch target for publishing and closing hazards.
- Updated our safety system risk profile, including the creation of new [fault trees](#), and applied a new risk matrix for assessment. We also developed [risk treatment plans](#) for ammonia release, carbon monoxide exposure, and escalator brake failure.
- Pioneered a process to administer power engineering credentials from outside Canada, enhancing labour mobility and providing opportunities for internationally-trained power engineers to work in BC.

“WE ARE KEENLY FOCUSED ON BUILDING AND MAINTAINING THE MOST EFFECTIVE PRESENCE POSSIBLE – ONE THAT PREVENTS INCIDENTS BY LEARNING FROM THE DISCOVERY OF SAFETY HAZARDS. THIS GOAL IS LESS ABOUT THE AMOUNT OF PRESENCE BUT, RATHER ABOUT WHERE AND WHEN WE VISIT SITES, WHAT WE LOOK FOR, AND HOW WE USE SCIENCE AND TECHNOLOGY TO UNDERSTAND AND TRANSLATE RISK KNOWLEDGE”

– Phil Gothe, Vice President, Safety System Operations



## MEASURING PERFORMANCE

THEME	TARGETS AND MEASURES	RESULT
Scanning and analysis of risks	<p>Increase percentage of observed four and five (on a five-point scale) as-found hazards associated with high technical safety risks.</p> <ul style="list-style-type: none"> <li>• Improve process for monitoring and identifying technical safety risks.</li> <li>• Update emerging risks register.</li> </ul>	<p>The introduction of machine learning into <a href="#">Structured Resource Allocation Program</a>, combined with improved monitoring and publishing processes, resulted in a 124% increase in level four and five <a href="#">as-found hazards</a> identified, addressed, and published in Q4 2018 compared to Q4 2017.</p> <p>Updated emerging risks in risk register.</p>
Defining and documenting risks	<p>Improve quality of key data sets for high technical safety risks, and publish technical safety risk overview.</p> <ul style="list-style-type: none"> <li>• Review risk assessment criteria and establish assessment standards.</li> <li>• Establish data governance on key data sets for technical safety risks.</li> </ul>	<p>An internal summary report was created on data quality criteria, including a summary of the data quality pilot and quality guidance. This report includes recommendations for specific quality areas and for adoption of an enterprise quality framework.</p> <p>Quality criteria defined for <a href="#">risk treatment plans</a> and a drill-down process map were created to provide workflow and guidance for the Safety System Risk Management Program.</p>
Reduction of high technical safety risks	<p>Increase number of risk treatment plans for active and emerging risks.</p> <ul style="list-style-type: none"> <li>• Complete risk analysis for high technical safety risks.</li> <li>• Update risk treatment plans and implement two plans that reduce risk.</li> <li>• Provide information to engage and educate clients and the public in addressing high technical safety risks.</li> </ul>	<p><a href="#">Developed fault trees and accompanying studies</a> that identified causal factors for ammonia release, carbon monoxide exposure, escalator brake failure, and electrical shock.</p> <p>Delivered three high-hazard technical safety <a href="#">risk treatment plans</a> – ammonia release, carbon monoxide exposure, and escalator brake failure.</p>

## REPORT ON PERFORMANCE

# ADVANCING THE SAFETY SYSTEM



### USING DIGITALIZATION AND MACHINE-ASSISTED ASSESSMENT TO ENABLE INCREASED EMPLOYEE FOCUS ON HIGH VALUE SAFETY PRODUCTS AND SERVICES FOR CLIENTS AND THE PUBLIC

The use of advanced analytics and business intelligence improve safety in BC as they make it easier for clients to manage technical safety and allow our employees to focus on work that provides the most value and has the greatest impact on safety. This year we:

- Built a system that will provide clients with more visibility regarding their non-compliances, allowing them to easily report when non-compliances are resolved and request due date extensions online. This system will be rolled out in 2019.
- Implemented the [Structured Resource Allocation Program](#) that includes machine learning [algorithms](#). These algorithms predict where hazards are most likely to exist within British Columbia, which helps our safety officers focus on where they can make the biggest safety impact. As a result of this work, the predictive power of the algorithms increased by 77% for Electrical and by 61% for Gas installation work.
- Generated safety insights five to 10 times quicker than our conventional approach using statistical sampling plans. These enable safety programs to be developed much faster, therefore reducing potential harm. In 2018, we deployed this method in the Refrigeration; Electrical; Gas; and Elevating Devices technologies.
- Introduced a comprehensive data governance framework that will help to better publish, share, and manage data. This also improves how we measure and communicate facts with our stakeholders.
- Implemented a new certification exam marking system that decreased the turnaround time for clients to receive exam results to an average of two business days from a previous average of five weeks.
- Enhanced online services to support plant registration, power engineer certification renewal, Electrical Field Safety Representative certification renewal, Electric Vehicle Energy Management System variances, and 2019 fee changes.
- Improved tracking and management of incoming tasks through the implementation of a single intake queue for 95% of electronic client interactions.

“EVERY TEAM IN THIS BUSINESS IS USING DATA ON A DAY-TO-DAY BASIS TO MAKE SAFETY DECISIONS, MAKING US A FACT-BASED, LEARNING ORGANIZATION. WE CAN FIGURE OUT WHAT WORKS AND WHAT DOESN'T, PROMOTING INNOVATION AND OPTIMIZATION, AND ENABLING US TO MAKE MORE INFORMED DECISIONS”

– Ab van Poortvliet, Vice President, Data Analytics & Decision Science

## MEASURING PERFORMANCE

THEME	TARGETS AND MEASURES	RESULT
Digitalization	<p>Increase percentage of services delivered through online channels, streamline processes and digital tools to enable employee efficiency and improved client service.</p> <ul style="list-style-type: none"> <li>• Implement system improvements to expedite tracking and follow-up on key safety system records.</li> <li>• Bring online capabilities to high volume unit-based technologies.</li> <li>• Consolidate legacy IT systems for better service efficiencies.</li> </ul>	<p>Delivered some of Elevating Devices' high volume services through online services.</p> <p>Enhanced our online services to increase visibility of key safety system records, including aged non-compliances, expired/aged permits, and aged accounts receivables.</p> <p>Implemented a 'detect and control' system to find overdue transactions and notify <a href="#">duty holders</a> to take action.</p> <p>Created a technical plan to separate key data sets from IT systems into an integration layer. This will allow for underlying legacy IT systems to be replaced in coming years with limited impact to users.</p>
Participation	<p>Increase number of participants in the safety system.</p> <ul style="list-style-type: none"> <li>• Identify under-permitted client segments.</li> <li>• Publish first annual Compliance and Enforcement Report.</li> </ul>	<p>Identified unlicensed contractors performing regulated work in various technologies through data analysis and targeted <a href="#">investigations</a>.</p> <p>Made key deterrence messages and case studies available to safety system participants to influence positive behaviour change.</p> <p>Published the external <a href="#">2017 Compliance and Enforcement Report</a>.</p>
Focus on risk	<p>Increase execution on system-generated priorities, and increased predictive capability of our Structured Resource Allocation program.</p> <ul style="list-style-type: none"> <li>• Review decision rules and assessment policies.</li> <li>• Apply random sampling to enhance predictive capability.</li> <li>• Implement Data Warehouse 2.0 to access trusted information.</li> </ul>	<p>Reviewed decision rules and assessment policies for Electrical; Gas; Elevating Devices; and Boilers, Pressure Vessels and Refrigeration technologies. A machine learning <a href="#">algorithm</a> incorporated into Electrical and Gas installation assessment resulted in a predictability increase of 77% for Electrical installation and 61% for Gas in Q3-Q4 2017 compared to Q3-Q4 2018. This means we can focus on work that provides the most value and has the greatest impact on safety.</p> <p>Four random sampling plans were designed and implemented, generating valuable learnings and data in the following areas:</p> <ul style="list-style-type: none"> <li>• Elevating – Age of equipment for escalators in shopping malls</li> <li>• Refrigeration – Ammonia systems in food manufacturing facilities</li> <li>• Gas – Filling stations / vehicle conversion facilities</li> <li>• Electrical – Service equipment assessment.</li> </ul> <p>This increases our ability to generate safety insights five to 10 times faster, enabling wider safety <a href="#">interventions</a> to be defined faster, therefore reducing potential harm.</p> <p>Implemented Data Warehouse 2.0 supported by a new visualization tool that covers permits, assessments, licenses, certificates, all financial transactions, and clients.</p>

# REPORT ON PERFORMANCE

## PROVINCE-WIDE TECHNICAL SAFETY INSIGHT



### TAKING AN INTEGRATED APPROACH TO TECHNICAL SAFETY IN BC

Providing province-wide technical safety insight creates partnerships to develop a shared understanding of safety oversight. This also builds public and stakeholder confidence in the safety system throughout BC. This year we:

- Formalized strategic relationships and [shared data](#) with local governments administering portions of the *Safety Standards Act* to gain greater insight into technical safety across British Columbia.
- Supported significant successful amendments to the *Safety Standards Act* that modernize the administration of technical safety in the province in partnership with Ministry of Municipal Affairs and Housing.
- Expanded Technical Safety BC's jurisdiction with the addition of electrical and gas oversight on [Port of Vancouver](#) lands within the limits of the City of Vancouver. This is in addition to Technical Safety BC's pre-existing authority on Port of Vancouver lands over other technologies within our mandate. This means [asset owners](#) within Port of Vancouver lands will now receive a consistent safety oversight experience.
- Published 50 [incident investigation reports](#), including one on Fernie Memorial Arena – our most complex investigation to date.
- Identified twice the volume of unpermitted work compared to 2016 and doubled the compliance orders, monetary penalties, and discipline orders issued over last year.
- Conducted physical (i.e. in-person) assessment of ammonia systems at 175 arenas across British Columbia.
- Developed education programs to share safety knowledge with certified individuals and licensed contractors in the Elevating Devices; and Boilers, Pressure Vessels, and Refrigeration industries.
- Published Technical Safety BC's first annual [Compliance & Enforcement Report](#), which speaks to our efforts to identify unpermitted work and to ensure a level playing field for licensed contractors and [asset owners](#).
- Published the [State of Safety 2017](#) report as a digital microsite, which incorporated open data.
- Disseminated widely the [investigation](#) results from the ammonia release incident at Fernie Memorial Arena. Our efforts included a press conference organized by Technical Safety BC and culminated in news coverage in 67 countries, 350 news stories, and 5,000 downloads of the report from our website.
- Launched a [blog](#) on our website that has increased page views by 37% while serving as a content hub for the public and our clients.
- Increased awareness and shared safety insights through province-wide safety campaigns, including: advertisements, partnerships, technical client newsletters, and social media channels. Our engagement across all our social media channels increased, [technical newsletter](#) open and click-through rates are well above industry average, and approximately 60% of our key stakeholder groups actively participated or championed a strategic initiative throughout the year.
- Built industry-wide support for a behaviour research study into electric shock through extensive outreach and engagement. Specifically, we held focus groups attended by more than 40 individuals and received survey feedback from more than 1,000 individuals representing electrical contractors, field safety representatives, journey people, and apprentices across the province.

## MEASURING PERFORMANCE

THEME	TARGETS AND MEASURES	RESULT
Partnerships (First Nations, federal government, local governments, utilities, and other agencies and service providers)	<p>Develop data sharing agreements or partnerships with municipalities and other safety system participants.</p> <ul style="list-style-type: none"> <li>• Establish plan to work with federal site owners on equipment oversight.</li> <li>• Develop profiles and build safety awareness with local governments.</li> </ul>	<p>Federal sites onboarding plan developed, and resources approved to support onboarding federal sites over 2019–2021.</p> <p>Pursued agreements with First Nations, federal government, local governments, utilities, and other agencies and service providers.</p> <p>Developed two-way data sharing agreements reached with WorkSafeBC and Electrical Safety Authority of Ontario.</p>
Exchange of data	<p>Create data sharing agreements between Technical Safety BC and other safety system participants for the benefit of the public.</p> <ul style="list-style-type: none"> <li>• Define and implement principles and processes for secure data exchange.</li> <li>• Share data related to compliance and enforcement.</li> </ul>	<p>Met with numerous entities for the purpose of first contact, follow-up, and to pursue two-way data sharing agreements, ideally in an automated fashion using an <a href="#">Application Programming Interface (API)</a>.</p> <p>Created a secure API to send and receive data with municipalities. Also developed a new website using this API for municipalities to validate a contractor license and upload permit information in .csv format. The new website is only available to the municipalities (not the general public).</p> <p>Published the external <a href="#">2017 Compliance and Enforcement Report</a>.</p>
Insight generation and reporting	<p>Incorporate data from external sources into our analysis and insights to provide comprehensive reporting to the public or government.</p> <ul style="list-style-type: none"> <li>• Develop safety insight coverage map.</li> <li>• Develop ability to analyze and use data from external sources.</li> <li>• Analyze external usage of Technical Safety BC data.</li> </ul>	<p>Used our new visualization capabilities to display our transactions around the province on an interactive map, which allows us to better analyze our service levels across the province.</p> <p>Collected, analyzed, and published test brine results to illustrate a pattern of refrigeration system failure.</p> <p>Incorporated analytics into release of information related to <a href="#">Fernie Memorial Arena investigation</a>. This illustrated how impactful our work is and generated ideas for how we can do better.</p>

## REPORT ON PERFORMANCE

# ORGANIZATIONAL CULTURE PROJECTS AND INITIATIVES


In addition to the 2018 strategic priorities, we accomplished a number of corporate projects and initiatives. We:

- Invested in leadership development by delivering two cohorts of Technical Safety BC's leadership development program: Leadership. Everywhere. This training was attended by more than 30 leaders from various parts of our organization.
- Invested in employee safety by delivering a number of occupational health and safety programs including: Working Alone, Fall Prevention, Violence Prevention in the Workplace, and Respiratory Protection.
- Invested in employee wellness by delivering the "Road to Mental Readiness" training from the Mental Health Commission of Canada to over 95% of our employees, hosted Wellness Fairs in all regions, and implemented a new Wellness Points Program for all employees.
- Rolled out the Goals, Recognition, and Opportunities (GRO) online talent management system to all employees.
- Developed a foundational Equality, Diversity, and Inclusion Framework that supports all employees to bring their whole, authentic selves to work each and every day.
- Delivered Indigenous Awareness Training as part of our commitment to reconciliation and enhanced Indigenous relations.
- Started shaping our 'Engineering Vision', which involves connecting our clients with the expertise of our engineering team so they can get the engineering support and advice they need.
- Moved the New Westminster and Coquitlam offices to a new location in East Vancouver. This new, purpose-built corporate space optimizes employee engagement and increases collaboration, learning, and adaptability for the benefit of our employees and clients. In the first six months, we hosted 48 events attended by more than 700 clients and stakeholders. As well, we held two corporate events which delivered industry and technical information to more than 400 Technical Safety BC employees across the province.

“WE BELIEVE THAT DEVELOPING THE STRENGTHS AND THE SKILLS OF EVERY EMPLOYEE IS KEY TO OUR ORGANIZATION'S SUCCESS. IT IS ESSENTIAL THAT OUR TEAMS REFLECT BOTH THE COMMUNITIES AND POPULATIONS THEY SERVE AND WE WORK TO DEMONSTRATE EQUITY, DIVERSITY, AND INCLUSION IN ALL OF OUR PEOPLE PRACTICES. AT THE END OF THE DAY, OUR EMPLOYEES ARE WHAT MAKE TECHNICAL SAFETY BC GREAT”

– Kate Parker, Vice President, People





“WE HAVE SO MANY  
IMPORTANT STORIES TO  
TELL... STORIES THAT  
CAN HELP PEOPLE MAKE  
BETTER DECISIONS AND  
LIVE SAFER LIVES”

– Kate Baillie, Vice President,  
Communications & Content Strategy

A man and a woman are seated at a table, looking at documents. The man is on the left, wearing a light blue shirt, and the woman is on the right, wearing a striped shirt. They are both looking down at the papers on the table. The background is a blurred office setting with a whiteboard that has some text on it. The text on the whiteboard includes "Lead", "Design", "Build", and "Relationships".

## **CORPORATE GOVERNANCE**

## GOVERNANCE

The *Safety Authority Act* created BC Safety Authority (now operating as Technical Safety BC) and contains the basic rules by which the organization is governed. The Act is supplemented by a Board Governance Manual, Administrative Agreements with the Province of BC, and Protocol Agreements.

## THE ROLE OF THE BOARD

The members of the Board of Directors are the stewards of Technical Safety BC. They have the fiduciary responsibility of overseeing the conduct of the business and ensuring that all major issues affecting the business and affairs of the organization are given proper consideration. In performing its functions, the Board also considers the legitimate interests of industry, communities, and government.

## BASIC QUALIFICATIONS

Members of Technical Safety BC's Board must meet the basic requirements established in the *Safety Authority Act*. As well, all appointments to Technical Safety BC's Board must comply with the provisions related to qualifications for directors and conflicts contained in both the *Safety Authority Act* and in [Technical Safety BC's Code of Ethical Conduct](#).

## DIRECTOR SELECTION

The *Safety Authority Act* states that the Board will consist of at least nine, but no more than 15, members. The Minister may appoint up to three directors. The remaining directors are appointed by the sitting directors. Non-government candidates for the Board are screened and shortlisted by a nominating committee based on the knowledge, skills, and abilities of the candidates. The directors make final selections from a list of suitable candidates provided by the nominating committee.

As of December 31, 2018, the Board consisted of 11 members, three of whom were appointed by the Minister.

## COMMITTEES OF THE BOARD

The 2018 committee structure included the:

- Finance and Audit Committee
- Governance and Human Resources Committee<sup>1</sup>
- Strategic Advisory Committee.

Each committee operates according to a Board-approved mandate outlining its duties and responsibilities. When required, these committees make recommendations to the Board for approval.

### THE FINANCE AND AUDIT COMMITTEE

The Finance and Audit Committee assists the Board in fulfilling its oversight responsibilities relating to Technical Safety BC's financial reporting, accounting systems, budgets, internal controls, and audit process. The Chair of the Finance and Audit Committee is required to be a financial expert. The Chair must:

- understand accounting standards for not-for-profit organizations;
- be experienced in preparing or auditing financial statements of comparable companies;
- have experience accounting for estimates, accruals, and reserves;
- understand internal accounting controls; and
- understand the functions of an audit committee.

Over the past year, the Finance and Audit Committee, in accordance with its mandate:

- provided oversight to management's financial risk management policies and procedures, including the review of the Investment Policy, Investment Manager, and Asset Capitalization Policy;
- provided oversight to management's internal financial controls framework;
- reviewed the 2017 financial statements, notes to the financial statements and Management Discussion and Analysis with management and the external auditors;
- reviewed and approved the external auditor's plan to audit the 2018 annual financial statements;
- reviewed and approved the internal auditor's annual audit plan, audit charter, and terms of reference and reviewed regular reports by internal auditors on the audits performed while monitoring management's responses;
- reviewed and approved the 2018–2019 insurance coverage and renewal;
- reviewed and approved fees for 2018 and 2019;
- reviewed Technical Safety BC's investment portfolio and reserve requirements;
- reviewed directors' fees and expenses for 2018; and
- reviewed and evaluated the performance of the Internal Auditor.

<sup>1</sup> The Governance and Human Resources Committee also serves as the Nominating Committee.

## GOVERNANCE AND HUMAN RESOURCES COMMITTEE

The Governance and Human Resources Committee assists the Board in oversight responsibilities relating to Technical Safety BC's governance, compensation, and human resource policies and strategies. This committee also serves as the nominating committee.

Over the past year, the Governance and Human Resources Committee, in accordance with its mandate:

- acted as the Nominating Committee, recommending to the Board the appointment of two new Board members (term commenced in April 2018) as well as the re-appointment of one Board member for an additional three-year term;
- provided oversight to the Board orientation process;
- approved the audited corporate results for the 2017 variable incentive plan (for excluded employees);
- approved the 2018 variable incentive plan (for excluded employees) measures and targets;
- reviewed the annual conflict of interest declarations of directors and officers;
- conducted the annual review of Technical Safety BC's governance practices and made recommendations to the Board to enhance committee mandates, governance structure, and the Board Chair skills matrix;
- reviewed and recommended performance plans for the President and Chief Executive Officer and the Corporate Secretary and evaluated the performance of the President and Chief Executive Officer and the Corporate Secretary;
- reviewed and provided oversight on director, executive, and excluded employee compensation trends;
- provided oversight, approved, and recommended to the Board the publication of enforcement actions and investigation findings and other regulatory actions including identification of involved parties; and
- reviewed an external consultant's report evaluating Board and individual/director performance including recommendations for process improvements to enhance Board and Board Committee functioning.

## STRATEGIC ADVISORY COMMITTEE

The Strategic Advisory Committee assists the Board in fulfilling its oversight responsibilities by reviewing management's recommendations. It also provides advice and assistance to the Board in the areas of strategic planning, implementation of key strategic initiatives, regulatory responsibilities, stakeholder consultation, and safety oversight.

Over the past year, the Strategic Advisory Committee, in accordance with its mandate:

- guided the annual strategic planning process;
- reviewed and approved the 2017 State of Safety Report;
- reviewed corporate IT strategy, architecture, and roadmap development and progress;
- reviewed and recommended Board approval of Data Sharing Principles;
- reviewed the [Resource Allocation Program \(RAP\)](#) expansion and enhancement;
- received reports on technical risk registries and operational activities including education and enforcement;
- reviewed Compliance and Enforcement program development and unpermitted work capture progress;
- reviewed regulatory change plans and recommendations for amendment of legislation to the Province of British Columbia to update reference standards, improve the safety system, and evolve the governing legislation and regulations in accordance Technical Safety BC's 10-Year Strategy; and
- engaged with Technical Advisory Committee members.

## ADVISORY PANELS, COMMITTEES, AND WORKING GROUPS

In addition to the committees of the Board, Technical Safety BC has established an Advisory Panel of Stakeholders. This panel consists of 12–15 members who provide advice or recommendations to Technical Safety BC's Board and the Chief Executive Officer on topical strategic issues and proposed policies and strategies.

### Advisory Panel of Stakeholders

Adam van Steinburg	Chris Gardner	Lionel Railton	Shelley Gray
Alan Wrong	Dana Taylor	Lorne Richard	Steve Sharples
Andrew Pape-Salmon	Deborah Cahill	Michael Cameron	Wendy Strugnell
Ann English	Deborah Bowman	Mitch Weimer	Zulie Sachedina
Bill Yearwood	Gregory Steves	Nancy Olewiler	
Cam Filmer	Kirk Rockerbie	Patrick Ryan	
Catherine Holt	Lindsay Langill	Paul LaBranche	

Technical Safety BC forms advisory groups of industry stakeholders to provide insight and recommendations. This helps inform how we carry out our mandate to maintain and improve public safety in the technical areas under our jurisdiction.

## SAFETY STANDARDS ADMINISTRATORS' GROUP

### Administrators

Brett Dwyer	Patrick Shek
Doug Patan	Paul Steele
Fred Tewfik	Ryan Morhart
John de Ruiter	Stephen Côté-Rolvink
Kevin Spooner	Wayne White

### Electrical Technical Group

Darcy Fitzgerald	Mike Shannon
Dave Rasmussen	Mike Staples
Eric Sipila	Paul Kelly
Keiller Gowans	Paul Steele

### Electric Vehicle Energy Management Systems Working Group

Bill Strain	Kelly Carmichael
Bunsen Leung	Mark Kelvin
Clay Howey	Mike Nash
Colby Manley	Mike Shannon
Don Chandler	Paul Steele
Eric Sipila	Philip Corby
Gary Geissinger	Royce Bernard
Jeremy Overton	

### Gas Technical Group

Gord Postle	Phil White
Harold Tamagi	Phil Wynne
Jim Siemens	Rob Dyer
Maurice Poitras	



## ADVISORY PANELS

### Amusement Devices Advisory Panel

Cindy Sypher	Emily Newhouse
David Lo	Juliana Buitenhuis
Dean McKernon	Kathryn Woodcock
Dean Roberts	Shawn Joinson

### Railway Safety Management Systems Advisory Panel

Chris Bevilacqua	Ryan Paine
Doug Denluck	Shabnam Mir Seraji
Jason Boldt	Todd Wallace
Jeff Colebrook	Vince Jones
Jon Arason	

### Canadian Electrical Code 2018 Adoption Advisory Panel

Ark Tsisserev	Mike Shea
Bill Strain	Paul Steele
Jason Rowley	Richard de Lhorbe
Jeremy Overton	Ron Chambers
Jim Gamble	Ted Simmons
Jon Fairbrother	
Laird Cronk	

## ADVISORY COMMITTEES AND WORKING GROUPS

### Boiler Technology Advisory Committee

Andrew Wright	Greg Manzulenko
Christy Walsh	Matt Buss
Clayton Mullen	Robert Gottschlich
Dave Mills	Rock Doyer
Glenn McQuarrie	Steven Lukawitski

### Electrical Technology Advisory Committee

Andy Cleven	Jeremy Overton	Lawrence Gibson
Adam van Steinburg	Jim Gamble	Mike Shea
Dale Risvold	Jon Fairbrother	Paul Steele
Gary Geissinger	Ken Scambler	
Jason Rowley		

### Elevating Devices Technology Advisory Committee

Albert Leung	Oskar Kwieton
Allister Hayes	Rob Busch
Don Sanchez	Ryan Mick
Eric Peterson	Steve Patrick
Frank Kelpin	Wendy Morrison
Heiner Marnet	

### Gas Technology Advisory Committee

Byron Book	Glen Ohs	Rob Gardner
Clint Hillman	Ken Newbert	Rob Marchiori
Darren Tocher	Marty Old	Wayne Cankovic
Doug Cordero	Maurice Poitras	

### Temporary Pressure Enclosures Working Group

Andrew Wright
Christy Walsh
Steven Lukawitski

### Photovoltaic & Alternative Energy System Working Group

Alina Urloiu	Paige Hill
Andy Cleven	Rob Marchiori
Jeremy Overton	Wayne Cankovic
Jim Gamble	

### Major and Minor Alterations Working Group

Brett Keeble	Michael Chadney
Christopher Blais	Noel Paiuk
Glenn Zolnierczyk	Peter Sorensen
James Gray	Sam Hamze
Kipp Rudd	Sheldon Bornstein

### Public Advisory Committee on Technical Safety

Don Maki	Ian Mulcaster	Trevor Whalley	Wade Matheson
Glenn Hodge	Jenna Mitchell	Ursula Sommerfeld	



## **OUR BOARD OF DIRECTORS AND EXECUTIVE TEAM**



## GEORGE ABBOTT

### CHAIR OF THE BOARD

Location: Victoria, BC

Director since: April 1, 2017

Latest date for retirement: April 1, 2022

Appointed by: Board

Positions Held: Ex officio, Governance & Human Resources Committee

Ex officio, Finance & Audit Committee, Ex officio, Strategic Advisory Committee

George Abbott is a veteran politician and a doctoral candidate in political science at the University of Victoria. First elected as an MLA for the Shuswap in 1996, George has served as Minister of Education, Minister of Aboriginal Relations and Reconciliation, Minister of Health, Minister of Community, Aboriginal and Women's Services, and Minister of Sustainable Resource Management.

George was Deputy House Leader for the Official Opposition and critic for municipal affairs and forests. He was Deputy Chair of the select standing committees on Forests, Energy, Mines and Petroleum Resources, and was a member of the select standing committee on Aboriginal Affairs. Additionally, he sat on the Official Opposition Caucus Committee on Crime.

Before his election to the Legislative Assembly, George was a political science instructor at Okanagan University College. He also owned the oldest and largest berry farm in the Interior.



## IAN BANKS

Location: North Vancouver, BC

Director since: January 6, 2014

Latest date for retirement: January 6, 2020

Appointed by: Board

Positions Held: Chair, Finance & Audit Committee

Ian Banks has 20 years' diverse business experience in operations, finance, sales, marketing and IT. Currently, Ian is Chief Information Officer at Metrie, North America's leading manufacturer and distributor of solid wood and MDF finishing products.

Prior to joining Metrie, Ian worked with Ritchie Bros. Auctioneers; was president of an Internet-based startup, and was Vice President of Global IT at PMC-Sierra. He also led the Western Canadian IT services and software solutions team at TELUS, was a management consultant at Fujitsu; was CIO at a major transportation services Crown corporation, and served as visiting professor at SFU's MBA Program.

Ian's board experience includes for-profit and not-for-profit boards including the CIO Association of Canada and The Bloom Group (formerly Saint James Community Service Society).

## BOARD OF DIRECTORS



### KAREN BAZYLEWSKI

Location: Coquitlam, BC

Director since: April 10, 2015

Latest date for retirement: April 10, 2021

Appointed by: Board

Positions Held: Member, Governance & Human Resources Committee

Member, Strategic Advisory Committee

Karen Bazylewski has been active in the construction industry for over 40 years and is a member of the Mechanical Contractors Association of BC and the British Columbia Construction Association. Karen is currently a project manager with Modern Niagara – Vancouver. She is a former board member of both the Construction Industry Training Organization (Chair, Program Standards Committee) and the Vancouver Regional Construction Association (Executive, Education, Awards of Excellence (Chair), Partnership, Manufacturers and Suppliers (Chair) and Trade Contractors Committees). Karen is also a past member and president of the Canadian Construction Women Association (CCW). In 2002, Karen was the recipient of the VRCA/CCW Outstanding Women in Construction Award.



### JEREMY BLACK

Location: Whistler, BC

Director since: April 2, 2017

Latest date for retirement: April 2, 2023

Appointed by: Board

Positions Held: Member, Finance & Audit Committee,

Member, Strategic Advisory Committee

Jeremy Black is a Chartered Professional Accountant (CA) and business executive with nearly 30 years of varied business, financial, and leadership experience. Jeremy is the Chief Financial Officer of Metrie, a large, privately-owned manufacturer and distributor of specialty building products. Before Metrie, he was the Senior Vice President and Chief Financial Officer of Whistler Blackcomb where he led finance, investor relations, information technology, and strategy development initiatives for the largest and most visited four-season mountain resort in North America.

Prior to joining Whistler Blackcomb in 2013, Jeremy was the Vice President, Business Development & Corporate Secretary of Ritchie Bros. Auctioneers. In addition to bringing significant financial expertise to the board, he brings an in-depth knowledge of safety and risk management, including experience as an asset owner responsible for multiple technologies overseen by Technical Safety BC.



## NEIL CUMMING

Location: Richmond, BC

Director since: March 31, 2016

Latest date for retirement: March 31, 2022

Appointed by: Minister

Positions Held: Member, Governance & Human Resources Committee,  
Member, Strategic Advisory Committee

Neil Cumming is a civil engineer and business leader with extensive experience in civil engineering, business management and project management in BC. He is a former President and CEO of Levelton Consultants Ltd. where he enjoyed success in a number of technical, managerial and leadership positions. Neil has been active with numerous business practice and technical committees of the Canadian Standards Association, the American Concrete Institute, Engineers and Geoscientists BC, and the Canadian Construction Documents Committee. He was a Director of the Consulting Engineers of BC (now ACEC-BC) from 2001 to 2005, and served as President in 2003–04. He has also served on the national board of directors of the Canadian Council of Independent Laboratories.



## BRENDA EATON

Location: Victoria, BC

Director since: January 6, 2014

Latest date for retirement: January 6, 2020

Appointed by: Board

Positions Held: Chair, Strategic Advisory Committee

Brenda Eaton is a seasoned corporate director serving as the Chair of Transelec; Vice Chair of the project board overseeing the construction of Victoria's new sewage treatment plant; and a director for BC Ferries, Westland Insurance, and LifeLabs.

Prior to becoming a corporate director, Brenda held a variety of senior finance positions in the B.C. Government. She also served as Deputy Minister of three government departments: Finance, Energy and Social Services. For four years, she was Deputy Minister to the Premier of British Columbia, and prior to that, was CFO at a health authority.

Brenda has been awarded the Queen's Golden Jubilee Medal, WXN's 100 Most Powerful Women in Canada, voted Consumer Choice's BC Businesswoman of the Year and the University of Victoria Distinguished Alumni award.



# BOARD OF DIRECTORS



## HUGH GORDON

Location: Victoria, BC

Director since: March 29, 2012

Latest date for retirement: March 29, 2018

Appointed by: Board

Positions Held: Chair, Finance & Audit Committee

Hugh Gordon is a Chartered Accountant and a Fellow of the Institute of Chartered Accountants of British Columbia. He was a tax partner with KPMG and prior to retirement, practiced in Calgary, Victoria, Toronto and Vancouver.

In addition, he has consulted with governments on various fiscal matters and acted as a negotiator, including as Assistant Chief Negotiator for British Columbia on the Nisga'a land claim and self-government negotiations. Hugh has served on various civic, charitable and business boards and commissions, including the boards of BC Rail, the University of Victoria and as board chair and chancellor of Royal Roads University.

He is currently Chair of the Board of the Irving K. Barber British Columbia Scholarship Society and on the board of the British Columbia Wine Authority. Hugh is a recipient of the Queen's Jubilee Medal and in 2003 he received an honorary Doctor of Laws from Royal Roads University.



## DAVID GUSCOTT

Location: Vernon, BC

Director since: April 1, 2018

Appointed by: Board

Positions Held: Member, Finance and Audit Committee

David Guscott is an experienced and accredited board member having served on eight boards in BC and Ontario. He recently retired as president and CEO of E-Comm911 where he worked with municipalities, fire, police, and ambulance across BC to grow E-Comm to become the largest 9-1-1 emergency call centre in Canada, driven by a strong vision for service and accountability.

David came to BC in 2006 to join VANOC where he was Executive Vice-President for Celebrations and Partnerships for the 2010 Olympic and Paralympic Winter Games. He was Deputy Minister of three ministries in Ontario including Transportation, Labour, and Communications.

He brings to the board extensive experience in developing partnerships with municipalities; a strong technical background in public safety, transportation, and environmental management; as well as broad board experience.

David has a Masters of Public Administration from Queen's University.





## GEORDIE HENDERSON

Location: Vancouver, BC

Director since: January 6, 2014

Latest date for retirement: January 6, 2020

Appointed by: Board

Positions Held: Chair, Governance & Human Resources Committee

Geordie Henderson is a software industry entrepreneur, investor and business principal with extensive software product development, sales, service delivery, and management experience.

Geordie is currently GM, Cloud Messaging at AWS in Vancouver. Previous to AWS, Geordie led the software development team at Bench Accounting and prior to that, Hootsuite. He is also active in the Canadian software start-up community as an investor, advisor and board member.



## ALISON NAROD

Location: Vancouver, BC

Director since: March 31, 2012

Latest date for retirement: March 31, 2018

Positions Held: Member, Finance & Audit Committee

Member, Strategic Advisory Committee

Alison Narod practices in the areas of labour and employment law, human rights, workers compensation, family and administrative law at the Vancouver law firm of Farris, Vaughan, Wills & Murphy LLP. Alison is currently a disciplinary panel chair for the Investment Industry Regulatory Organization of Canada, a member of the Community Care and Assisted Living Appeal Board, and a director of ACT Autism Community Training Society.



## NANCY OLEWILER

Location: Vancouver, BC

Director since: April 1, 2018

Appointed by: Board

Positions Held: Member, Governance and Human Resources Committee

Nancy Olewiler is an economist, professor, and director of the School of Public Policy at Simon Fraser University. She holds a PhD in economics from the University of British Columbia and her areas of research focus on public policy, including energy and climate policy, regulation and risk, and transportation. She has published in academic journals, edited books, provided reports for governments, and has written two widely used textbooks. Nancy has served on the board of directors of BC Hydro, Powertech, and TransLink, is on Canada's Ecofiscal Commission, a member of the Climate Solutions Clean Growth Council for BC, and the Chair of the Macroeconomic Accounts Advisory Committee for Statistics Canada.

# BOARD OF DIRECTORS



## DOUG SCOTT

Location: Vancouver, BC

Director since: March 31, 2016

Latest date for retirement: March 31, 2022

Appointed by: Minister

Positions Held: Member, Governance & Human Resources Committee  
Member, Finance & Audit Committee

Doug Scott is a construction industry senior level executive and entrepreneur with extensive commercial design-build and industrial facilities construction expertise, including business process re-engineering, infrastructure re-design and financial and business development negotiations.

Doug is currently the president and owner of Wales McLelland Construction, a leading firm for over 45 years in the commercial design-build construction industry. Prior to Wales McLelland Construction, Doug held senior project manager and project engineer positions with a large international, heavy-civil contractor. He currently serves as a benefits trustee with the Independent Contractors and Business Association (ICBA) and previously served as an ICBA board member. Doug has an engineering degree from Queen's University and is a member of the Association of Professional Engineers and a registered professional engineer in BC.



## GAIL STEPHENS

Location: Victoria, BC

Director since: December 7, 2017

Latest date for retirement: December 7, 2020

Appointed by: Minister

Positions Held: Member, Finance & Audit Committee  
Member, Strategic Advisory Committee

Gail Stephens brings more than 20 years of experience leading large, complex organizations to the Technical Safety BC board of directors. Her past experience includes serving as CEO of the British Columbia Pension Corporation and as the chief administrative officer for the City of Winnipeg and City Manager for the City of Victoria.

Most recently, Gail was the startup chief operating officer, then interim president and chief executive officer for the Canadian Museum of Human Rights, where she led the museum and its management departments through its first few years of operation.

Gail has sat on numerous boards, including Coast Capital Savings, the David Foster Foundation, Via Rail Canada Inc. and the BC Industry Training Authority. She is currently the president of Gail Stephens Consulting, which provides management consulting services, and an executive advisor to the President/Owner of Focus Equities and Bayview Place.

## DIRECTORS' ATTENDANCE

Board and committee meetings are set two years in advance to optimize director attendance. Members of the executive team are invited to attend all board meetings and may also attend the various committee meetings. Non-attendance at board and board committee meetings is expected to be rare.

New board and committee appointments are generally effective on March 31 each year. In 2018, there were four regularly scheduled board meetings, a two-day strategic planning session, and an Annual

Public Meeting. The following table illustrates the number of meetings each director attended as compared to the number of meetings the particular director was eligible to attend during the 12 months that ended December 31, 2018. Some directors also attended meetings and interview sessions for new board member recruitment, a new Director orientation session, Tech Talks, the Lieutenant Governor Safety Awards, and ride-alongs with Technical Safety BC safety officers.

DIRECTORS	BOARD MEETINGS (7 MEETINGS)	FINANCE & AUDIT (4 MEETINGS)	GOVERNANCE & HUMAN RESOURCES (5 MEETINGS)	STRATEGIC ADVISORY COMMITTEE (4 MEETINGS)	TOTAL
George Abbott	7/7	3/4	4/5	4/4	18/20
Ian Banks	6/7	4/4	-	1/1	11/12
Karen Bazylewski	6/7	-	5/5	3/3	14/15
Jeremy Black	6/7	4/4	-	3/3	13/14
Neil Cumming	7/7	-	5/5	4/4	16/16
Brenda Eaton	6/7	-	-	3/4	9/11
Hugh Gordon <sup>1</sup>	1/1	1/1	-	-	2/2
David Guscott <sup>2</sup>	6/6	3/3	-	-	9/9
Geordie Henderson	7/7	-	2/2	-	9/9
Alison Narod <sup>3</sup>	1/1	-	-	1/1	2/2
Nancy Olewiler <sup>4</sup>	6/6	-	-	3/3	9/9
Doug Scott	7/7	3/4	4/5	-	14/16
Gail Stephens <sup>5</sup>	7/7	3/3	-	3/3	13/13

<sup>1</sup> Retired from the Board on March 29, 2018.

<sup>2</sup> Appointed to the Board on April 1, 2018.

<sup>3</sup> Retired from the Board on March 31, 2018.

<sup>4</sup> Appointed to the Board April 1, 2018.

<sup>5</sup> Appointed by the Minister to the Board on December 6, 2017.

## DIRECTORS' COMPENSATION

The Governance and Human Resources Committee is responsible for making recommendations to the Board respecting director compensation. An independent review of Technical Safety BC's director compensation practices against comparable organizations was conducted in 2018. Based on that review, the Board approved adjustments to the quantum of meeting fees and annual retainers payable to board and committee members. The adjustments are scheduled to become effective as at April 1, 2019.

Director compensation is set at such a level so as to:

- affirm the directors' responsibilities and the professional nature of the work that directors are expected to perform;
- attract and retain qualified individuals to serve as directors;
- partially compensate directors for their time and lost opportunity costs and be seen as "value received" for value given;
- foster high levels of engagement and commitment to best in class governance;
- recognize the different levels of time and responsibility associated with the Board Chair, Committee Chair and director positions;
- recognize an element of public service; and
- reflect Technical Safety BC's values.

The following table shows director compensation as of April 1, 2018. Compensation remained the same as in April 1, 2017.

FEE	2018 \$	2017 \$
Annual retainer – Chair	42,200	42,200
Annual retainer – Committee Chair	17,900	17,900
Annual retainer – Directors	12,700	12,700
Board/Committee meetings fee	790	790
Maximum daily meeting fee	1,185	1,185
Teleconference of less than one hour	395	395

## DIRECTORS' RETAINER AND MEETING FEES FOR 2018

The following table reflects the total retainers and meeting fees earned by directors in 2018 as compared to 2017.

DIRECTORS	RETAINER	MEETING FEES	TOTAL RETAINER/ FEES 2018	TOTAL RETAINER/ FEES 2017
	\$	\$	\$	\$
George Abbott (Board Chair)	42,200	15,010	57,210	56,665
Ian Banks (Committee Chair)	16,600	8,690	25,290	23,760
Karen Bazylewski	12,700	11,060	23,760	27,710
Jeremy Black	12,700	10,270	22,970	17,425
Neil Cumming	12,700	12,640	25,340	27,710
Brenda Eaton (Committee Chair)	17,900	7,110	25,010	26,590
Hugh Gordon <sup>6</sup>	4,475	1,580	6,055	26,590
Geordie Henderson (Committee Chair)	17,900	9,480	27,380	30,030
Alison Narod <sup>7</sup>	3,175	2,370	5,545	23,760
Charles (Doug) Scott	12,700	10,270	22,970	22,180
Gail Stephens <sup>8</sup>	9,525	11,850	21,375	n/a
David Guscott <sup>9</sup>	9,525	7,900	17,425	n/a
Nancy Olewiler <sup>10</sup>	9,525	7,900	17,425	n/a
<b>Totals</b>	<b>181,625</b>	<b>116,130</b>	<b>297,755</b>	<b>282,420 <sup>11</sup></b>

<sup>6</sup> Retired from the Board on March 29, 2018.

<sup>7</sup> Retired from the Board on March 31, 2018.

<sup>8</sup> Appointed by the Minister to the Board on December 6, 2017 and includes compensation for attending a two day new director orientation session.

<sup>9</sup> Appointed to the Board on April 1, 2018 and includes compensation for attending a one day new director orientation session.

<sup>10</sup> Appointed to the Board on April 1, 2018 and includes compensation for attending a one day new director orientation session.

<sup>11</sup> This figure does not include retainer fees for Jo-Ann Panneton of \$26,130 and Richard Ballantyne of \$14,500 totaling \$40,630. Jo-Ann Panneton retired from the Board on December 6, 2017, and Richard Ballantyne retired from the Board on April 1, 2017.

# EXECUTIVES



## CATHERINE ROOME PRESIDENT & CHIEF EXECUTIVE OFFICER

**Location:** Vancouver, BC

Catherine is a courageous, visionary leader who is relentlessly driven to change the world and believes that people have an extraordinary ability to bring a shared vision into reality. Her passion and commitment to growing the next generation of leaders inspires the modern, diverse people practices at Technical Safety BC.

One of BC's senior leaders in the engineering and technology sector, Catherine has consistently delivered game-changing strategies that use technology innovation for public good. A "futurist," she is building Technical Safety BC's place in the algorithmic economy using predictive insights to create long-term, sustainable social and financial value, as she steers the organization towards its vision of *Safe technical systems. Everywhere.*



## PHIL GOTHE VICE PRESIDENT, SAFETY SYSTEM OPERATIONS

**Location:** Vancouver, BC

Phil believes that "to live is to lead," and that the primary role of leadership is to imagine and create conditions for employees to thrive.

A thoughtful and caring leader, Phil supports teams of technically-minded specialists to enable the development of ground-breaking new approaches to technical safety oversight. By focusing on regulatory product development and assessment practices, Phil invests in working relationships to advance the understanding and management of safety risks. He has a deep regard for the knowledge and capability of clients and employees, and believes that developing a system of engaged duty holders is vital to maintaining confidence in the safety system.

A graduate of Collège militaire royal de Saint-Jean, Phil began his career in naval operations in the Royal Canadian Navy. Before joining Technical Safety BC in 2009, Phil spent 10 years leading business strategy development and continuous improvement consulting engagements in the forest products, helicopter and heavy equipment industries. Phil has an MBA from the University of Western Ontario, and obtained a Chartered Director designation from The Directors College. He is inspired by lifelong learning and peoples' infinite capacity to improve and achieve results.





## KATE BAILLIE

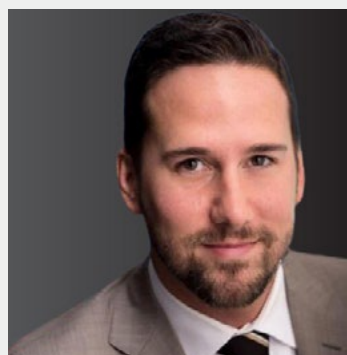
### VICE PRESIDENT, COMMUNICATIONS & CONTENT STRATEGY

**Location:** Vancouver, BC

Kate has spent her career putting clients and teammates at the centre of what she does. She is a curious and inspiring leader who looks at opportunities holistically to motivate and engage teams towards practical, multi-dimensional solutions. Comfortable in a constantly changing landscape, she listens actively and digs for the truth, using observation and data to build cases for change.

Kate joined Technical Safety BC from TELUS, where she led teams in marketing, communications and customer experience. She has a Bachelor of Applied Arts degree from Ryerson Polytechnical University and an MBA from the Richard Ivey School of Business at the University of Western Ontario.

When not obsessing over safety, Kate works to improve diversity in the workplace, mentors up-and-coming leaders and likes to spend time outside – either doing hard labour in her garden or enjoying all the amazing hiking and kayaking that Vancouver has to offer.



## QUINN NEWCOMB

### VICE PRESIDENT, HUMAN RESOURCES, LEARNING & ENGAGEMENT (INTERIM)

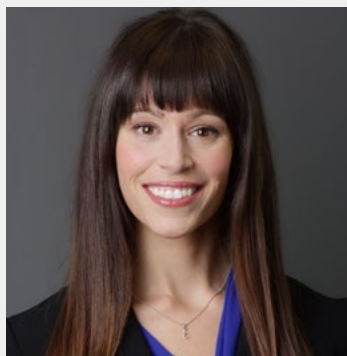
**Location:** Vancouver, BC

Quinn is an agile, forward-thinking leader with a passion for organizational change management, values-based culture building, and brand growth. An innovative problem solver, Quinn is an authentic professional with a deep integrity and commitment to excellence.

Quinn's experience in communications, marketing, and human resource management has instilled a strong belief that an engaged, people-centred culture contributes to a differentiated brand experience—that together they are key to driving an organization with integrity and authenticity.

Prior to joining Technical Safety BC, Quinn held positions with federal and provincial governments and Crown corporations. Quinn holds a BA in International Political Economy from the University of Victoria and an MA in International Affairs from the Norman Patterson School of International Affairs at Carleton University.

## EXECUTIVES



### KATE PARKER VICE PRESIDENT, PEOPLE

Location: Vancouver, BC

Kate is driven by the belief that an organization will only truly excel when it's people are encouraged and challenged to show up as their best selves every day. At Technical Safety BC, she uses courage, energy and curiosity to get at the heart of our challenges and opportunities, and facilitates bold conversations that question the status quo. To fulfill on our promise to model the integration of humanity and technology, Kate draws on her experience driving cultural transformation and people-focused change, building our capacity to adapt to changing environments and develop each person to their maximum potential.

Kate has a proven track record of transforming HR practices across industries including mining, heavy machinery, and healthcare. She holds a degree in Psychology and Kinesiology from Simon Fraser University and completed her graduate studies at UBC's Sauder School of Business. Kate is a recognized speaker in the areas of leadership development, diversity and employee health and wellness. Outside of the office, she is most often found on the North Shore trails, or creating new dishes in the kitchen (but rarely following a recipe!).



### DEREK E. PATTERSON VICE PRESIDENT, REGULATORY LEADERSHIP & CORPORATE SECRETARY

Location: Vancouver, BC

Derek actively supports individuals and initiatives that improve technical safety in BC. His extensive professional experience underpins a principled, comprehensive and astute capacity for strategy and problem solving. He is courageous in his leadership of peers and reports alike, respectfully challenging and empowering individuals in their contributions to the organization.

Derek is highly experienced in the practice of regulatory law and change management, having served as chief legal, risk and compliance advisor, and corporate secretary to senior leadership teams and boards of both public companies and Crown corporations.

Prior to joining Technical Safety BC, Derek held senior positions with a number of organizations, including the Insurance Corporation of BC and the Investment Industry Regulatory Organization of Canada. Derek holds a law degree from Osgoode Hall Law School and an MBA from the Schulich School of Business at York University, as well as ICD.D and CPHR designations. He is called to the bar in both Ontario and British Columbia.



## BRIAN SIMMERS

### VICE PRESIDENT, CLIENT EXPERIENCE & CHIEF FINANCIAL

**Location:** Vancouver, BC

Brian believes in an outside-in approach to ensure that the client experience is always at the center of Technical Safety BC's strategy. He brings his business acumen, intuition and ability to utilize technology across the organization while fostering an innovative and collaborative spirit. Brian is focused on tackling complex problems to better enable Technical Safety BC towards achieving its strategic objectives. He uses experimentation, enthusiasm and entrepreneurial spirit to inspire others.

As Vice President, Client Experience and CFO, Brian leads a diverse team of client experience, knowledge-based, and finance specialists all working towards the common goals of building amazing client experiences, enhanced sustainability and technological excellence.

Brian has over 20 years of experience in the telecommunication, software and mobile application sectors. He holds a Bachelor's of Business Administration from Simon Fraser University, is professionally qualified as a Chartered Professional Accountant in Canada and as a Certified Public Accountant in the United States. He articulated with KPMG LLP.



## ABRAHAM VAN POORTVLIET

### VICE PRESIDENT, DATA ANALYTICS & DECISION SCIENCE

**Location:** Vancouver, BC

Exploration and discovery have been recurring themes in Ab's life. In his role of VP, Data Analytics and Decision Science, he now supports others in their discovery and innovation. By nurturing leadership in others, Ab aims to create a culture of experimentation and learning that propel safety knowledge and action. Together with his team, Ab carries responsibilities for research & analytics, business intelligence, engineering, incident investigation, and risk management.

Ab has worked in a variety of progressive roles at Technical Safety BC since he joined in 2005. Originally from the Netherlands, Ab previously worked as a project leader for safety engineering in railway infrastructure, and as a risk analyst at the Dutch Ministry of Transportation. Ab holds an MBA from Simon Fraser University, a doctorate in public administration, and an MSc in applied physics. He is a registered Professional Engineer and Chartered Professional Accountant in British Columbia.

## EXECUTIVE COMPENSATION

### TECHNICAL SAFETY BC IS A PROGRESSIVE EMPLOYER WITH A 10-YEAR STRATEGY TO MOVE US TOWARDS OUR VISION OF *SAFE TECHNICAL SYSTEMS. EVERYWHERE.*

The objectives of Technical Safety BC's executive compensation plan are to:

- attract and retain capable individuals with diverse skill sets;
- achieve alignment of our priorities and efforts to our 10-Year Strategy and Three-Year Business Plan;
- offer a total rewards package that balances stable elements of compensation with pay at risk;
- demonstrate sensitivity to our stakeholder communities; and
- remain internally fair and externally competitive.

To meet the objectives outlined above, Technical Safety BC's executive compensation plan elements comprise of the following:

#### **BASE SALARY**

Technical Safety BC establishes salary ranges according to a blended market position that is midway between the public not-for-profit sector and the private sector markets. The range spans from 80% to 120% of the blended market median. Placement within the salary range depends on the competence, experience, and level of contribution to the business plan and strategy.

#### **VARIABLE INCENTIVE PLAN:**

This element is the at-risk<sup>1</sup> portion of annual compensation and is dependent on the achievement of critical corporate and individual objectives aligned to our 10-Year Strategy. It is also intended to reinforce our value of accountability at the leadership level in the organization. Annual incentive awards are determined on a discretionary basis dependent on the achievement of strategic objectives that are established annually by the Board of Directors.

Corporate performance is assessed by management and audited by Internal Audit. The Board of Directors assesses the performance of the President and Chief Executive Officer and the Corporate Secretary annually. The President and Chief Executive Officer assesses the performance of the remaining executive team members.

#### **PENSION PLAN**

Technical Safety BC supports a pension plan that will contribute to employees' financial well-being in their retirement years.

#### **HEALTH AND WELLNESS BENEFITS**

A mix of extended health, dental, and income protection benefits are offered to support the health of employees.

#### **CAR ALLOWANCE**

A monthly car allowance is provided to account for business travel using personal vehicles.

A review of the Executive Compensation is scheduled to be completed in 2019.

<sup>1</sup> Also referred to by some organizations as a "Hold-back Compensation" Plan.

## SUMMARY EXECUTIVE COMPENSATION TABLE – 2018

NAME & PRINCIPAL POSITION	SALARY \$	INCENTIVE PLAN COMPENSATION PAID \$	PENSION \$	HEALTH & WELLNESS BENEFITS \$	ALL OTHER COMPENSATION PAID \$	TOTAL \$	PREVIOUS 2 YEARS TOTALS \$
	(A)	(B)	(C)	(D)	(E)		
Catherine Roome <i>President &amp; CEO</i>	300,309.49	92,681.07	29,611.64	10,320.00	13,181.56	446,103.76	2017 = 438,404.16 2016 = 413,697.67
Phil Gothe <i>VP, Safety System Operations</i>	196,408.50	40,857.42	18,983.48	8,502.72	9,581.56	274,333.68	2017 = 270,644.34 2016 = 258,406.34
Quinn Newcomb <sup>1</sup> <i>VP, Human Resources Learning &amp; Engagement (Interim)</i>	124,011.95	29,586.64	12,082.84	6,495.87	7,526.64	179,703.94	2017 = 40,389.79 2016 = n/a
Derek Patterson <i>VP, Regulatory Leadership &amp; Corporate Secretary</i>	220,792.31	48,146.06	21,551.35	9,978.12	9,581.56	310,049.40	2017 = 308,919.14 2016 = 258,256.73
Ab van Poortvliet <i>VP, Data Analytics &amp; Decision Science</i>	162,616.49	36,885.30	15,845.92	5,747.40	9,111.48	230,206.59	2017 = 170,081.07 2016 = n/a
Brian Simmers <i>VP, Client Experience &amp; CFO</i>	221,831.82	48,372.09	21,808.84	10,000.68	9,581.56	311,594.99	2017 = 306,782.72 2016 = 287,869.06
Kate Baillie <sup>2</sup> <i>VP, Communications &amp; Content Strategy</i>	41,396.27	–	4,077.54	1,746.27	1,920.32,	49,140.40	2017 = n/a
Kate Parker <sup>3</sup> <i>VP, People</i>	17,248.45	–	1,698.97	753.09	747.80	20,448.31	2017 = n/a

(A) Salary earned (B) Variable Incentive Pay (C) Pension (D) MSP Premiums, Extended Healthcare, Dental, Group Life, Long Term Disability, Short Term Disability, Accidental Death and Dismemberment (E) Car Allowance, Vacation Leave Payout

<sup>1</sup> Departed role on September 30, 2018. <sup>2</sup> Commenced in role as of October 1, 2018. <sup>3</sup> Commenced in role as of November 19, 2018



# **MANAGEMENT DISCUSSION AND ANALYSIS**



AS A NOT-FOR-PROFIT ENTITY, TECHNICAL SAFETY BC OPERATES WITHIN A LONG-TERM FINANCIAL PLANNING STRATEGY, BALANCING INVESTMENTS IN THE SAFETY SYSTEM OVER A PERIOD OF YEARS. A SUSTAINABLE TECHNICAL SAFETY BC AIMS TO DELIVER ITS 10-YEAR STRATEGY AND VISION: *SAFE TECHNICAL SYSTEMS. EVERYWHERE.*

Prudent investment in employees, training, tools, and capital assets support our work in assessment, education and outreach, enforcement, and research, which is essential to achieving our objectives and advancing technical safety in the Province.

This Management Discussion and Analysis details Technical Safety BC's financial and operating results for the year ended December 31, 2018, and should be read in conjunction with the audited financial statements.

## RESULTS

**TABLE 1: KEY FINANCIAL PERFORMANCE**

KEY FINANCIAL PERFORMANCE INDICATORS	2018	2017
<b>Monetary indicators (in 000's)</b>	\$	\$
Total revenue	65,603	61,490
Operating expenses	67,828	59,351
Salaries and benefits	44,332	39,885
Excess (deficiency) of revenue over expenses	(2,224)	2,139
Operating reserve	5,873	10,123
Capital budget spend	7,069	5,700
<b>Other indicators</b>		
Total volumes of permits (in 000')	277	277
Average fee	\$ 235	\$ 217
Contribution margin	38.5%	40.1%
Overhead ratio	41.9%	36.6%
Full Time Equivalent employees (FTEs)	402	368

## RESULTS CONTINUED

Total revenues were \$65.6 million (an increase of 7% or \$4.1 million over 2017), primarily due to the strong construction market in BC, resulting in growth in installation permits. In addition to new home construction and non-residential building investment, a continuing focus on bringing unpermitted work into the safety system supplemented permit volumes and, by extension, our revenues.

Compared to 2017, overall total permit volume of all types remained approximately the same. Installation permits increased by 9%, driven mainly by the gas and electrical industries. Operating permits decreased by 10%, driven mainly by the migration of clients from individual permits for each operating asset (prescriptive fees) to an audit-based, safety oversight program (the [Alternative Safety Approach](#) (ASA) program), which is described in more detail in the following Total Revenue section. This change had little impact on our overall revenue.

With strong revenues in 2018 the organization advanced a number of important strategic and operational initiatives. This push had an impact on operating expenses (\$67.8 million, which represents a 14% or \$8.5 million increase from 2017). Increased spending was associated with an increase in client service activity to support new certification requirements, a continued focus on compliance and enforcement, investment in

improved [risk](#) prioritization techniques for [assessment](#), and new training programs, as well as one-off costs related to the relocation of the head office from New Westminster to East Vancouver. The continued [investigation](#), and ultimately the operationalizing of province-wide risk control, stemming from the tragic [incident at the Fernie Memorial Arena](#), also increased our costs for 2018.

Volatility in the Canadian Stock Market in December 2018 resulted in an unrealized loss on investments of \$0.5 million, which is recorded in our 2018 financials. This loss is expected to reverse in 2019, based on market improvement.

For the year ended December 31, 2018, Technical Safety BC incurred a deficit of \$2.2 million of revenues over expenses. This compares to an excess of \$2.1 million in 2017. There were several factors that contributed to this deficit. Expenditures exceeded budget due to restructuring costs and one-time costs related to the office move to Vancouver. In addition, non-service related revenues were negatively impacted by an unrealized loss on investments as well as an accounting adjustment related to the timing of revenue recognition.

The operating reserve decreased from \$10.1 million to \$5.9 million and represents 9% of the 2019 operating expense budget compared to our internal operating reserve target of 15%.

## TOTAL REVENUE

As an independent, self-funded, not-for-profit organization, Technical Safety BC generates revenue through the delivery of services, such as permits and licensing.

The primary sources of revenue are installation and operating permits, [inspections](#) of technical work and equipment, licence and certificate issuance, and the registration of new equipment and designs. We also derive revenues under the [ASA](#) program, which allows clients to register certain technical equipment and systems for special assessment, such as boilers and pressure vessels or electrical systems. Technical Safety BC will then either assess the equipment or system

under an Equivalent Standards Approach or audit the client's own Safety Management Plan for evidence of compliance with accepted safety standards.

The organization's financial performance is impacted by levels of activity in BC's construction industry. Installation permits are affected by housing starts, renovations, and commercial and industrial building activity.

Our total revenue reached \$65.6 million in 2018, which was 7% higher than the prior year's \$61.5 million. Services and related fees represent approximately 99% of our revenue. The remainder is comprised of investment income, monetary penalties, and other revenue.

TABLE 2: COMPONENTS OF TOTAL

REVENUE (IN 000'S)	2018 \$	2017 \$
Installation permits	37,588	33,406
Operating permits	15,582	16,074
Certification and licensing	4,212	3,701
Design registration	2,128	2,061
Inspections	2,116	2,017
ASA and ESA	1,295	1,177
Equipment approvals	977	1,129
Miscellaneous service revenue	825	663
<b>Total service and related fee revenue</b>	<b>64,723</b>	<b>60,228</b>
Investment and other revenue	880	1,262
<b>Total revenue</b>	<b>\$65,603</b>	<b>\$61,490</b>

In 2018, 57% of service fee revenue (\$37.6 million) was comprised of installation permits, compared to 55% (\$33.4 million) in 2017, and 24% (\$15.6 million) was comprised of operating permits, which is a slight decrease compared to 26% (\$16.1 million) in 2017. The overall transaction volume of all permits was recorded at 276,946, which remained steady compared to 2017. An increase of 9% in installation permits was offset by a decrease of 10% in operating permits. Permit volumes were impacted by clients moving from operating permits, where permits are issued for each asset, to the ASA program where one permit may be issued for all equipment on one site.

The relatively flat transaction volume was compensated for by a 8% increase in average permit value. This is a result of the increase in installation permits and [inspections](#), which typically have a higher fee attached than operating permits.

The net impact of higher average permit value and relatively flat transaction volume was a \$4.5 million increase to service and related fee revenues.

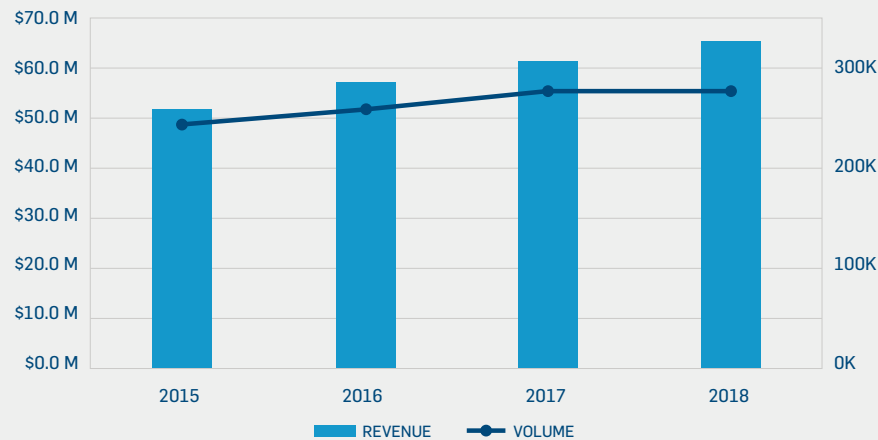
Investment and other revenue decreased by \$0.4 million, a 30% drop. Investment income decreased by \$0.3 million as a result of an unrealized loss on market value at the end of the year. Monetary penalties decreased by \$0.1 million.

As highlighted in [previous annual reports](#), the organization continues to place an emphasis on identifying and acting on compliance and enforcement to improve overall safety. We estimate that this initiative resulted in the issuance of over \$1.5 million in permits that would not have otherwise been issued. Technical Safety BC is committed to this program as it is an integral part of the safety system.

## REVENUE BY

Revenue has grown consistently from 2015 to 2018 and this is mainly attributed to favourable market conditions and predictable, general fee increases. Transaction volumes grew consistently from 2015 to 2017; the slight decrease in volumes seen in 2018 was mainly due to clients moving from prescriptive fees to the ASA program, and was offset by an increase in higher permit fees.

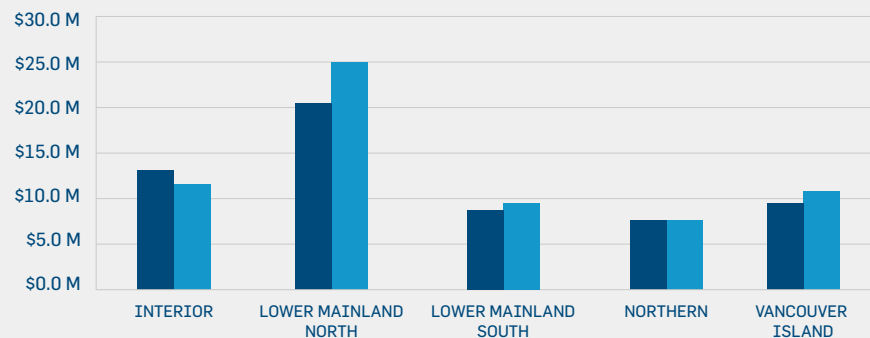
GRAPH 1: REVENUE AND VOLUME BY YEAR



## REVENUE BY REGION

There was growth in service and related fee revenues in all regions of BC, except the Interior, compared to 2017. Higher growth in Lower Mainland North and Vancouver Island was due to the stronger commercial market and higher residential construction activity in these regions. Some of the regional shifts in 2018 are due to an improved system for the accurate recording of permit location, specifically in the Interior region.

GRAPH 2: REVENUE BY

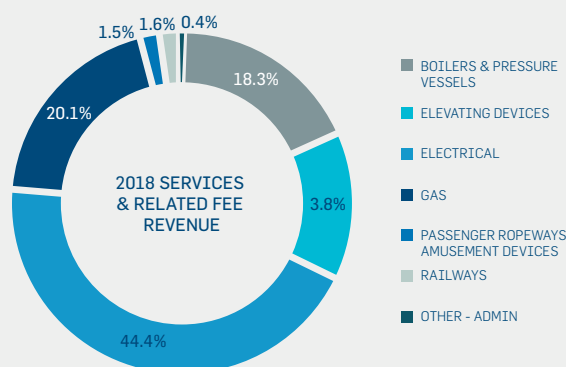


## REVENUE BY TECHNOLOGY

Service and related fee revenues are derived from the oversight of seven different technologies: Electrical; Gas; Boilers, Pressure Vessels, and Refrigeration; Elevating Devices; Railways; Passenger Ropeways; and Amusement Devices.

The Electrical technology contributes the largest portion (44%) of total revenue. The next three largest revenue sources are Gas; Boilers, Pressure Vessels and Refrigeration; and Elevating Devices. The percentage of each revenue category is fairly consistent year-over-year.

**GRAPH 3: TOTAL SERVICE AND RELATED FEE REVENUES BY TECHNOLOGY**



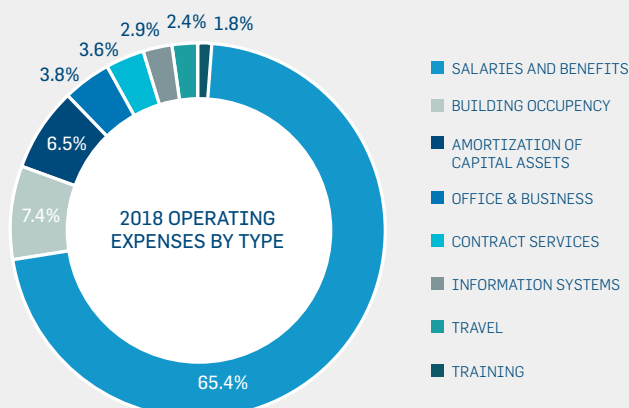
## EXPENSES

In 2018, Technical Safety BC made significant progress towards achieving the milestones set out in our 10-Year Strategy. Technical Safety BC improved client-facing services, enhanced responsiveness to high risk events, and increased the number of technical safety system insights shared, all which have the end result of improving connection and engagement with the safety

system. We also moved the New Westminster head office to a new location in East Vancouver.

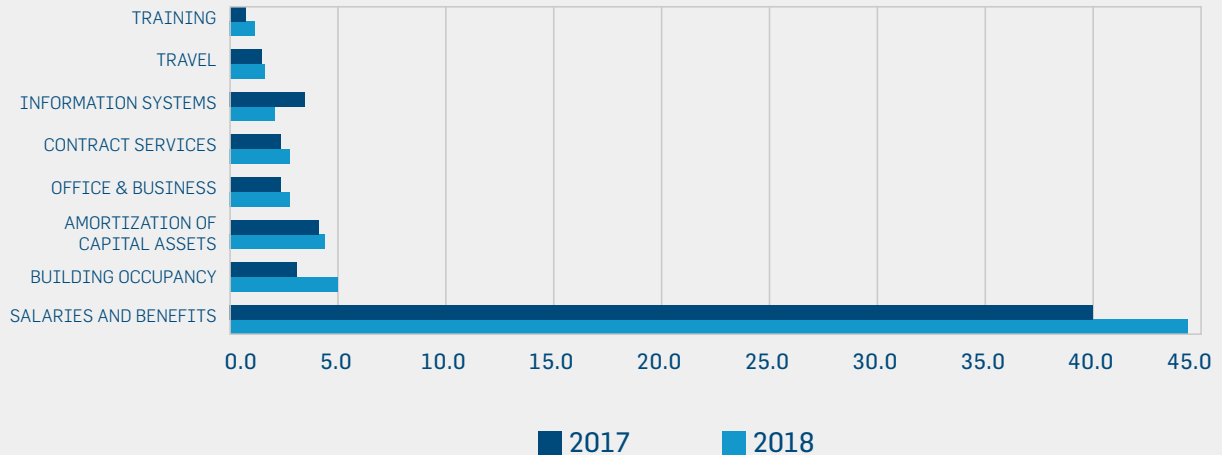
Salaries and benefits continued to comprise the largest proportion of costs at 65% compared to 67% in 2017. Building occupancy expense contributed to 7% of total costs, an increase from 5% in 2017, which relates to certain one-time costs related to the move of the head office.

**GRAPH 4: COMPOSITION OF 2018 OPERATING EXPENSES**



## EXPENSES CONTINUED

GRAPH 5: ANNUAL OPERATING EXPENSE COMPARISON



**Salaries and benefits** expenses exceeded prior year by \$4.4 million (11%). The majority of the increase was due to hiring in the areas of safety operations, client care, and business analytics to support a higher volume of activity, improved [assessment](#) and [incident investigation](#).

**Building occupancy** expenses increased by \$2.0 million (66%) compared to 2017. The increase was due to one-off costs related to the relocation of the head office from New Westminster to East Vancouver. The new office space will improve accessibility for employees, clients and stakeholders as it is located on the Skytrain route at Renfrew Station. It has been designed to accommodate future growth and has been created to facilitate an open and collaborate layout, with natural light and flexible, ergonomic modular furnishings.

**Training expenses** increased by \$0.4 million (55%) compared to the prior year. This was primarily due to technical training for new hires and the roll out of leadership, mental health management and other occupational health and safety training.

**Office and business** expenses increased by \$0.4 million (16%) compared to the prior year. This is mainly due to supplies for the Vancouver office, accounts receivable collection costs, and credit card fees from an increased volume of transactions.

**Contract Services** increased \$0.3 million (16%) compared to the prior year due to costs associated with the investigation into the [fatal ammonia leak in Fernie, BC](#) and in other areas where contractors were temporarily hired to fill vacant positions.

**Telecommunication** expenses increased by \$0.3 million (55%) compared to the prior year mainly due to one-off costs associated with the relocation of the head office.

**Amortization** increased \$0.3 million (7%) compared to the prior year, mainly related to capital investment in office furniture and equipment at the Vancouver office, as well as the purchase of two new servers.



## CAPITAL SPENDING

During 2018, Technical Safety BC spent \$7.1 million in capital. Of this amount, \$3.2 million was a leasehold improvement allowance that was recovered from the landlord at the Vancouver office and was added to the \$0.8 million balance of Deferred Leasehold Inducements on the balance sheet. This allowance will be amortized against rent expenses over the remaining 10-year term of the lease.

Capital was invested in improvements to the Vancouver, Comox, and Victoria offices. Investment in information technology included continued development and improvement of online client services and purchase of new servers to support both the new head office and regional offices. Fleet vehicles were purchased in accordance with the Vehicle Replacement Plan.

## RESERVES AND UNRESTRICTED NET ASSETS

Technical Safety BC's net assets consist of property, equipment, and intangibles, as well as operating, capital, and education reserves. Since 2011, the Board has targeted a reserve level equal to 15% of the operating expenses for the following year. In 2018, the operating reserve decreased to \$5.9 million or 9% of the projected 2019 operating expense due to the excess of expenses over revenues and the aforementioned increase in capital outlays in 2018.

The capital reserve is allocated from the operating reserve to fund long-term capital investment projects such as the modernization of facilities and information technology systems. The balance in any given year represents the estimated capital

expenditures over a period of years depending on the needs of the organization at the time. Technical Safety BC has allocated \$5.4 million for planned capital expenditure in 2019. We will continue to focus on IT solutions that support our strategic priorities and we will replace older fleet vehicles and upgrade regional offices.

The education reserve was established in accordance with the *Safety Standards Act* to reserve monetary penalties collected to pay for safety education programs. In 2018, we collected \$209,826 from monetary penalties, which will be used for future educational activities.

**TABLE 3: COMPARISON OF RESERVES AND NET ASSETS**

RESERVES AND NET ASSETS	2018 \$	2017 \$
Investment in property, equipment, and intangible assets	15,490,268	12,757,194
Education reserve	429,122	232,860
Capital reserve	5,432,000	6,500,000
Operating reserve	5,872,585	10,123,185
<b>Total Net Assets</b>	<b>27,223,975</b>	<b>29,613,239</b>

## RISK AND UNCERTAINTY

### TECHNICAL SAFETY BC HAS ADOPTED A PROACTIVE APPROACH FOR IDENTIFYING, EVALUATING, AND RESPONDING TO THE RISKS THAT ARISE FROM ITS ACTIVITIES IN A SYSTEMATIC MANNER BY ESTABLISHING ITS ENTERPRISE RISK MANAGEMENT (ERM) FRAMEWORK.

The ERM Framework uses industry standards and best practices, and includes the requirement for bi-annual reporting to the Board and Executive team, to enable members to fulfill their fiduciary responsibilities.

Our ERM Framework focuses on the following categories of risks for reporting purposes:

#### SAFETY SYSTEM RISK

Technical Safety BC has a disciplined focus on its regulatory oversight of the safety system to fulfill its mandate of enhancing public safety in accordance with the administrative agreement with the Province of British Columbia. This requires participants to understand technical safety [hazards](#) caused by the unsafe installation and operation of regulated technical equipment or systems.

Risk treatment is a combination of prevention and mitigation strategies deployed under the [Accident Prevention Model](#) aimed at reducing the degree of harm to the public where participants understand their role and responsibilities and are accountable for the work they perform or declare. The participant is ultimately responsible to understand and manage those regulated technical safety hazards and risk event exposures.

We continuously enhance our regulatory oversight practices striking a balance between focusing on safety performance and risk-based physical assessments, while using the data collected to refine strategies. As we proceed into 2019 and beyond, we will continue to improve the way we provide oversight to aging equipment as well as mechanisms to detect emerging technical safety risks in the province.

#### STRATEGIC RISK

The external environment can influence Technical Safety BC's ability to achieve its strategic and business objectives. We define our external environment as: changes or emerging trends related to social behaviours, politics, legal, regulatory, economic, technological factors, whether national, regional, or local. The changes in the external environment whether positive or negative can create new opportunities or can change the materiality of those risks already known to Technical Safety BC.

Strategic risk is the potential for loss arising from business decisions, improper implementation of business strategies, or a lack of responsiveness to changes in the external environment within which Technical Safety BC operates.

We manage strategic risk through planning processes, one of which led to our 10-Year Strategy. This strategy will be updated in 2019 with input from clients, stakeholders, government, employees, and the Board. Our strategic objectives are further supported and refined by our [three-year business plan](#) developed annually, detailing the measures and tactics being used to achieve our strategic goals.

### COMPLIANCE RISK

Similar to other organizations, Technical Safety BC must comply with legislation and regulations, particularly the *Safety Authority Act* under which Technical Safety BC was established; the *Income Tax Act*; and the terms of Technical Safety BC's administrative agreement with the Province of BC. Despite being constituted as an organization independent of government, we remain subject to the requirements of the *Freedom of Information and Protection of Privacy Act*, and we are obligated to comply with the Payment Card Industry Data Security Standards Regulations. Technical Safety BC strives for adherence to all acts and regulations to which we are subject.

### PERFORMANCE RISK

As a regulator, we are faced with potential exposures associated with the delivery and quality of our products and services; including the effective administration of both the *Safety Standards Act* and regulations, and the *Railway Safety Act*. Continuous training of our employees, [structured resource allocation](#), and the establishment of policies and procedures are just some of the practices that enable Technical Safety BC to reduce its exposures.

### TALENT MANAGEMENT RISK

We are also exposed to challenges from changing demographics that may prevent us from attracting and retaining qualified employees for key roles. To counter this, as part of our proactive workforce planning, the organization develops succession plans and updates expectations for the requisite employee complement.

### DATA RISK

To fulfill our safety mandate Technical Safety BC collects, among other information, individuals' names, addresses, and contact details. Access to personal information is subject to BC's *Freedom of Information and Protection of Privacy Act*. Our Data Governance practices, complemented by our information security program, include practices to prevent and detect unauthorized access, misuse or loss, and involves regular employee education, ongoing vulnerability assessments and implementation of security best practices applicable to our circumstances.

### FINANCIAL RISK

Financial risk includes concerns about threats to revenue and the possibility that prime sources of income could shrink. Global economies continue to face challenges arising from weak oil and gas prices and international trade disputes. As the economy moves into the contraction phase of the business cycle, Technical Safety BC's clients will adjust their activities in response. Declining permit volumes, particularly installation permits, are expected to negatively impact our revenues. We mitigate the impact of declining revenues during economic contraction through cost reduction measures and the use of our reserve funds. Safety operations will continue to ensure all work is appropriately permitted.

Financial risk is also mitigated through our financial investments, capital reserves, and our liquidity. Liquid assets amount to 70% of the total assets on our balance sheet. A conservative portfolio of our financial investments is managed by our investment advisors and is invested in short term bonds and Canadian dividend producing equities in accordance with Technical Safety BC's investment policy. In 2018, as we continued to step up our investment in safety oversight initiatives, our operating reserves declined below the 15% target. Our [three-year business plan](#) carefully outlines how we will bring our operating reserve back to the target level of 15% by the end of 2021.

## OUTLOOK

### LOOKING AHEAD

IN 2019 WE WILL EVOLVE OUR 10-YEAR STRATEGY, BUILDING ON OUR CAPABILITIES AS A KNOWLEDGE-BASED AND DATA-DRIVEN ORGANIZATION TO DELIVER PRODUCTS AND SERVICES IN SUPPORT OF BC'S EVOLVING SAFETY SYSTEM.

The [2019 Business Plan](#) provides for continued innovation to increase the effectiveness of our safety [hazard assessments](#) and drive participation in the safety system. We will increase participants' knowledge so that they can better manage safety risks over the entire lifecycle of the technical equipment. We will also continue to build partnerships and share what we learn. Initiatives to build on these priorities have been funded through a careful review of spending requirements and expected revenue.

Revenues are expected to increase slightly in 2019. BC's economy is expected to remain relatively strong with low unemployment and projected growth in commercial construction, including new LNG developments in the north. Continued focus on compliance and enforcement is also expected to support revenue growth as we increase the level of participation in the safety system. Operating costs for 2019 have been reviewed to control costs that will allow us to continue with the innovation required to achieve our business plan.

Table 4, below, illustrates 2019–2021 projections.

There are numerous factors, some beyond our control, which could cause results to vary from expectations. A key risk to the projected results is the strength of the provincial economy.

**TABLE 4: PROJECTED RESULTS 2019–2021**

2019 – 2021 PROJECTIONS (\$'000S)	2019	2020	2021
Service and related fees	66,122	67,727	70,425
New business initiatives	2,162	2,545	1,888
Investment and other income	1,275	1,326	1,380
Total revenue	68,559	71,598	73,703
Expenses	(68,559)	(71,598)	(73,703)
Excess of revenue over expenses	–	–	–

## MANAGING REVENUES

For 2019, we anticipate revenues of \$68.6 million. This builds on our 2018 revenue with a conservative projected increase in installation permit volumes and modest revenue growth from new initiatives. The projection includes approved 2019 fee increases of 2% for the Electrical; Gas; Elevating Devices; and Boilers, Pressure Vessels, and Refrigeration technologies.

## MANAGING OPERATING EXPENSES

Technical Safety BC makes every effort to deliver necessary safety programs as efficiently and cost effectively as possible. Our balanced 2019 operating budget will provide Technical Safety BC with the necessary resources to perform our mandated services. We anticipate that our operating expenses will remain in line with our revenue growth in 2020 and 2021.

## INVESTING IN INFRASTRUCTURE

Capital spending in 2019 is focused on advancing our strategic objectives through improved technology and increased presence in the province. We have budgeted \$5.4 million in capital expenditures of which \$2.3 million relates to information technology innovation, \$1.1 million relates to the replacement of vehicles, and \$2.0 million relates to leasehold improvements in the regions. 2019 will be the first year of a five-year facilities strategy to improve Technical Safety BC's presence throughout the province which aligns with the long-term expected growth in the BC economy.

A man wearing a white hard hat with the 'TECHNICAL SAFETY BC' logo and a safety vest over a plaid shirt is working on a laptop. He is outdoors, with a white vehicle and trees in the background. The image has a blue tint. A red line is visible on the right side of the image.

# FINANCIAL STATEMENTS

FINANCIAL STATEMENTS OF BRITISH COLUMBIA SAFETY AUTHORITY  
(DBA TECHNICAL SAFETY BC). YEAR ENDED DECEMBER 31, 2018



## INDEPENDENT AUDITORS' REPORT

To the Board of Directors of British Columbia Safety Authority

### Opinion

We have audited the financial statements of British Columbia Safety Authority (the "Entity"), which comprise:

- the statement of financial position as at December 31, 2018
- the statement of operations for the year then ended
- the statement of changes net assets for the year then ended
- the statement of cash flows for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Entity as at December 31, 2018, and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

### Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *"Auditors' Responsibilities for the Audit of the Financial Statements"* section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.





## INDEPENDENT AUDITORS' REPORT *CONTINUED*

### **Auditors' Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.  
The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

### **Chartered Professional Accountants**

Vancouver, Canada

March 14, 2019

# BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)

## STATEMENT OF FINANCIAL POSITION

Year ended December 31, 2018, with comparative information for 2017

	2018	2017
<b>ASSETS</b>		
Current assets:		
Cash	\$ 5,689,793	\$ 7,400,143
Accounts receivable (note 3)	2,946,335	3,174,064
Leasehold inducement receivable (note 4)	–	2,880,790
Prepaid expenses	1,244,295	1,280,232
Investments (note 5)	5,432,000	6,500,000
	\$ 15,312,423	\$ 21,235,229
Investments (note 5)	24,443,223	23,065,177
Intangible assets (note 6)	4,263,880	5,483,291
Property and equipment (note 7)	11,472,951	7,583,222
	<b>\$ 55,492,477</b>	<b>\$ 57,366,919</b>
<b>LIABILITIES AND NET ASSETS</b>		
Current liabilities:		
Accounts payable and accrued liabilities (note 8)	\$ 7,059,812	\$ 7,812,168
Deferred revenue	16,234,035	15,948,765
Current portion of capital lease obligation (note 9)	65,306	62,756
Current portion of deferred leasehold inducements (note 10)	320,030	328,492
	23,679,183	24,152,181
Capital lease obligation (note 9)	181,257	246,564
Deferred leasehold inducements (note 10)	3,695,502	2,684,697
Accrued employee future benefits (note 11(b))	629,322	670,238
Asset retirement obligation (note 12)	83,238	–
	28,268,502	27,753,680
<b>Net Assets:</b>		
Investment in property, equipment and intangible assets	15,490,268	12,757,194
Internally restricted:		
Education reserve	429,122	232,860
Capital reserve	5,432,000	6,500,000
Unrestricted operating reserve	5,872,585	10,123,185
	27,223,975	29,613,239
Commitments (note 16)		
Contingencies (note 17)		
	<b>\$55,492,477</b>	<b>\$57,366,919</b>

See accompanying notes to financial statements.

Approved on behalf of the Board:

  
\_\_\_\_\_  
DIRECTOR

  
\_\_\_\_\_  
DIRECTOR

## BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)

# STATEMENTS OF OPERATIONS

Year ended December 31, 2018, with comparative information for 2017

	2018	2017
<b>REVENUE</b>		
Services and related fees (note 13)	\$ 64,723,925	\$ 60,227,584
Investment and other income (note 14)	879,512	1,262,237
	65,603,437	61,489,821
<b>EXPENSES:</b>		
Salaries and benefits	44,332,073	39,885,474
General, operating and administration	7,479,518	6,258,765
Amortization and writedown of property, equipment and intangible assets (notes 6 and 7)	4,398,200	4,077,354
Building occupancy	5,020,044	3,032,734
Communications and information services	3,529,035	3,245,055
Transportation	2,553,176	2,357,854
Corporate governance	515,708	494,019
	67,827,754	59,351,255
<b>Excess (deficiency) of revenue over expenses</b>	<b>\$ (2,224,317)</b>	<b>\$ 2,138,566</b>

See accompanying notes to financial statements.

## BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC) CHANGES IN NET ASSETS

Year ended December 31, 2018, with comparative information for 2017

					2018	2017
	INVESTMENT IN PROPERTY & EQUIPMENT & INTANGIBLE ASSETS	EDUCATION RESERVE	CAPITAL RESERVE	OPERATING RESERVE	TOTAL	TOTAL
Net assets, beginning of year	\$ 12,757,194	\$ 232,860	\$ 6,500,000	\$ 10,123,185	\$ 29,613,239	\$ 27,417,755
Excess (deficiency) of revenue over expenses	(4,398,200)	-	-	2,173,883	(2,224,317)	2,138,566
Remeasurement gain (loss) on accrued employee future benefits (note 11(b))	-	-	-	(164,947)	(164,947)	56,918
Net investment in property, equipment & intangible assets	7,131,274	-	(7,068,520)	(62,754)	-	-
Interfund transfer (note 15)	-	196,262	6,000,520	(6,196,782)	-	-
<b>Net assets, end of year</b>	<b>\$ 15,490,268</b>	<b>\$ 429,122</b>	<b>\$ 5,432,000</b>	<b>\$ 5,872,585</b>	<b>\$ 27,223,975</b>	<b>\$ 29,613,239</b>

See accompanying notes to financial statements.

## BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)

### STATEMENTS OF CASH FLOWS

Year ended December 31, 2018, with comparative information for 2017

	2018	2017
Cash provided by (used in):		
Operating		
Excess (deficiency) of revenue over expenses	\$ (2,224,317)	\$ 2,138,566
Items not involving cash:		
Amortization of deferred leasehold inducements	(372,422)	(105,923)
Amortization of property, equipment and intangible assets	4,216,308	4,039,822
Gain on disposal of property and equipment	(142,746)	(92,599)
Writedown of property, equipment and intangible assets	181,892	37,532
Accretion of asset retirement obligation	1,238	-
Change in fair value of investments	473,503	(253,413)
Change in accrued employee future benefits	(205,863)	7,835
Net changes in non-cash working capital items (note 18)	2,677,370	(1,227,356)
	4,604,963	4,544,464
Financing		
Deferred leasehold inducement	1,374,765	2,880,790
Principal payments on capital lease obligation	(62,757)	(25,420)
	1,312,008	2,855,370
Investments		
Purchase of property and equipment	(6,226,486)	(4,765,319)
Proceeds from disposal of property and equipment	142,747	109,660
Purchase of intangible assets	(760,033)	(925,979)
Interest on investments re-invested	(783,549)	(446,610)
	(7,627,321)	(6,028,248)
Increase in cash	(1,710,350)	1,371,586
Cash, beginning of year	7,400,143	6,028,557
Cash, end of year	\$ 5,689,793	\$ 7,400,143
Non-cash transactions		
Property and equipment financed by capital lease	\$ -	\$ 334,740
Asset retirement obligation	82,000	-

See accompanying notes to financial statements.

## BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC) NOTES TO FINANCIAL STATEMENTS

Year ended December 31, 2018

### 1. OPERATIONS:

British Columbia Safety Authority ("BCSA") (dba Technical Safety BC) is a not-for-profit organization incorporated through the *Safety Authority Act*. BCSA administers the service delivery components of the *Safety Standards Act* delegated to it by the Province of British Columbia. The delegation of authority is based on an Administrative Agreement between the Province of British Columbia and BCSA. The Administrative Agreement establishes the rights and responsibilities and terms and conditions of both parties. BCSA is exempt from income taxes.

BCSA delivers services in British Columbia by partnering with business, industry and the general public to enhance the safety of technical systems, products, equipment and work. BCSA is responsible for overseeing the safety of electrical equipment and systems, boilers, pressure vessels and refrigeration systems, natural gas and propane appliances and systems, elevating devices, railways, passenger ropeways and amusement devices.

All other revenue is recognized when the services are performed and the amount is received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

#### (c) Net assets:

- (i) Investment in property, equipment and intangible assets:

These net assets represent the investment that BCSA has made in property, equipment and intangible assets.

- (ii) Education reserve:

In accordance with the *Safety Standards Act*, BCSA established the education reserve to reserve monetary penalties collected by BCSA to be expended on accident prevention and safety education programs.

- (iii) Capital reserve:

The capital reserve was established to fund long-term capital investment projects, such as the modernization of facilities and information technology systems.

- (iv) Operating reserve:

The operating reserve represents the accumulated unrestricted surplus of BCSA.

### 2. SIGNIFICANT ACCOUNTING POLICIES:

#### (a) Basis of presentation:

These financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations as recommended by the Chartered Professional Accountants Canada.

#### (b) Revenue recognition:

Fees that cover a specific period are recognized as revenue evenly over that period. Fees that do not cover a specific period and are earned over a period of time are recognized as revenue over an estimated period that is based on past history. In both cases, unearned fees are recorded as deferred revenue.

#### (d) Investments:

Investments are carried at fair value based on published quoted prices at year-end. All investments are held in pooled funds. Investment income and changes in fair value are recognized in the statement of operations.

Short-term investments include those investments which BCSA intends to hold for capital projects in the next fiscal year. Investments that are expected to be realized beyond the next fiscal year are classified as long-term.

# BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)

## NOTES TO FINANCIAL STATEMENTS *CONTINUED*

Year ended December 31, 2018

### 2. SIGNIFICANT ACCOUNTING POLICIES *CONTINUED*:

#### (e) Intangible assets:

BCSA customizes third-party software for internal use. All intangible assets are recorded at cost. Direct costs attributable to new customizations or significant modifications to previous customizations are capitalized after the technological feasibility has been established. Direct costs attributable to major safety program development are capitalized. Direct costs attributable to minor modifications of previous customization, and costs to support or service internally customized third-party software are expensed in the period incurred.

When an intangible asset no longer has any long-term service potential to BCSA, the excess of its net carrying amount over any residual value will be recognized as an expense in the statement of operation.

Amortization commences when the software is brought into service. The software is amortized using the straight-line method over the estimated useful lives of the assets at the following annual rates:

ASSET	BASIS
Software systems	4 to 8 years
Safety program software development costs	5 years

#### (f) Property and equipment:

Property and equipment are recorded at cost. Repairs and maintenance costs are recorded as expenses. Betterments which extend the life of an asset are capitalized. When property and equipment no longer contribute to BCSA's ability to provide services, its carrying amount is written down to its residual value. Amortization of property and equipment commences when it is brought into service. The assets are amortized using the straight-line method over

the estimated useful lives of the assets at the following annual rates:

ASSET	BASIS
Computer hardware	3 to 5 years
Vehicles	5 years
Furniture and equipment	5 years
Leasehold improvements	term of the lease
Leased property and equipment	term of the lease

Leases, which transfer substantially all of the benefits and risks incidental to ownership of property, are accounted for as leased property and equipment. All other leases are accounted for as operating leases and the related payments are charged to expenses as incurred.

#### (g) Deferred leasehold inducements:

Deferred leasehold inducements include amounts received in lease agreements related to leasehold improvements. Amortization of deferred leasehold inducements is recognized over the initial term of the lease, including any rent-free periods, on a straight-line basis against building occupancy expense.

#### (h) Employee future benefits:

BCSA accrues its obligations under defined benefit plans as the employees render the services necessary to earn the benefits. Actuarial gains (losses) on the accrued benefit obligation arising from differences between actual and expected experience are recognized immediately. Actuarial assumption changes resulting in remeasurement are recognized directly in net assets in the period they occur.

BCSA is a participating employer of the Public Service Pension Plan, a jointly trustee pension plan. The pension plan is a multiemployer plan and



as a result, required contributions are expensed as incurred. The plan records accrued liabilities and accrued assets for the plan in aggregate, resulting in no consistent and reliable basis for allocating the obligation, assets and cost to individual employers participating in the plan.

**(i) Asset retirement obligation:**

BCSA recognizes a future asset retirement obligation as a liability in the year in which it incurs a legal obligation associated with the retirement of a tangible long-lived asset that results from the acquisition, construction, development, and/or normal use of the asset based on management's best estimate of the expenditure required to settle the obligation. The BCSA concurrently recognizes a corresponding increase in the carrying amount of the related long-lived asset.

The amount of the asset retirement obligation is estimated using the expected cash flow approach that reflects a range of possible outcomes discounted at a risk-free interest rate based on management's best estimate. Subsequent to the initial measurement, the asset retirement obligation is adjusted at the end of each year to reflect the passage of time and changes in the estimated future cash flows underlying the obligation. Changes in the obligation due to the passage of time are recognized as an expense using the effective interest method. Changes in the obligation due to changes in estimated cash flows are recognized as an adjustment of the carrying amount of the related long-lived asset.

**(j) Use of estimates:**

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue

and expenses during the year. In particular, management makes estimates to determine the useful lives of property, equipment and intangible assets, the period over which deferred revenue is recognized as revenue, accrued employee future benefits at the end of the year, and the asset retirement obligation. Actual results could differ from those estimates.

**(k) Financial instruments:**

BCSA's financial instruments consist of cash, accounts receivable, leasehold inducement receivable, investments, and payables and accruals. Cash, accounts receivable, leasehold inducement receivable, and payables and accruals are initially recorded at fair value and subsequently recorded at cost or amortized cost. Investments are initially measured at fair value, and also subsequently carried at fair value, with changes in fair value recognized in the statement of operations.

The carrying value of accounts receivable, leasehold inducement receivable and payables and accruals approximates fair value as at December 31, 2018 and 2017.

BCSA classifies financial instruments measured at fair value into one of three levels of a fair value hierarchy according to the relative reliability of the inputs used to estimate the fair values:

- Level 1 – quoted prices in active markets;
- Level 2 – measurements determined using valuation models that employ observable inputs; and
- Level 3 – measurements determined using valuation models that employ unobservable inputs.

All investments held by BCSA at December 31, 2018 are considered Level 2 (2017 – Level 2).

BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)  
**NOTES TO FINANCIAL STATEMENTS *CONTINUED***

Year ended December 31, 2018

**3. ACCOUNTS RECEIVABLE:**

ASSET	2018	2017
Trade and other receivables	\$ 3,383,734	\$ 3,834,544
Allowance for doubtful accounts	(437,399)	(660,480)
	\$ 2,946,335	\$ 3,174,064

**4. LEASEHOLD INDUCEMENT RECEIVABLE:**

Under the terms of the lease agreement for BCSA's new corporate head office, in 2018, BCSA was fully reimbursed for costs incurred on leasehold improvements totaling \$3,386,985, of which \$2,880,790 was recorded as a receivable as at December 31, 2017.

**5. INVESTMENTS:**

BCSA manages its investment portfolio through a third party investment manager, who invests according to BCSA's investment policy. Investments are held in short-term bond and Canadian dividend funds.

	2018		2017	
	COST	FAIR VALUE	COST	FAIR VALUE
Short-term bond fund	\$ 24,111,026	\$ 24,139,535	\$ -	\$ -
Canadian dividend fund	5,649,080	5,735,688	4,350,982	4,941,623
Money market fund	-	-	24,623,554	24,623,554
	29,760,106	29,875,223	28,974,536	29,565,177

	2018	2017
Current portion	\$ 5,432,000	\$ 6,500,000
Long-term portion	24,443,223	23,065,177
	\$ 29,875,223	\$ 29,565,177

**6. INTANGIBLE ASSETS:**

	2018		2017
	COST	ACCUMULATED AMORTIZATION	NET BOOK VALUE
Software systems	\$ 18,228,483	\$ 14,522,360	\$ 3,706,123
Safety program software development costs	173,020	173,020	–
Software systems under development	557,757	–	557,757
	<u>\$ 18,959,260</u>	<u>\$ 14,695,380</u>	<u>\$ 4,263,880</u>
			\$ 5,483,291

Software systems include online transaction and reporting tools, the core production system and Human Resources Management System.

Intangible assets were written down by \$166,068 related to the retirement of business intelligence software that has been replaced (2017 – \$37,532 related to portion of core production system no longer in use). The writedown is included as an expense in the statement of operations.

**7. PROPERTY AND EQUIPMENT:**

	2018		2017
	COST	ACCUMULATED AMORTIZATION	NET BOOK VALUE
Computer hardware	\$ 5,253,751	\$ 3,637,171	\$ 1,616,580
Software systems integral to hardware operations	1,229,349	952,181	277,168
Vehicles	5,241,717	3,680,167	1,561,550
Furniture and equipment	4,749,625	2,540,361	2,209,264
Leasehold improvements	9,201,867	3,627,521	5,574,346
Leased property and equipment	334,740	100,697	234,043
	<u>\$ 26,011,049</u>	<u>\$ 14,538,098</u>	<u>\$ 11,472,951</u>
			\$ 7,583,222

Included in property and equipment is work in progress totalling \$845,652 (2017 – \$3,686,331) which has not been amortized.

In 2018, property and equipment were written down by \$15,824 (2017 – nil). The writedown is included as an expense in the statement of operations.

BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)  
**NOTES TO FINANCIAL STATEMENTS *CONTINUED***

Year ended December 31, 2018

**8. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES:**

	2018	2017
Trade payables and accruals	\$ 1,830,794	\$ 3,492,700
Government taxes and remittances	424,135	359,548
Wages and related costs payable	4,804,883	3,959,920
	<u>\$ 7,059,812</u>	<u>\$ 7,812,168</u>

Government remittances consist of amounts such as, sales taxes, Board of Directors' and employee payroll withholdings, employee benefit costs and worker's compensation premiums.

**9. CAPITAL LEASE OBLIGATION:**

BCSA has capital leases for vehicles with future minimum annual payments as follows:

2019	\$ 73,959
2020	73,959
2021	73,959
2022	43,141
Total minimum lease payments	265,018
Less amount representing interest at 3.99%	18,455
Present value of minimum capital lease payments	246,563
Current portion	65,306
Long-term portion	<u>\$ 181,257</u>

**10. DEFERRED LEASEHOLD INDUCEMENTS:**

In 2018, deferred leasehold inducements relate to leasehold improvements in the currently occupied Vancouver office, with estimated remaining lease term of 118 months.

	2018	2017
Deferred leasehold inducements, beginning of year	\$ 3,013,189	\$ 238,322
Leasehold inducements – Vancouver office	1,374,765	2,880,790
Less amortization recorded net of building occupancy expense	(372,422)	(105,923)
Deferred leasehold inducements, end of year	4,015,532	3,013,189
Current portion	320,030	328,492
Long-term portion	<u>\$ 3,695,502</u>	<u>\$ 2,684,697</u>

## 11. ACCRUED EMPLOYEE FUTURE BENEFITS:

### (a) Public Service Pension Plan:

BCSA and its permanent employees contribute to the Public Service Pension Plan, a jointly trustee pension plan. The Board of Trustees, representing plan members and employers, is responsible for overseeing the management of the pension plan, including asset investment and plan administration. The pension plan is a multi-employer contributory defined benefit pension plan with 62,000 active members and 48,000 retired members as at March 31, 2018.

Every three years, an actuarial valuation is performed to assess the financial position of the plan and the adequacy of the plan funding. The actuary determines an appropriate combined employer and member contribution rate to fund the plan. The actuary's calculated contribution rate is based on the entry-age normal cost method, which produces the long-term rate of member and employer contributions sufficient to provide benefits for average future entrants to the plan. This rate is then adjusted to the extent there is amortization of any funding deficit.

The latest valuation as at March 31, 2017 indicated a \$1.9 billion surplus for basic pension benefits on a going concern basis. The next valuation will be as at March 31, 2020.

Employer contributions to the Public Service Pension Plan during the year were \$3,240,380 (2017 – \$3,063,120).

### (b) Defined Supplemental Retirement Benefit Plan:

Under the collective agreement and terms of employment, BCSA accrues a provision for a Defined Supplemental Retirement Benefit Plan as employees render the services required to earn that benefit. Employees eligible to receive a benefit from the Public Service Pension Plan upon retirement and who have completed 20 years of service with BCSA are entitled to an additional benefit from the Defined Supplemental Retirement Benefit Plan. The additional benefit is calculated as one to three month's salary, based on the number of years of service between the employee's 20th and 30th year with BCSA (maximum).

BCSA accrues the cost of these employee future benefits over the periods in which the employees earn the benefit. The cost of employee future benefits is actuarially determined using the projected benefit method pro-rated on service and includes, but is not limited to, management estimate of future salary increases, the retirement age and date of employees and the discount rate. The discount rate used is based on market rates as at the measurement date. Actuarial gains (losses) arise from changes in actuarial assumptions used to determine the accrued benefit obligation. Past service costs from plan amendments and net actuarial gains or losses are recognized in the statement of changes in net assets in the period they occur.

BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)  
**NOTES TO FINANCIAL STATEMENTS *CONTINUED***

Year ended December 31, 2018

**11. ACCRUED EMPLOYEE FUTURE BENEFITS *CONTINUED*:**

The latest full actuarial valuation was at December 31, 2016. A full actuarial valuation is performed every three years. Extrapolations of the last valuation are performed by the actuary in years where a full valuation is not performed.

The following is the reconciliation of the accrued employee future benefits liability:

	2018	2017
Accrued employee future benefits, beginning of year	\$ 670,238	\$ 719,321
Current service cost	63,648	59,049
Interest cost	22,118	25,896
Benefits paid	(291,629)	(77,110)
Actuarial loss (gain)	164,947	(56,918)
Accrued employee future benefits, end of year	\$ 629,322	\$ 670,238

The expense for the plan is comprised of the following:

	2018	2017
Current service cost	\$ 63,648	\$ 59,049
Interest cost	22,118	25,896
Retirement benefit plan expense	\$ 85,766	\$ 84,945

The significant actuarial assumptions adopted in measuring the accrued benefit obligation are as follows:

	2018	2017
Discount rate	3.80%	3.30%
Rate of compensation increase	3.10%	3.10%

The accrued benefit obligation is not funded as funding is provided when benefits are paid. Accordingly, there are no plan assets.

**12. ASSET RETIREMENT OBLIGATION:**

In accordance with the lease agreement, BCSA is required to restore the leased space for its Vancouver office to its original condition at the end of the lease term. BCSA has recorded an asset retirement obligation amount of \$83,238 as at December 31, 2018 (2017 – nil).

**13. SERVICES AND RELATED FEES REVENUE:**

	2018	2017
Installation permits	\$ 37,588,491	\$ 33,405,574
Operating permits	15,582,264	16,074,285
Certification and licensing	4,212,530	3,701,207
Design registration	2,127,654	2,060,635
Inspections	2,115,545	2,016,701
ASA and ESA	1,295,648	1,177,400
Equipment approvals	976,910	1,129,379
Miscellaneous	824,883	662,403
	<b>\$ 64,723,925</b>	<b>\$ 60,227,584</b>

**14. INVESTMENT AND OTHER INCOME:**

	2018	2017
Investment income	\$ 802,547	\$ 465,349
Change in fair value on investments	(473,503)	253,413
	<b>329,044</b>	<b>718,762</b>
Interest income on cash balances	133,700	80,676
Gain on disposal of property and equipment	142,746	92,599
Monetary penalties issued	274,022	370,200
	<b>\$ 879,512</b>	<b>\$ 1,262,237</b>



BRITISH COLUMBIA SAFETY AUTHORITY (DBA TECHNICAL SAFETY BC)  
**NOTES TO FINANCIAL STATEMENTS *CONTINUED***

Year ended December 31, 2018

**15. INTERNAL FUND TRANSFERS:**

Internal fund transfers is comprised of the following:

**(a) Education reserve:**

Transfer of \$196,262 from the operating reserve to the internally restricted reserve for monetary penalties collected that will be expended on accident prevention and safety education programs.

**(b) Capital reserve:**

Transfer of \$6,000,520 from the operating reserve to the capital reserve to fund long-term capital investment projects.

**16. COMMITMENTS:**

**(a) Operating leases:**

BCSA leases office space with future minimum annual payments as follows:

2019	\$ 2,079,384
2020	2,028,447
2021	1,808,827
2022	1,729,000
Thereafter	9,485,845
	<u>\$ 17,131,503</u>

**(b) Line of credit:**

BCSA has an undrawn credit facility with a maximum borrowing capacity of \$2,000,000. This can be drawn at the greater of the prime lending rate and the 30 day Bankers' Acceptance CDOR rate plus 0.625%.

**17. CONTINGENCIES:**

In the ordinary course of operations, BCSA may be contingently liable for litigation and claims with customers, suppliers and employees. Specific claims have been brought against BCSA, the outcome of which is indeterminable at this time. Liabilities on any litigation are recognized in the financial statements when the outcome becomes reasonably determinable. In management's judgment, no material exposure exists on the eventual settlement of any existing litigation.

**18. CHANGE IN NON-CASH WORKING CAPITAL ACCOUNTS:**

	2018	2017
Accounts receivable	\$ 227,729	\$ (834,961)
Leasehold inducement receivable	2,880,790	(2,880,790)
Prepaid expenses	35,937	(186,642)
Accounts payable and accrued liabilities	(752,356)	2,025,163
Deferred revenue	285,270	649,874
	<u>\$ 2,677,370</u>	<u>\$ (1,227,356)</u>

**19. FINANCIAL INSTRUMENTS RISK, EXPOSURE AND MANAGEMENT:**

BCSA has exposure to the following risks from its financial instruments:

**(a) Credit risk:**

Credit risk is the risk of loss resulting from the failure of a customer or other debtor to honour its financial obligations. BCSA is exposed to credit risk with respect to the accounts receivable and leasehold inducement receivable. Trade accounts receivable over 120 days are reviewed quarterly. All amounts over \$2,500 are reviewed for collectability and specific provisions are made accordingly. For remaining accounts, management applies a general provision based on past experience of collection. There has been no change to the risk exposure in 2018.

**(b) Market risk:**

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Fair value risk is the potential for loss from an adverse movement in the value of a financial instrument. BCSA is exposed to fair value risk on its investments. BCSA is not significantly exposed to foreign currency risk or other price risk. There has been no change to the risk exposure in 2018.

**(c) Interest rate risk:**

Interest rate risk is the risk that BCSA's investments will change in fair value due to future fluctuations in market interest rates. The risk arises primarily on interest-bearing financial instruments held in pooled money market and Canadian dividend funds. There has been no change to the risk exposure in 2018.

**(d) Liquidity risk:**

Liquidity risk is the risk that BCSA will not be able to meet its financial obligations as they fall due. BCSA's approach to managing liquidity risk is to ensure that it will have a sufficient net monetary position and cash flow generated from operations to fund the operations and settle debt and liabilities when due. BCSA also maintains an operating reserve to mitigate this risk. There has been no change to the risk exposure in 2018.

# GLOSSARY

## ACCIDENT PREVENTION

Technical Safety BC's multi-faceted approach to managing technical systems safety risks through the four pillars of assessment, education and outreach, research, and enforcement.

## ALTERNATIVE SAFETY APPROACH

A performance-based approach to achieving compliance with the *Safety Standards Act*, which allows owners or operators of regulated product or equipment to meet safety objectives in ways other than those prescribed by the regulations.

## APPLICATION PROGRAM INTERFACE (API)

A set of routines, protocols, and tools for building software applications. An API specifies how software components should interact.

## AS-FOUND HAZARD

A condition found by safety officers during physical assessments, investigations, or audits of regulated work, products, equipment, or safety systems where intrinsic hazards are not suitably controlled. These conditions are rated on a scale out of 5 where 1 is minor and 5 is severe.

## ASSESSMENT

An evaluation or review of information relating to regulated work, product or equipment. Key Technical Safety BC activities in assessment are:

- Gathering of information through inspections (i.e., physical assessments) of reported hazards and work performed by contractors or homeowners;
- Gathering of evidence through incident investigations;
- Gathering of evidence through audits or documentation evaluations (of safety management plans for example);
- Reviews of requests for permission (such as permit or ASA applications);
- Reviews of declarations and reports from duty holders (includes incident reports);
- Reviews of qualifications for licensing or certification  
Reviews of product or equipment and designs when approving these for use in BC.

## ASSET

A person or company that owns or leases regulated products or equipment.

## DUTY

A person or company who is responsible for compliance because they either own regulated products, or perform regulated work.

## FAULT TREE

A top-down, deductive failure analysis in which an undesired state of a system is analyzed using Boolean logic to combine a series of lower-level events.

**HAZARD**

A source of potential harm to persons or potential damage to property.

**HIGH TECHNICAL SAFETY**

Future safety incidents that are relatively likely to occur and have a major impact on public safety.

**INCIDENT**

A failure of a regulated product, work or operation that causes:

- a. damage to property, personal injury or death and/or
- b. damage to safety features.

**INSPECTION**

A type of physical assessment where the regulated product, equipment or work has been directly evaluated by Technical Safety BC.

**INTERVENTION**

A combination of program elements or strategies designed to produce behavior change or improve outcomes. Interventions may include educational programs, new or stronger policies, enforcement activities, improvements in the environment, or promotional campaigns.

**INVESTIGATION**

The systematic collection, evaluation, and analysis of facts and information related to a regulated product or work.

**MACHINE-ASSISTED ASSESSMENT**

The use of information technology to assist human beings in collecting data, analyzing data, and making decisions.

**PREDICTIVE ALGORITHM**

A computational algorithm that produces a prediction score from an explicit set of rules and/or a set of data.

**RESOURCE ALLOCATION PROGRAM (RAP)**

A rating program which uses risk-informed criteria to establish work priorities and the allocation of resources. RAP uses current and historical data which is based on the scope and stage of work being performed; equipment environment; and safety history.

**RISK**

The probability of a consequence; the potential for an occurrence.

**RISK TREATMENT**

A document that specifies concrete activities to reduce a risk.

**STRUCTURED RESOURCE ALLOCATION**

A data-driven program that provides for a balanced use of safety officer time – focused on finding high hazard sites using predictive models, random sampling to understand market segments, rules to cover policy priorities, and local safety officer insight on how to maximize overall impact.