





Table of Contents

Message from the Chair
Message from the Executive Director 3
PART 1 – About BC Crane Safety
Our Guiding Principles
Our Board of Directors
Our Staff
Our History
BC Crane Safety Historical Milestones 17
PART 2 – 2019 Highlights
Ongoing Activities
Certifications and Assessments 23
Recognizing Foreign Credentials 24
Women in the Crane Trades 25
Standards Development
Resources and Supports for
Safe Crane Operations 28
Communications 29
PART 3 – Looking Ahead
PART 4 – Financial Statements

The BC Association for Crane Safety (BC Crane Safety) provides leadership for health and safety development within the crane and hoisting industry.

Photography by Fraser Cocks
Images of Directors supplied by themselves
Writing and Editing by Michelle Harding
Design and Layout by TAP Graphics Ltd.

Message from the Chair

Ryan Burton



I started working with cranes in 1992, building the Island Highway in BC. I was pretty much self-taught at the time, and that is a scary thought.

Things have changed dramatically. When I look back at how I, and everyone else, ran cranes back then I can see how the whole culture of crane operations, especially attitudes towards safety, is incredibly different now.

BC Crane Safety has been a driving force in this culture shift. I have been a member of the Board of Directors since 2011 and I've been Chair since 2017. I also serve on the Board of the Crane Rental Association of Canada and I am the managing director of Bigfoot Crane Company in Abbotsford, BC. I consider it an honour and a responsibility to be able to contribute to the safety of crane operations in this province and beyond.

It is hard to believe that there was ever a time when crane operators did not have to undergo any kind of formal assessment or verification of their competencies while hairdressers, for example, did. But that's what it used to be like in BC.

Now we have a certification system that is recognized throughout the world as being absolutely top-notch. We have people from other jurisdictions modelling their certification systems on ours.

The safety of crane operations is extremely important to me. As an operator myself, and as an employer, I can't even think of sending someone out to an unsafe work situation. That's why my focus is on collaboration with other companies, WorkSafeBC, and serving groups such as BC Crane Safety to ensure that everyone, whether an operator or member of the general public, goes home safely at the end of every day.

I want to thank the BC Crane Safety Board, past and present, as well as our staff for their commitment, expertise and hard work over the past 15 years. Along with our many contributors – stakeholders in a wide range of different industries and provincial regions – you have made BC Crane Safety a global leader in occupational certification.

Here's to another 15 years of success and innovation!

State

Message from the Executive Director

Fraser Cocks



Back in 2005, I was working as a curriculum co-ordinator with the International Union of Operating Engineers. WorkSafeBC had begun to explore the development of a new crane operator certification system for BC in 2004. I was asked to lead. Why me? I happened to be in the centre of the storm, so to speak, behind the scenes on all fronts.

There had been a previous system, but it was not enforceable and referenced an apprenticeship program that no longer existed. BC Crane Safety was formed to fix that problem and it was a big one.

Getting to where we are now has not always been easy or straightforward. The general public often thinks of construction being the only industry that uses cranes, but that is simply not the case. The safety of crane operations impacts approximately 70 different industry classification units in BC – construction of all kinds, of course, but also a diversity of industries only a few of which include resource development, utilities, film and television, fish farming, recycling, even emergency response.

This is one of the reasons that developing the BC certification model has been so challenging. Thanks to the expertise of literally hundreds of collaborators over the years, BC Crane Safety has answered that challenge by creating a model that is based on a common core of competencies that is applicable across industry sectors. It doesn't matter whether the operator is working on a construction site, a movie set or at a sawmill, the basic standards for safe operations are the same. Assessments are based on expert observation and evaluation of an operator's ability to demonstrate mastery of these competencies. It is an industry-driven, streamlined process that is affordable, accessible and verifiable across industries and across the province.

The effectiveness of our made-in-BC certification model is widely acknowledged. In our work to align our standards and model with other jurisdictions in Canada, the United States, the European Union, the United Kingdom and Ireland, it has been made abundantly clear that our certification system meets, and very often exceeds, global standards.

I am very proud of what we've been able to achieve in the past 15 years and as I prepare to pass the reins of the Association to a new Executive Director in 2020, I know that we have created a world-class model that is having, and will continue to have, enormous impact in BC and well beyond.

PART 1 – About BC Crane Safety

Crane Certification & Licensing Authority for BC

The idea of creating a certification and licensing authority for crane operations in BC emerged in late 2004 and, through active engagement of industry leaders with a clear vision, immediately started to become a reality. BC Crane Safety was officially incorporated as the BC Association for Crane Safety in 2005.

This annual report marks our 15th anniversary of operations.

BC Crane Safety is responsible for the overall administration of crane operator certification in British Columbia. We provide leadership and support for health and safety development for crane hoisting operations. BC Crane Safety serves as an advisory body on regulatory and safety matters. We work closely with industry, labour and government to develop, maintain and implement standards of assessment and certification. We provide leadership in the establishment, maintenance and support of industry specific assessment tools (theoretical and practical) which form the foundation of a BC Crane Operator designation.



We are primarily funded by WorkSafeBC and we thank them for 15 years of continuous support, collaboration and innovation. The partnership between WorkSafeBC and BC Crane Safety has resulted in a competency-based certification system that has become a model for jurisdictions around the world. The third-party assessment model we have adopted in BC defines the role of BC Crane Safety as one of oversight and responsibility for quality assurance. It gives us the authority to validate and issue credentials. While we are not a training organization or an assessment body, we are responsible for setting and maintaining training, occupational assessment and certification standards and protocols in six classifications for 11 crane types.

Our made-in-BC certification model has been recognized and emulated by jurisdictions within and outside Canada. Our efforts to align our processes with other Canadian provinces and territories, US states, and the European Union continue to result in Mutual Recognition Agreements (MRAs) that support the labour mobility that is vital to our economy.

Our top focus is, and will always be, the promotion of the health and safety of workplaces, workers and the public. That is why we liaise with industry stakeholders, government and health and safety authorities within BC, across Canada, and internationally, looking at trends and "next practices" that impact all of our stakeholders including the many industries that benefit from safe, effective crane operations.

Our Collaborators

Over the past 15 years, BC Crane Safety has consulted with hundreds of individuals – crane operators, owners, suppliers, manufacturers, employers and many more throughout Canada and beyond. Without their contributions, we would not be where we are today, and we thank everyone who has given their valuable time and expertise to develop our world-class certification scheme. In addition, BC Crane Safety would like to acknowledge the contributions of some of our key collaborators including:

- WorkSafeBC
- Government of British Columbia Industry Training Authority (ITA BC)
- Fulford Certification
- Yukon Workers' Compensation Health and Safety Board
- Employment and Social Development Canada
- International Union of Operating Engineers (IUOE)
- Engineers and Geoscientists BC (EGBC)
- Technical Safety BC
- BC Ministry of Jobs, Tourism and Skills Training
- City of Vancouver
- Metro Vancouver
- Standards Council of Canada (SCC)
- Canadian Standards Association (CSA)
- Crane Rental Association of Canada (CRAC)
- Canadian Hoisting and Rigging Safety Council (CHRSC)
- Occupational Health and Safety Administration (OSHA)
- European Crane Operators Licence (ECOL)
- European Association of Abnormal Transport and Mobile Cranes (ESTA)

WorkSafeBC Authorized Crane Operator Certification Agency

In 2004, WorkSafeBC envisioned the creation of a certifying body for crane operations in BC. Following dozens of stakeholder consultations, BC Crane Safety was officially incorporated as the British Columbia Association for Crane Safety in 2005. WorkSafeBC has been the primary funder of BC Crane Safety ever since. We gratefully acknowledge the continuing support and constant collaboration of WorkSafeBC.

As part of the ongoing effort to support the Health and Safety Associations (HSAs) in planning, reporting on and assessing activities and outcomes, WorkSafeBC provides annual funding to provincial industry associations. As an HSA that includes stakeholder interests in a very wide diversity of industries across the province, BC Crane Safety is uniquely funded through employer contributions from multiple industry sectors.

The WorkSafeBC funding system and process allows safety associations to:

- Address major challenges that the HSAs have identified
- Align their HSA Initiatives with other key injury and incident drivers
- Report on initiative outcomes
- Promote the prevention of occupational injury and disease and the safe return to work of injured workers.

In addition, through WorkSafeBC support, HSAs are able to provide sector specific resources to industry stakeholders to further the promotion of safe workplaces.



Spotlight on Yukon Workers' Compensation Health and Safety Board

Yukon Workers' Compensation Health and Safety Board and Yukon crane-using industries have a longstanding co-operation with BC Crane Safety. Yukon crane operators are certified under the same parameters as BC crane operators. This automatically provides Yukon crane operators the same national and international mobility for the affected crane classifications as BC crane operators.



The Yukon-BC relationship has been going strong since the very early days of the development of the BC Crane Safety certification program. Yukon Workers' Compensation Health and Safety Board has played an indispensable role in the development of certification standards, the certification model itself and holds a non-voting position on the BC Crane Safety Board of Directors. Both jurisdictions instituted changes to their respective Occupational Health and Safety Regulations in tandem, with parallel requirements for competency assessments and certification. This is the basis for the legal requirement for crane operator certification and the foundation for mutual agreement on the use of the same standards and assessment system in both BC and the Yukon.

When BC's new regulatory requirements went into effect in July 2007, BC Crane Safety leadership used a collaborative approach to guide and establish the new certification scheme, which involved a working partnership with WorkSafeBC, Yukon Workers' Compensation Health and Safety Board, the BC Industry Training Authority (ITA) and industry stakeholders. This group spent three years developing an industry-driven crane operator certification system with an accompanying business model. This enabled BC Crane Safety to create a crane operator certification program that met safety, public and industry needs as well as regional and national standards in Canada.

The shared goal is, and has always been, to promote safe crane operations, operator mobility and industry efficiency.

With funding support from WorkSafeBC, BC Crane Safety led the development of BC crane operator standards across the full range of industry-identified crane classifications. The Yukon, through the Yukon Workers' Compensation Health and Safety Board, adopted the resulting crane operator certification scheme for crane operators in the Yukon Territory and reflected this in their Regulation Part 5: Cranes, Hoisting and Lifting.

As the certification scheme was developed and piloted, the Yukon Workers' Compensation Health and Safety Board participated every step of the way. In fact, the first competency assessments delivered under the new certification program were conducted in the Yukon Territory.

By virtue of their co-operative agreement, crane operators and employers in both BC and the Yukon have access to a streamlined career path and the support mechanisms that can help them get the information and training they need. BC Crane Safety has an administrative and oversight role, maintaining the training, certification and maintenance standards and supports such as the registration system and online logbooks. Theoretical and practical preparatory training is provided in the Yukon through the Yukon University and, through private-sector collaboration, ATCO Electric provides participants with training specific to utilities infrastructure. Competency assessments are delivered by BC-based Fulford Certification on behalf of BC Crane Safety.

Since certified operators in BC and the Yukon Territory hold the same credentials, both jurisdictions enjoy inter-provincial labour mobility. They are also able to take advantage of Mutual Recognition Agreements with US jurisdictions, Ireland, the UK and, in the near future, the European Union.



Our Guiding Principles

The **vision** of BC Crane Safety is:

Safe and effective crane, hoisting and rigging operations throughout British Columbia.

The **mission** of BC Crane Safety is:

To engage with our stakeholders concerned with cranes, hoists and rigging, including employers & workers, across multiple sectors to support safe crane and hoisting operations in British Columbia.

The **mandate** of BC Crane Safety is shown in the graphic below.

Organizational objectives include:

- Promoting accident-free crane operations throughout British Columbia
- Establishing and maintaining a British Columbia cost-effective crane operator qualification regime that:
 - Involves documented proof of competency
 - Includes theoretical and practical assessments
 - Is accessible and available at all levels of the industry
- Promoting the attractiveness of the industry to prospective entry-level crane operators and the timely achievement of their qualifications
 - Serving as an industry advisory body to agencies in a position to oversee qualifications and standards
 - Serving as an advisory body to the Workers' Compensation Board of British Columbia (WorkSafeBC) regarding regulatory matters and other matters related to occupational health and safety as they impact the crane industry.

ROUTINE WORK - MANDATE

Integrity

Compliance with privacy requirements and similar legislation

certification resources

- Review and revision to internal and external processes and systems
- · Communication to employer & workers · Ensuring accessible and accurate

MANDATE 1

Maintain the integrity, validity and reliability of crane operator certification and licensing within British Columbia

Identification of alternate practice

Identification of

current practices

- Evaluation of industry practices
- Engagement with stakeholders:
- Manufacturers
 - Owners/Employers

Reliability

Quality control & quality

assurance activities

engagement

- Operators
 - Regulator
 - · Identification or design of performance/ competency standards

Collaborate with industry

and other stakeholders

to identify and promote

industry practices that

support safe and

effective crane &

hoisting

operations

- Advocate for standards. policies and regulations that support safe and effective crane operations in BC through stakeholder engagement and advisory
- groups
 - Council of Canada Engagement with industry representation with CSA

Validity

Research and

development activities

Activities that support

Engagement and

tation with ISO

Engagement and

industry represen-

tation with Standards

industry represen-

harmonization and

labour mobility

Content moderation

and validation

- $Implementation \, of \, MOUs \,$ and Mutual Recognition Agreements (MRAs)
- · Research (practices)
- · Research (incidents & claims)
- Engagement with the Technical Advisory Committee

Our Values

- Innovation Accountability
- Evidence-based Fairness
- Service Collaboration
- Stewardship Effectiveness
- Sustainability
 Leadership
- Transparency Integrity Expertise
- Partnership Professionalism

Our Board of Directors

Governance

The BC Crane Safety Board consists of ten voting members and five non-voting members.

- Up to two non-voting members are representatives from WorkSafeBC
- One non-voting member is a representative from Yukon Workers' Compensation Health and Safety Board
- One non-voting member is the Association's Executive Director.

We are a stakeholder Board. Only those who own or operate cranes or are employers of crane operators may qualify as voting members. Board members are selected representatives from employers, contractors and companies that work in, or directly support, crane operations.

Every effort is made to appropriately represent:

Crane types, including

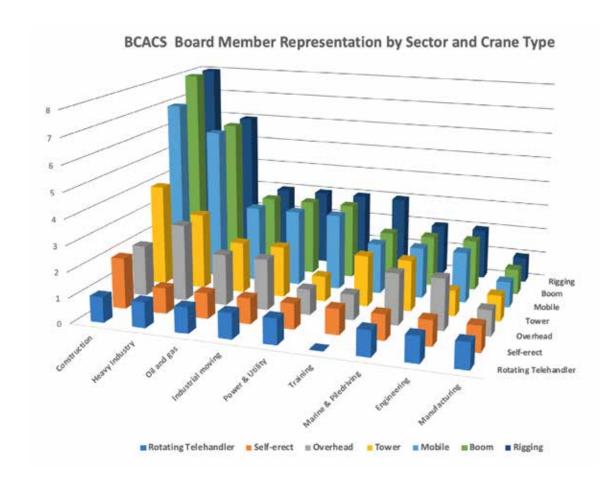
- Mobile cranes
- Tower cranes
- Boom trucks
- Self-erect cranes

Industry sectors, including

- Heavy industry
- Power and utility
- Engineering
- Marine and piledriving
- Construction

Regions in BC, including

- Lower Mainland
- Vancouver Island
- Interior
- North



Our Board of Directors



Ryan Burton (Chair)

Bigfoot Crane Company, Abbotsford, BC

Ryan Burton moved from Alberta to BC and learned to operate hydraulic cranes while building the Island Highway in the early 1990s. Since then, he worked his way up from Operator to Sales and then into the General Manager role with Eagle West Cranes. Currently, Ryan is the Managing Director at Bigfoot Crane Company. He sits on the Executive at the Crane Rental Association of Canada and is the Chair of BC Crane Safety.





Clinton Connell (Vice Chair)

Eagle West Truck & Crane, Abbotsford, BC

Clinton Connell is the Branch Manager for all BC locations of Eagle West Crane & Rigging.
Eagle West is a COR-certified company that supplies multiple industries with crane and rigging services, as well as industrial moving and precast concrete products. Clinton's experience and expertise has been an asset to BC Crane Safety since 2011, and he is currently the Vice-Chair of the Board. Clinton also serves on the BC Trucking Association Board of Directors.





Shawn Lynch (Treasurer)

Convoy Supply, Surrey, BC

Shawn Lynch has served on the BC Crane Safety Board of Directors since 2013. He is the Health and Safety Environmental Manager for Convoy Supply (Canada/USA). Before that, he worked as a health and safety manager with major developers on residential, commercial and infrastructure projects in the BC Lower Mainland for 11 years. After he completed his university degree, he served as an Army medic in Europe and the Middle East.









Steve Gibson

Kiewit, Edmonton, AB

Steve Gibson is Canadian Regional Crane Compliance Manager at Kiewit, a position he has held for the past six of his 15 years with the company. With more than 18 years as a crane operator, equipment maintenance supervisor and trainer, Steve has had the opportunity to get to know many areas of the crane industry including lift planning, rigging, scheduling, inspecting, incident investigation, piling operations, tower cranes, barge mounted cranes, heavy lift and transport and assembly disassembly operations. Steve sits on multiple crane committees across Canada and has served as a valuable member of the BC Crane Safety Board of Directors since 2015.

Jason Gilmore

Phoenix Truck and Crane Coquitlam, BC

Jason Gilmore is an active crane operator and equipment owner. He is a representative for Phoenix Truck and Crane. Phoenix is a safety leader and COR certified company providing general freight and crane services throughout the Lower Mainland for more than 25 years. Jason joined the BC Crane Safety Board of Directors in 2016.

Michael Goett

Industrial Training International, Woodland, Washington

Mike Goett has spent his career in the Oil and Gas Industry, holding roles such as Crane Operator, Lifting and Hoisting Specialist, and Heavy Lift Superintendent. For more than 15 years he has worked in locations across North America and the Middle East, specializing in mobile crane operations, rigging applications, rigging gear inspection, lift planning and accident investigation. Mike is currently working for Industrial Training International as Crane and Rigging Instructor/Subject Matter Expert.

Our Board of Directors













Jeff Gorham

International Union of Operating Engineers, Burnaby, BC

leff Gorham is Administrator at **IUOE Local 115 Training Association** (IUOETA), a national leader in delivery training supporting a range of industries including Road Building and Heavy Construction, Mobile Crane Operation and Asphalt Paving. The IUOETA also participates in the development of National Occupational Standards for heavy equipment operation. With this background, leff has been contributing his expertise and knowledge to BC Crane Safety through his service on the Board of Directors since 2016.

Chris Grajek

Allteck Line Contractors, Langley, BC

Chris Grajek is the Director of HSE for Allteck Limited Partnership for the last 14 years. Chris manages and coordinates safety, environment and work method programs and initiatives. He is a Canadian Registered Safety Professional and Certified Utility Safety Professional with extensive experience in heavy construction, high voltage transmission/distribution/substation projects, remote and heavy terrain environments, air and marine utility operations and various specialized work methods for the electrical and gas utility sector. Chris is involved with a variety of utility task teams including his service as a Board member of BC Crane Safety and the Utility Safety Operations Leadership Network.

Don Stevens

Teck Metals (representing the Heavy Industry Trade Advisory Committee), Trail, BC

Don Stevens is a Professional Engineer working for Teck Metals Limited in Trail BC. He obtained his Mechanical Engineering degree from the University of British Columbia. Don spent 12 years working in a design office prior to moving to Teck Trail Operations. He has spent the last 12 years overseeing the crane and lifting program for the site. Teck Trail Operations has a variety of lifting equipment ranging from mobile cranes and bridge cranes to portable hoists and below-thehook lifting devices. Don joined the BC Crane Safety Board of Directors in 2019.





Ryan Stewart

Arsenal Engineering, Abbotsford, BC

Ryan Stewart is a Professional Engineer originally from northern BC. He obtained his Mechanical Engineering degrees (BSc and MSc) from the University of Alberta. After completing his degrees he worked in northern Alberta for a few years before moving to the Lower Mainland. Ryan started Arsenal Engineering Ltd at the end of 2014. Arsenal provides engineering consulting and non-destructive testing services with a focus on construction and lift equipment.



Our Board of Directors

Past Board Members

As we celebrate our 15th year, BC Crane Safety recognizes the valuable contributions of past Board members who have seen us grow from just an idea to a world-class certification authority. The BC Crane Safety success story would not have been possible without their leadership and expertise.

In 2004, when WorkSafeBC started to lead discussions about revising BC's Occupational Health and Safety Regulation, it took a dedicated group of expert operators, employers and health and safety officials to draft the wording of the new Regulation. This new wording would make certification mandatory by law (July 1, 2007). It was an enormous undertaking and involved representation and input from a diversity of industries. And even though there was widespread support for the idea of mandatory certification, it certainly wasn't always easy to accommodate the interests of such a wide range of industries.

Achieving that goal was a challenge and our early Board members met that challenge through collaborative and productive discussions. That new regulatory wording is the foundation upon which we have worked ever since. It is the basis of all of our subsequent efforts to build, implement and maintain BC's crane operator assessment and certification system. All of our past Board members have been driven by their commitment to developing and delivering a truly effective system that works for everyone and maintains the highest global standards of safety and competence. That is an ongoing job and the work of the BC Crane Safety Board has overcome many challenges over the years in order to achieve consensus among a wide diversity of stakeholders.

Now, in 2019, we continue to meet ongoing challenges to maintain the relevance and effectiveness of our certification scheme. As we work to enhance labour mobility between jurisdictions through Mutual Recognition Agreements and ISO Accreditation, we also move toward a future in which we are able to share our expertise and experience with other certifying bodies and industries that could benefit from certification.

Rob Magee	GWIL Industries	2005	2009
Jim Barkman	Eagle West Truck & Crane	2005	2010
Gary Kroeker	IUOE Local 115	2005	2010
Bob Fedderly	Fedderly Transportation	2005	2010
Brian Savage	Western Industrial Contractors	2005	2006
Jim Voss	BC Hydro	2005	2007
Larry Sinclair	BC Marine & Pile Driving Contractors	2005	2010
Mike Stekelenburg	Alcan	2005	2008
Peter Sperlich	Log and Timber Building Industry Assoc.	2005	2008
Kathleen Sheppard	WorkSafeBC	2005	2009
Brian Fehr	BID Construction	2006	2010
Ihab Sadik	BC Hydro	2008	2013
Ron Karras	RMG Formwork 2005 Ltd.	2009	2015
Jason Block	Kiewit	2009	2010
Steve Douglas	Heavy Industry Trade Advisory Committee (Teck)	2009	2016
Randy Grisewood	IUOE Local 115	2010	2016
Ryan Burton	Bigfoot Crane	2010	Present
Kevin Campbell	Fraser River Pile & Dredge	2010	2013
Kevin Bach	Kiewit	2010	2015
Walter Bramslaven	Sitka Log Homes Inc.	2010	2012
Ken Morland	Sterling Crane	2010	2019
Clinton Connell	Eagle West Truck & Crane	2013	Present
Chris Grajek	Allteck Line Contractors Inc.	2013	Present
Gary Hamata	Vancouver Pile Driving	2013	2019
Shawn Lynch	Convoy Supply Ltd.	2013	Present
Steve Gibson	Kiewit	2015	Present
Jason Gilmore	Phoenix Truck and Crane	2016	Present
Michael Goett	ITI	2016	Present
Corey Sedgwick	Heavy Industry Trade Advisory Committee (Teck)	2016	2019
Jeff Gorham	IUOE Local 115	2016	Present
Ryan Stewart	Arsenal Engineering	2019	Present
Don Stevens	Heavy Industry Trade Advisory Committee (Teck)	2019	Present

Our Staff

Our History

We're very proud to work with our wonderful team of talented professionals. It has always been our goal to keep our staff as small and efficient as possible.

These are the people who work tirelessly, every day, to accomplish our mission. Their dedication, expertise and hard work keep us going and we thank them.

Fraser Cocks	Executive Director
Rob Kell	Controller
Patricia Johnson	Executive Assistant
Dale Bird	Administration
Cissy Lei	Administration
Roberta Sheng-Taylor	Director, Certification and Licensing
Vacant	Certification/Communication Analyst



In December of 2004, WorkSafeBC initiated a dialogue between crane owners, operators and organized labour to address gaps in its Occupational Health and Safety Regulation (OHSR) regarding the operation of cranes.

There had been an apprenticeship program in place, but it was designed only for the largest type of mobile crane, took at least four years to complete and did not include a practical assessment of competency. When the apprenticeship system's governing body in BC was dissolved in 2002, even the limited standards that had been in place were no longer applicable or enforceable. British Columbia was left with nothing: no formalized training system for crane operators, and no credential to recognize competent operators or to meaningfully distinguish them from those who fell short of safe crane operations.

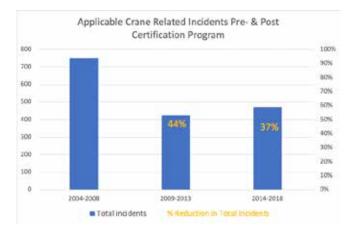
Crane owners and operators were highly supportive of WorkSafeBC's efforts to improve the Regulation and institute a formal, mandatory credential. It took some years to reach consensus across the wide range of industries – approximately 70 Classification Units (CUs) – that have an interest in safe crane operations, but that has been achieved and maintained by BC Crane Safety.

Formally incorporated in 2005, BC Crane Safety is funded by WorkSafeBC for the purpose of designing, overseeing and maintaining the crane operator assessment and certification program in British Columbia.

Over the past 15 years, in co-operation with our assessment partners, Fulford Certification and the ITA, we have issued nearly 24,000 crane operator certifications. Approximately 8,500 highly qualified, certified crane operators are currently working in BC and there are about 2,000 more people currently progressing through the system, working to earn their credentials every day.

Our History

We have seen a significant 40% reduction¹ in cranerelated incidents since the implementation of the BC Crane Safety certification program. There have been no fatalities in BC in the last 11 years. The health and safety impact of our robust certification regime is clearly demonstrated by these numbers.



Since 2004, we have experienced a profound culture shift in attitude toward safe crane operations in BC. Employers recognize the value and efficiencies of safe operations. Operators themselves are more confident

in their professional competencies and more interested in working as crane operators because their career path is clear. It has been noted that, even with an 85% success rate for applicants, many want to review their assessments to identify their knowledge gaps. They want to know what they don't know.

BC crane operators take pride in their credentials. And rightly so. Our system is globally recognized as a world-class certification regime. Over the past number of years, we have been forging Mutual Recognition Agreements (MRAs) with leading organizations in Europe and the UK under the Canada–European Union Comprehensive Economic and Trade Agreement (CETA). These agreements will enable the labour mobility that is critical to our economy, allowing BC to address foreseeable labour shortages related to large industrial projects throughout the province and, in return, enable BC-certified operators to work in other participating jurisdictions.

[1] This figure represents an average between 2009–2014 (43.66% reduction) and 2014–2018 (37.12%) extrapolated from WorkSafeBC data to include only equipment types applicable to BC Crane Safety certification.



BC Crane Safety Historical Milestones

2004

With the dissolution of ITAC in BC and no specific reference to a requirement for certification in provincial regulation, WorkSafeBC begins work to develop new regulatory requirements for crane operator certification and competency assessment in consultation with stakeholders. The first-ever Crane Safety Conference is held in December.

2005

BC Crane Safety, legally called the BC Association for Crane Safety, is incorporated as a WorkSafeBC-funded association to pull together crane operators regardless of the industry they serve and to ensure a common set of standards can apply to each type of crane province-wide.

2006

Dozens of consultation workshops are held in order to support the development of a competency-based licensing and certification framework for three main crane types (tower cranes, mobile cranes and boom trucks) sharing a common core curriculum and accommodating maximum flexibility in the development of operator career paths. The BC Crane Safety executive employs a collaborative leadership approach to guide and establish the new certification scheme. involving a working partnership with WorkSafeBC, Yukon Workers' Compensation Health and Safety Board, the BC

Industry Training Authority (ITA) and 52 industry stakeholder representatives.

2007

The OHS Regulation -WorkSafeBC requiring certification goes into effect. BC Crane Safety receives the first applications to become assessed and certified under the new system. It was originally estimated that approximately 5,000 incumbent operators would need to be registered, but it turns out to be closer to 14,000. BC Crane Safety and the Industry Training Authority (ITA) partner up to address this challenge.





BC Crane Safety Historical Milestones

2008

OHS Regulation wording requiring competency assessment certification is developed in the Yukon Territory. This parallels the OHS Regulation-WorkSafeBC version and officially lays the groundwork for the development and adoption of common standards and protocols between the two jurisdictions.

Serious incidents in BC increase the pressure to implement the certification program. Andrew Slobodian, 22, is crushed and killed while working on the Canada Line project in Vancouver on January 21. Two more incidents, occurring later in the year, are not fatal but leave one operator seriously injured and present considerable risk to public safety.

The first theoretical and practical assessments are piloted with a group of 125 participants who are already working as crane operators. Fulford Certification, in co-operation with Sterling Crane, performs the pilot assessments and continues as BC Crane Safety's current assessment service provider.

Yukon Workers' Compensation Health and Safety Board recognizes and adopts the BC Crane Safety certificate as proof of competence. Fulford Certification provides training in reading load charts and conducts the first post-pilot practical assessments in the Yukon Territory in October. BC Crane Safety signs a formal agreement to engage Fulford Certification as the assessment provider for the certification program in November.



2009

The number of operators certified in BC and Yukon under the new system exceeds 500 by April. By September that number rises to 1,450 completed assessments.

2010

Crane operator certifications reach the 4,400 mark with almost 8,000 operators actively engaged in the assessment process. BC Crane Safety tests and, in October, launches an online logbook for operators to document their hours.



2011 ->->

February 28, the deadline by which all operators in BC have to complete the assessment process, is successfully met.



As of August 26, more than 10,000 crane operators are certified and nearly 300 are making their way through the assessment process.

The new Canadian crane safety council, Canadian Hoisting and Rigging Safety Council (CHRSC), is introduced at the Crane and Rigging Conference (CRAC) in September with the goal of creating a framework for a national certification standard. Fraser Cocks, **BC** Crane Safety **Executive Director is** acting Chair and is soon appointed Executive Director.

A mutual recognition process is established between BC and Alberta.

2013

A mutual recognition process is established with Washington State. The process is piloted and approved in 2014.

2014

The CHRSC enhances efforts to actively promote the development and harmonization of national certification, competency and assessment standards throughout Canada. Fraser Cocks, Executive Director of both the CHRSC and BC Crane Safety, takes on the role of keynote speaker at a number of conferences including the Shutdowns Turnarounds Conference, the largest for the Oil and Gas industry. He is invited back to speak in 2016. Fraser also takes the lead on the CHRSC Multi-Jurisdictional Crane Operator Regulation, Certification Comparison and Reciprocity Initiative.



BC Crane Safety Historical Milestones

2015

A Mutual Recognition
Agreement (MRA) is
signed in Dublin, Ireland
in September. The MRA
expresses intentions for
the mutual recognition
of Mobile Crane Operator and Tower Crane
Operator credentials
to enhance the mobility
of crane operators
between Ireland and
Canada.

After a year and a half co-operating on a project to compare certification requirements, an MRA between the USA and BC is reached recognizing Mobile and Tower Crane credentials on both sides of the border.

2016

As a result of establishing relationships with US certification providers, Fed OSHA, the US Federal Occupational Safety and Health Administration, invites BC Crane Safety Executive Director, Fraser Cocks, to present information about BC's certification program. US federal requirements for crane operations are changing and OSHA has great interest in the processes and successes of the BC model.

CHRSC pursues the development and adoption of a national crane trade credential through the Canadian Red Seal Harmonization process. This is the first-ever attempt to achieve national harmonization with Fraser Cocks as the project co-chair.

After a meeting with BC Crane Safety, the Yukon Territory, represented by the Yukon Workers' Compensation Health and Safety Board, integrates with BC Crane Safety's online registration and logbook systems, streamlining the career path for operators and providing enhanced supports and resources for operators and employers in the Yukon.

2017

In October, BC Crane Safety enters into an agreement with the Government of Canada to explore and promote mutual recognition of crane operators under the Canada-European **Union Comprehensive** Economic and Trade Agreement (CETA). BC Crane Safety's certification program is recognized to meet or exceed the highest standards of training and certification in the EU. The association signs an MOU recognizing equivalency with the European Crane Operator Licence Foundation (2019) and is preparing to sign the first formal Mutual



2018

BC Crane Safety is invited to join the expert board of ECOL/ESTA to provide input into the establishment of an EU-wide standard and certification system. BC Crane Safety is the only non-European representative on this advisory board.

In March, WorkSafeBC and BC Crane Safety co-host the first Tower Crane Industry Safety Conference in more than a decade. More than 150 tower crane professionals from across British Columbia attend. With nine safety-focused presentations, a range of topics are covered and discussed, from regulatory matters and standards development to equipment maintenance and new technologies. Because feedback is so positive, BC Crane Safety immediately starts planning to hold another one in November 2019.

In April, WorkSafeBC and BC Crane Safety meet with Yukon Workers' Compensation Health and Safety Board on a training program for Yukon WCB officers and meet with industry representatives.

October 4 – The first cohort of students graduates from the new Crane Operator Training program offered by the Yukon College which had been piloted in May. This flexible course earns successful participants a provisional certification so that they can log their hours online through BC Crane Safety, write a theoretical exam and complete a practical assessment.

2019

It has been a big year. Read on to find out about our activities in 2019.



PART 2 - 2019 HIGHLIGHTS

Ongoing Activities

We work to achieve the objectives of our mandate every day. Here are some examples of the routine activities we carry out on a regular basis:

Mandate Statement 1: Maintain the integrity, validity and reliability of crane operator certification and licensing within British Columbia

Integrity

- Compliance with privacy requirements and similar legislation
- Review and revision to internal and external processes and systems
- Communication to employers and workers
- Ensuring accessible and accurate certification resources

Reliability

- Quality control and quality assurance activities
- Stakeholder engagement

Validity

- Research and development activities
- Content moderation and validation
- Site assessments

Mandate Statement 2: Collaborate with industry and other stakeholders to identify and promote industry practices that support safe and effective crane & hoisting operations in BC

- Identification of current practices
- Identification of alternate practices
- Evaluation of industry practices
- Engagement with stakeholders:
 - Manufacturers
 - Owners/Employers
 - Operators
 - Regulator
- Identification or design of performance/ competency standards

Mandate Statement 3: Advocate for standards, policies and regulations that support safe and effective crane operations in BC through stakeholder engagement and advisory groups

- Activities that support harmonization and labour mobility
- Engagement and industry representation with the International Organization for Standardization (ISO)
- Engagement and industry representation with the Standards Council of Canada (SCC)
- Engagement with industry representation with the Canadian Standards Association (CSA)
- Implementation of Memoranda of Understanding (MOUs) and Memoranda of Agreement (MRAs)
- Research (practices)
- Research (incidents and claims)
- Engagement with the Technical Advisory Committee



Certifications and Assessments

WorkSafeBC's Occupational Health and Safety Regulation (OHSR 14.34.1 Operator certification) requires all crane operators to have a valid operator's certificate. Crane operators must be qualified and competent on the specific equipment they use. Being qualified means an operator knows the work, the hazards involved and how to control the hazards. This knowledge can come through education, training, experience, or a combination of these factors. Being qualified also means an operator has been instructed in how to use the specific equipment. Being competent means an operator can demonstrate how to safely operate, inspect and maintain a specific machine.



Our most important priority is, and continues to be, the maintenance of the crane operator qualification system to address the needs of all operators and employers in the province. Oversight of this system is the number one key to achieving and maintaining safe and effective crane, hoisting and rigging operations throughout BC.

Many of our activities associated with assessment and certification are therefore routine and ongoing, including:

- Delivering administrative services for the crane industry, including online operator logbooks (SkillRecord) and an online credential validation system (Credential Check)
- Maintaining a load chart information database and question bank for the assessment process
- Ongoing quality assurance of the assessment process
- Ongoing updating and maintenance of the standards and theory exam questions
- Accommodating operators from other jurisdictions and facilitating the Out of Jurisdiction (OOJ) process in compliance with the Agreement on Internal Trade (AIT)
- Maintaining a crane operator database and registry for operators, employers and owner-operators
- Ongoing assessment delivery, development and evaluation.

Certifications and Assessments

We continue to provide new and incumbent crane operators within the province with a seamless assessment system that supports their efficient completion of certifications from initial registration through to full qualification.

The table on the right reflects the number of crane operators certified in 2019. Yukon certificates are included in these totals.

	Full Scope	Provisional	Limited Scope
Mobile Crane	26	170	1
Mobile Crane Hydraulic 80 Tonnes & Under	6	72	5
Mobile Crane Hydraulic 20 Tonnes & Under	21	44	10
Boom Truck Stiff Boom Unlimited	1	18	0
Boom Truck Stiff Boom 40 Tonnes & Under	77	92	4
Boom Truck Stiff Boom 20 Tonnes & Under	24	47	0
Boom Truck Folding Boom Unlimited	2	6	0
Boom Truck Folding Boom 22 Tonnes & Under	112	152	0
Boom Truck Folding Boom 10 Tonnes & Under	268	216	10
Tower Crane	18	205	5
Self-Erect Tower Crane	58	103	0
Totals	613	1,125	35

Total: 1773

Operators from outside BC wishing to work in the province are also accommodated. In 2019, we oversaw the successful certification of 962 operators through the Out of Jurisdiction process.

	AB	MB	NB	NL	NS	ON	PEI	QC	SK	US	IRE	UK	Totals by Crane Type
Crane Operator (Quebec)								2					2
Mobile Crane (JP)	323	6	5	13	8	20	1		10				386
Mobile Crane (App)	33												33
Boom Truck (JP)	127												131
Boom Truck (App)	5												5
Tower Crane (JP)	37	1		1		4			4				43
Tower Crane (App)													0
Wellhead Boom Truck (JP)	240												240
Wellhead Boom Truck (App)	122												122
Total by Province	887	7	5	14	8	24	1	2	14	0	0	0	962

Recognizing Foreign Credentials

Spotlight on Ben Foster

Ben is a crane operator from the UK with thousands of hours of experience and a UK certification. When he decided to emigrate to BC with his family, he met with a number of obstacles, not the least of which was having his UK credential recognized in Canada. BC Crane Safety guided his way through the credential recognition process and after one year he was ready to move to BC. But, in that same year, he ran into problems with Citizenship and Immigration Canada.

They advised him that they had reversed their decision to grant him permanent residency. "I was ready to give up" he said. Instead, he contacted BC Crane Safety. After BC Crane Safety clarified that Ben's UK credential was recognized under a Mutual Recognition Agreement with the UK under CETA, Ben was finally able to make his move to Canada.

Four months later, Ben arrived in BC and began working as a mobile crane operator. "If it wasn't for BC Crane Safety, I would not be here now," he says. "The fact that I had people helping me and going above and beyond was amazing. My family and I are really enjoying it here so far. It's a dream come true."

Women in the Crane Trades

Spotlight on Shannon Lewis

Shannon, from BC, is a Red Seal mobile crane operator working in the pile-driving industry. In her view, it doesn't matter if you are male or female, young or old, experienced or fresh in the field; if you have a good head on your shoulders and can get the job done, that's what matters at the end of the day in the construction trades sector.

Working in a traditionally male-dominated occupation, Shannon says there were no women to mentor her through her apprenticeship, even though she knows there are women crane operators out there. That said, she credits the men who have taught her along the way.

"I have to say that for the most part, the guys that I've worked with were really great. They are the ones who taught me everything I know today. I am a self-confident, intelligent person and I taught myself a lot, but when I first got hired I didn't have a clue about anything, so I have to give credit to the guys I've worked with over the years," she says, adding that of course there's always the 'double-take' men do when she first comes onto a new job site.

After getting her degree in molecular cell biology and biochemistry with the intent of becoming a veterinarian, she realized she did not have the funds to pursue that career path. She went into woodworking and eventually ironworking to pay off her student loan debt.

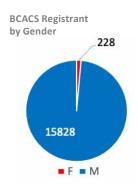
"I was working on making cages for the cranes. It was the middle of winter and I'm looking at the guy in the crane going, okay, that looks a lot more comfortable," she said. With help from IUOE, she got started on her apprenticeship and hasn't looked back.

"You know, I love my job, I love what I do, I'm happy," says Lewis. "The only regret I have is that I didn't start earlier. I work with these older guys who started in their early 20s and just from the whole pension and wage aspect, I would be way better off if I had started ten years sooner. There's no time to waste!"

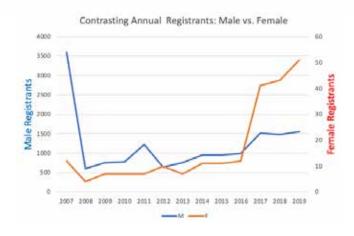
Lewis says if you have been considering getting a job in the trades, just go out there and do it.

The possibilities are endless and the opportunities are there.

Currently, women make up less than 1% of registrants with BC Crane Safety.



But the trend is rising, with a surge in interest from women starting in 2016. It is clear that the crane trades are becoming an attractive career choice for women.



Standards Development

Enhancing our certification programs

BC Crane Safety is working toward accreditation from the International Organization for Standardization (ISO). ISO/IEC 17024:2012 is an international standard which lays out the accreditation requirements for bodies (organizations) operating certification of persons. In other words, it is the highest bar for guaranteeing the effectiveness of organizations that issue certifications and also the quality and integrity of their certification programs.

ISO/IEC 17024 requires certifying organizations to conform to and maintain globally recognized and validated management systems covering: impartiality, fairness, organizational structure, confidentiality and privacy, protection against conflict of interest, legal framework, records management, certification renewal and the security of the certification process including complaints, appeals and reinstatements.

As BC Crane Safety moves to ISO/IEC 17024 accreditation, we are reviewing our existing polices, processes and data systems against the standard's audit requirements with a view to also meeting future standard maintenance and renewal requirements.

The new rigging standard and the associated assessment and certifications process, discussed in the next section of this report, is being developed to comply with the requirements of ISO/IEC 17024.



As BC Crane Safety continues to respond to industry changes, technological developments and regulatory requirements by updating occupational standards, certification framework and resources tied to our current assessment and certification regime, we work with stakeholders to increase the reach of our activities to include related occupations. We are in the process of developing and validating world-class standards in co-operation with stakeholders in various industries as well as provincial and federal agencies, the USA (OSHA), ISO/IEC and with Europe (ECOL, ESTA) to secure mutual recognition agreements with EU member states.

Rigging Competency Standard

A new standard, "Qualification and Proficiencies of Rigging Personnel (Level 1 and Level 2) and Signaling Personnel", has been developed and is currently out for stakeholder consultation. It is expected that this standard will be validated in 2020. This standard was first developed through assimilation of various applicable ISO and USA standards. In addition, this draft standard was compared to the Red Seal Electrician credential to compare the rigging content. It was reviewed by the International Brotherhood of Electrical Workers Union (IBEW), who assessed their own training materials against the draft standard and identified a 20% gap within their materials. The IBEW has subsequently engaged in the revision of their current curriculum to address this deficiency.

Once validated, this standard will form the foundation of a new competency-based assessment and certification system for rigging in BC and, eventually, Canada. Piloting the certification system will allow us to attain ISO/IEC 17024 and Standards Council of Canada accreditation as a certification body.

BC Crane Safety staff also met with the federal government in Ottawa to discuss the implications of a new National Occupational Classification (NOC) for riggers, set to be released in 2021. BC Crane Safety communicated our research findings as they relate to the potential number of riggers in key jurisdictions (BC, Alberta and Ontario) and concerns about the draft risk-rating for this occupation. We are awaiting the results of our consultations.

Telehandler Competency Standard

In 2019, a framework for telehandler competency standards was developed. This was shared at the annual Crane Rental Association of Canada (CRAC) conference and approved in principle. Once validated, BC Crane Safety will continue to work with national stakeholders to promote the adoption of this made-in-BC standard through an assessment and certification regime that meets the requirements of ISO/IEC 17024.

Harmonizing National Competency Standards

The national harmonization initiative, directed and managed by the Canadian Council of Directors of Apprenticeship (CCDA), has attempted to bring the crane trades into alignment across various Canadian jurisdictions. Some of the elements of harmonization

include the use of the Red Seal trade name, total training hours (in-school and on-the-job), consistent sequencing of training content (at each training level) and using the most recent Red Seal Occupational Standards. As a result, some Canadian jurisdictions have engaged and are making changes while others have not. The timelines for these changes are also very different as each jurisdiction has a different system and process.

In 2019, BC Crane Safety engaged with both the ITA and the International Union of Operating Engineers (IUOE) to ascertain the impact of harmonization activities in BC. Preliminary findings from stakeholder engagement indicate a need for additional consultation.

Also in 2019, a new National Occupational Competence Council (NOCC) was incorporated under the Canada Not-for-profit Corporations Act. The NOCC will work with governments, industry representatives and other stakeholders to facilitate national and international mobility of occupations, through alignment of standards, certification processes and mutually recognized credentials. There is potential for the NOCC to act as a negotiating entity with the EU through ECOL as described later in this report.

Crane Hot Line, *Operator Certification Guru Strives for All-Canada Standard*, November 2019

Crane Hot Line interviewed Fraser Cocks, Executive Director, about the development of BC's certification system and efforts to create a Canada-wide standard for crane operator certification. While stakeholders are generally in favour of consistent national standards, it has proven to be a challenging project.

"Each provincial model is unique in how it has evolved, is funded, and is supported by governmental regulations. That makes each model difficult to change and align with those of other provinces." – Keith Norbury, Crane Hot Line

While the national standard remains elusive, work continues through the Canadian Hoisting and Rigging Safety Council.

Resources and Supports for Safe Crane Operations

BC Crane Safety maintains a number of resources to support and promote safe crane operations at www.bccranesafety.ca. These include checklists and guidelines for better practices, materials to help prospective operators prepare for tests and exams, online registration and logbooks, posted standards as well as links to other relevant resources. While we maintain and update these as required, we continue to develop important new resources for publication on our website.

Safe Practices Resources

Tower Crane Pre-Erection Requirements Checklist

- Identifies pre-erection requirements and defines the responsibilities of personnel
- Completed in co-operation with WorkSafeBC and Engineers and Geoscientists BC (EGBC)
- Now available at www.bccranesafety.ca.

Tower Crane Assembly/Dismantling Supervisor Guidelines and Responsibilities

- Defines and describes the roles and responsibilities of personnel
- Currently in progress in collaboration with Work-SafeBC and other stakeholders.

Tower Crane Assembly/Dismantling Safe Work Practices

- Defines roles and responsibilities and identifies safe work practices
- Currently in progress in collaboration with WorkSafeBC and other stakeholders.

SkillRecord

BC Crane Safety's SkillRecord database system is an electronic, central repository of certification data. SkillRecord is a mobile logbook app and database that records work experience and maintains trade certifications. It is designed to:

- Summarize logbook entries by employer, equipment and other criteria, providing an overview of the tradesperson's practical experience and competence
- Provide sponsors with access to their logbooks, so sponsors can review progress summaries, identify areas where more experience is required, approve logbook entries and provide timely feedback
- Allow co-workers to view their logbooks to learn from experiences.

SkillRecord is available to all operators registered with BC Crane Safety online and via mobile app. It allows operators to document daily activity, upload photos, get sign-offs, and provides a portable record of achievements.

Credential Check

Credential Check is an online tool that allows employers and operators to check the details of their credentials. It is accurate, instant and convenient, streamlining the prior process of verifying credentials manually.



Communications

Communicating critical information to our stakeholders is an important part of BC Crane Safety's ongoing work. For example, we contribute to WorkSafeBC communications like newsletters and bulletins, post updates to our website and make one-to-one contact with operators and employers on a daily basis. In 2019, we began to research options for extending the reach of our communications activities by expanding our online presence and enhancing the consistency of our branding.

We are in the process of developing further communications collateral including an internal resource database, a quarterly newsletter and white papers.

Stakeholder Engagement

Our participation in, and hosting of, conferences is an important way we communicate with our stakeholders, letting them know about the work we do, creating opportunities for consultation and education as well as promoting a sense of shared purpose. Through these events we promote greater stakeholder engagement through:

- Greater communication and networking between stakeholder groups
- Greater understanding of the value of certification and emerging OHS issues
- Opportunities for stakeholder input and collaboration
- Consultation on and, ultimately, validation of new standards.

Crane Rental Association of Canada (CRAC) Conference June 5-8 2019 (Charlottetown, PEI)

This three-day annual conference included information sessions and events featuring speakers addressing topics such as recruitment (focused on the millennial workforce), legalization of cannabis and indigenous rights and partnerships. Along with WorkSafeBC, BC Crane Safety presented on current projects and hosted consultation sessions regarding the development of new rigging and telehandler standards.

Tower Crane Conference November 20, 2019 (Richmond, BC)

BC Crane Safety co-hosted this event with WorkSafeBC, building on the enormous success of the 2018 Conference. Interest in the event was overwhelmingly positive, with approximately 170 people attending.

The conference included six technical presentations and a keynote presentation by NASA astronaut, Dr. Story Musgrave, who was instrumental in repairing the Hubble Space Telescope and who understands the importance of equipment and worker safety. The event brought together tower crane owners, suppliers, erectors, general contractors, labour organizations, mobile and tower crane operators, as well as regulators and other stakeholders who work with cranes, to discuss current and new safe work practices, procedures and competency standards.

Working together, we continue to improve crane work processes, particularly focusing on crane erection and disassembly.

Communications

When something goes wrong

Following a catastrophic tower crane incident in Seattle in April 2019 – a collapse during the dismantling process which killed two workers and two passers-by – BC Crane Safety included presentations on this incident in the November Tower Crane Conference agenda. BC Crane Safety Executive Director Fraser Cocks and WorkSafeBC Crane Inspection Team representative, Doug Younger, were interviewed after the conference by the Vancouver Sun. An article describing the impact for BC and potential next steps was published on November 21, 2019: WorkSafeBC Conference Lifts Bar for Safety in Booming Highrise Construction Sector.

This article was republished by a number of media outlets including the Victoria Times Colonist and Crane and Hoist Canada.

BC Crane Safety has joined forces with the International Union of Operating Engineers (IUOE) and WorkSafeBC to advocate for better, safer guidelines in the City of Vancouver. The Seattle incident made it abundantly clear that the current practices, which involve both municipal officials and crane companies, were not adequate and put public safety at risk. We are working with city officials to improve all aspects of tower crane assembly and disassembly through dialogue, improved communication between stakeholders and the development of next practice guidelines.



PART 3 – LOOKING AHEAD

Certification, whether mandatory or voluntary, impacts a wide range of trades and occupations from hairstylists to lawyers, medical professionals to bricklayers. In general terms, certification regimes serve to provide quality assurance to consumers, protect public safety and to demonstrate the certification-holder's competence. Certification shows that a person can do their job to a high standard of professionalism. That includes demonstrating that they can do their job safely.

In BC, crane operators are required to be certified by law – that's why BC Crane Safety exists. But the value of any certification scheme depends on whether it fulfils its purpose and whether it is recognized as valid by the stakeholders it serves.

The primary purpose of mandatory certification for crane operators is to protect the safety of workers, workplaces and the public. In this province, we've seen a reduction of more than 40% in crane-related incidents since the BC Crane Safety credential was implemented and no fatalities in the past 11 years. Employers testify to notable efficiencies resulting from reduced equipment damage such as replacement of wire rope and operators' ability to operate cranes closer to their maximum capacity. Updates continue to be made and must continue to be made, but the certification system in BC has proven its value through the numbers, widespread stakeholder support and its international reputation.

Current Trends

A recent study² published by the Institute for Credentialing Excellence (ICE) and Knapp and Associates International found that younger workers, especially millennials (between 25 and 35 years old), favour professional credentialing systems because they serve to provide a clear way forward in any given career path. It was also found that workers pursuing a professional career place a high value on on-the-job experience, indicating that credentialing systems need to include some mechanism for assessing and recognizing competencies, knowledge and skills acquired outside of formal education programs.

"Taken together, the message is clear — millennials and Gen Zs want a way to prove their skills, but we need to meet them halfway by providing non-traditional approaches to assessment based on the work they have done or are doing." — Liberty Munson, Microsoft technical certification program psychometrician.

This study helps to confirm that BC Crane Safety's competency-based assessment and certification regime is on the right track for the future. Earning a credential should not depend on the amount of formal education a person has obtained. It's not about how many courses a candidate has taken but rather what an operator knows and can do, no matter how they learned. It's about competency. Operators who use BC Crane Safety's SkillRecord system are able to track their experience and demonstrate their ongoing professionalism.

[2] Knapp, L.G., Bauman, S., Munson, L. (2020). What do Gen Zs and Millennials Really Think About Certification? Credentialing Insights. www.credentialinginsights.org International Cranes and Specialized Transport, **Gearing Up For ECOL**, February 2019

This article announces the members of the Expert Board of the European Crane Operators License scheme. BC Crane Safety Executive Director, Fraser Cocks, is an invited member and is the only non-European representative providing expert input into the development and implementation of Europe-wide crane operator licensing scheme. As of February 2019, two European training facilities have become ECOL-qualified – Mammoet in the Netherlands and EUC-Lillebaelt from Denmark –

with a further six at different stages in the qualifying process. International lifting and heavy transport specialist Sarens has applied to qualify its Belgian training facility.

"Standards of crane operator training are hugely variable across Europe. ECOL will help to raise those standards to a common level. It will make the industry safer and more efficient, allowing properly qualified crane operators to work more easily in different countries throughout the EU and beyond."

– Stijn Sarens, ESTA Secretary

The Future of Certification

Competency-based assessments leading to certification are clearly the way forward for regulated occupations. BC Crane Safety's model is unique in Canada and some provinces are beginning to recognize its value for promoting safe and effective crane operations.

Prior to the implementation of the current system, crane operator apprenticeship in BC was tied solely to hours spent on the job and successful completion of a written exam: it did not include a practical assessment of the operator's ability to operate the equipment safely. This model persists throughout much of Canada. It has been shown that BC's competency-based model is not only more effective at producing competent operators but is also more attractive to new operators.

Harmonizing standards for crane operations has been challenging in Canada. Despite positive feedback from elsewhere in the country and a high level of interest, in the absence of a specific regulatory failing in urgent need of a solution, the status quo continues

to prevail. It is time to pay serious attention to the development and implementation of national standards for crane operations. It is in the interest of employers in dozens of industries, public safety in jurisdictions across Canada and the safety of operators themselves.

Through our work with European crane operator certification schemes including individual member states and the pan-European organization ECOL, we have found that BC is the only province in Canada with a crane operator certification scheme that reaches, if not supersedes, the highest standards in the world.

Our vision is "Safe and effective crane, hoisting, and rigging operations throughout British Columbia". In reality, our work extends far beyond BC and we have an enormous responsibility to support effective certification systems throughout Canada and the world by sharing our knowledge and experience.

PART 4 - FINANCIAL STATEMENTS

BC Association for Crane Safety, December 31, 2019

Contents

Independent Auditors' Report

Financial Statements

Statement of Operations	STATEMENT 1
Statement of Operations – WorkSafeBC Fund	STATEMENT 2
Statement of Changes in Net Assets	STATEMENT 3
Statement of Changes in Net Assets – WorkSafeBC Fund	STATEMENT 4
Statement of Cash Flows	STATEMENT 5
Statement of Financial Position	STATEMENT 6

Notes to Financial Statements

The December 31st, 2019 Audit Report and Financial Statements are available at www.bccranesafety.ca

Financial Statements, BC Association for Crane Safety December 31, 2019



CHARTERED PROFESSIONAL ACCOUNTANTS 219 – 700 Marine Drive, North Vancouver, BC, V7M I H3 Telephone: 604-987-8101

Fax: 604-987-1794 Website: www.eprnv.ca

Independent Auditor's Report

To the Members of the BC ASSOCIATION FOR CRANE SAFETY

Opinion

I have audited the accompanying financial statements of the BC Association For Crane Safety, which comprise the statement of financial position as at December 31, 2019 and December 31, 2018, and the statements of operations, changes in net assets and cash flows for the year then ended, and a summary of significant accounting policies.

Date: March 16, 2020

In my opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the BC Association for Crane Safety as at December 31, 2019, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations

Basis for Opinion

I conducted my audit in accordance with Canadian generally accepted auditing standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of BC Association For Crane Safety in accordance with the ethical requirements that are relevant to my audit of the financial statements in Canada, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my 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 BC Association For Crane Safety'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 BC Association For Crane Safety or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing BC Association For Crane Safety's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

My 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 auditor's report that includes my 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 these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, I exercise professional judgment and maintain professional scepticism throughout the audit. I 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 my 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 BC Association For Crane Safety internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude 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 BC Association For Crane Safety's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause BC Association For Crane Safety 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.

I 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 I identify during my audit.

Report on Other Legal and Regulatory Requirements

As required by the Society Act of British Columbia, I report that, in my opinion, these principles have been applied on a basis consistent with that of the preceding year.



Statement 1

BC Association for Crane Safety — Statement of Operations, Year Ended December 31, 2019

	ESDC Fund	ITA Industry Training Authority Fund	BC Ministry of Jobs Fund	Yukon WCHSB Fund	Total WorkSafeBC Fund	TOTAL 2019	TOTAL 2018
FUNDING	\$ 239,991	\$ 6,800	\$ -	\$ -	\$ 1,253,100	\$ 1,499,891	\$ 1,442,924
EXPENSES							
Advertising	-	-	-	-	306	306	200
Amortization	-	-	-	-	10,156	10,156	6,092
Automotive	-	-	-	-	3,337	3,337	1,517
Bank charges & interest	248	120	(5)	-	910	1,273	1,331
Computer and website	-	-	-	-	30,129	30,129	14,299
Consulting fees	46,727	-	-	-	35,466	82,193	429,905
Courses & conferences	-	-	-	-	11,408	11,408	8,922
GST expenses	3,250	-	-	-	-	3,250	14,887
Insurance	-	-	-	-	7,498	7,498	7,264
Interest	-	-	-	-	792	792	-
Loss on disposal of assets	-	-	-	-	6,971	6,971	2,344
Maintenance of Industry Services							
-Note 3	-	-	-	-	78,192	78,192	104,542
Meeting Costs	-	-	-	-	13,417	13,417	6,793
Membership and dues	-	-	-	-	5,125	5,125	1,488
Moving	-	-	-	-	3,359	3,359	-
Office supplies & other	-	-	-	-	4,874	4,874	8,426
Professional fees	-	-	-	-	29,029	29,029	11,252
Reference material	-	-	-	-	1,061	1,061	-
Rent	-	-	-	-	103,718	103,718	58,107
Salaries and benefits	123,228	-	-	-	740,719	863,947	575,372
Telephone	-	-	-	-	9,832	9,832	9,001
Training	-	-	-	-	1,902	1,902	-
Travel	23,374	-	-	-	13,984	37,358	98,355
	\$ 196,827	\$ 120	\$ (5)	\$ -	\$ 1,112,185	\$ 1,309,127	\$ 1,360,097
Excess (deficiency) of funding over expenses	\$ 43,164	\$ 6,680	\$ (5)	\$ -	\$ 140,915	\$ 190,764	\$ 82,827

The accompanying notes and schedules are an integral part of these financial statements

EPR North Vancouver

Statement 2

BC Association for Crano Safety — Statement of Operations

BC Association for Crane Safety — Statement of Operations, WorkSafeBC Fund Year Ended December 31, 2019

	WorkSafeBC Operations Fund	WorkSafeBC Reserve Fund	WorkSafeBC Projects Fund	WorkSafeBC Capital Fund	TOTAL WorkSafeBC Fund
FUNDING	\$ 1,000,800	\$ -	252,300	\$ -	\$ 1,442,924
EXPENSES					
Advertising	306	-	-	-	306
Amortization	-	-	-	10,156	10,156
Automotive	3,337	-	-	-	3,337
Bank charges & interest	910	-	-	-	910
Computer and website	30,129	-	-	-	30,129
Consulting fees	21,462	-	14,004	-	35,466
Courses & conferences	11,408	-	-	-	11,408
Insurance	7,498	-	-	-	7,498
Interest	792	-	-	-	792
Loss on disposal of assets	-	-	-	6,971	6,971
Maintenance of Industry Services					
-Note 3	78,192	-	-	-	78,192
Meeting Costs	11,361	-	2,056	-	13,417
Membership and dues	5,125	-	-	-	5,125
Moving	3,359	-	-	-	3,359
Office supplies & other	4,874	-	-	-	4,874
Professional fees	29,029	-	-	-	29,029
Reference material	637	-	424		1,061
Rent	103,718	-	-	-	103,718
Salaries and benefits	678,110	-	62,609	-	740,719
Telephone	9,797	-	35	-	9,832
Training	1,902	-	-	-	1,902
Travel	13,741	-	243	-	13,984
	\$ 1,015,687	\$ -	\$ 79,371	\$ 17,127	\$ 1,112,185
Excess (deficiency) of funding over expenses	\$ (14,887)	\$ -	\$ 172,929	\$ (17,127)	\$ 140,915

The accompanying notes and schedules are an integral part of these financial statements

EPR North Vancouver

Statement 3

BC Association for Crane Safety — Statement of Changes in Net Assets, Year Ended December 31, 2019

	ESDC Fund	ITA Industry Training Authority Fund	BC Ministry of Jobs Fund	Yukon WCHSB Fund	Total WorkSafeBC Fund	TOTAL 2019	TOTAL 2018
Net assets, beginning of year	\$ 34,061	\$24,194	\$ 5,483	\$1,314	\$ 207,644	\$ 272,696	\$ 189,869
Excess (deficiency) of funding over expenses	43,164	6,680	5	-	140,915	190,764	82,827
Net assets, end of year	\$ 77,225	\$ 30,874	\$ 5,488	\$ 1,314	\$ 348,559	\$ 463,460	\$ 272,696

The accompanying notes and schedules are an integral part of these financial statements

EPR North Vancouver

Statement 4

BC Association for Crane Safety — Statement of Changes in Net Assets, WorkSafeBC Fund, Year Ended December 31, 2019

	WorkSafeBC Operations Fund	WorkSafeBC Reserve Fund	WorkSafeBC Projects Fund	WorkSafeBC Capital Fund	TOTAL WorkSafeBC Fund
Net assets, beginning of year	\$ -	\$185,923	\$ -	\$21,721	\$207,644
Excess (deficiency) of funding over expenses	(14,887)	-	172,929	(17,127)	140,915
Interfund transfers	-	-	-	-	-
Purchase of Capital Assets	(49,439)	-	-	49,439	-
Bridge financing from (to) Reserve Fund – Note 7	64,326	108,603	(172,929)	-	-
Net assets, end of year	\$ -	\$ 294,526	\$ -	\$ 54,033	\$ 348,559

The accompanying notes and schedules are an integral part of these financial statements

EPR North Vancouver

Statement 5

BC Association for Crane Safety — Statement of Cash Flows, Year Ended December 31, 2019

	2019	2018
OPERATING ACTIVITIES		
Excess of funding over expenses for the year		
Items not involving cash	\$ 190,764	\$ 82,827
Amortization	10,156	6,092
Loss on disposal of assets	6,971	2,343
	207,891	91,262
Changes in working capital accounts		
Accounts receivable	(2,804)	4,441
Prepaid expenses	(34,553)	(76)
Accounts payable and accrued liabilities	62,074	(15,681)
Deferred revenue	(91,014)	(33,521)
	141,594	(44,837)
INVESTING ACTIVITIES		
Purchase of capital assets	(49,439)	(7,792)
FINANCING ACTIVITIES		
Equipment loan	11,323	-
Increase (decrease) in cash	103,479	38,633
Cash, beginning of year	344,099	305,466
Cash, end of year	\$ 447,578	\$ 344,099

The accompanying notes and schedules are an integral part of these financial statements **EPR North Vancouver**

Statement 6

BC Association for Crane Safety — Statement of Financial Position, Year Ended December 31, 2019

	2019	2018
ASSETS		
Current Assets		
Cash	\$ 447,578	\$ 344,099
Accounts receivable	2,711	500
GST rebate receivable	5,072	4,479
Prepaid expenses	20,976	7,575
Security deposit	24,984	3,832
	501,321	360,485
Tangible capital assets under capital lease – Note 4		
Tangible capital assets – Note 5	54,033	21,721
	\$ 555,354	\$ 382,206
LIABILITIES		
Current Liabilities		
Accounts payable and accrued liabilities	\$ 80,571	\$ 18,497
Deferred revenue	-	
Current portion of obligation under capital lease – Note 6	1,649	91,014
	82,220	109,511
Long Term Liabilities		
Obligation under capital lease – Note 6	9,674	-
NET ASSETS		
Net assets	463,460	272,695
	\$ 555,354	\$ 382,206

Economic Dependence — Note 8. **Commitment** — Note 10

Approved by the Directors:

Director. Date: May 21, 2020

Director. Date: May 21, 2020

The accompanying notes and schedules are an integral part of these financial statements

Notes to Financial Statements

BC Association for Crane Safety — Year Ended December 31, 2019

1. PURPOSE OF THE ASSOCIATION

The BC Association for Crane Safety (the "Association") is incorporated under the Societies Act of British Columbia.

The Association provides leadership for health and safety development within the crane and hoisting industry. They serve all industry stakeholders as a forum for effectively addressing common safety issues and as an industry advisory body regarding standards, regulations, and qualifications. The purpose is to support and maintain a comprehensive, inclusive credentialing regime to support the goal of accident free crane operations throughout British Columbia.

2. SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations as issued by the Accounting Standards Board in Canada and include the following significant accounting policies:

Revenue Recognition

The Association follows the deferral method of accounting for contributions; restricted contributions, including provincial funding, and are deferred and matched with related expenses as incurred.

Unrestricted revenue, including administrative recoveries, are recognized as revenue when received or receivable, if the amount can be reasonably estimated and collection is reasonably assured.

Fund Accounting

In order to ensure observance of limitations and restrictions placed on the use of resources available to the Association, the accounts are maintained on a fund accounting basis. Accordingly, resources are classified for accounting and reporting purposes into funds. These funds are held in accordance with the objectives specified by the contributors or in accordance with the directives issued by the Board of Directors.

The ESDC Fund (Employment and Social Development Canada)

This fund is used to account for all revenues and expenditures related to the Canada/European Union Crane Operator Credential MRA Project.

ITA Industry Training Authority Fund

The Industry Training Authority Fund is used to account for all revenue and expenditures related to apprenticeship standards, certification and exams, for Crane Operators in British Columbia.

BC Ministry of Jobs

The BC Ministry of Jobs Fund is used to account for all revenue and expenditures related to the development of crane operative jobs in British Columbia. This project was completed in 2019.

Yukon Workers' Compensation Health & Safety Board Fund

This fund is used to account for all revenue and expenditures related to services provided for crane operator certification, information, support and record system for Yukon Territory. This project was completed in 2019.

WorkSafeBC Operations Fund

The WorkSafeBC Operations Fund is used to account for all revenue and expenditures related to general and ancillary operations of the Association and Maintenance of Industry Services function.

WorkSafeBC Projects Fund

The WorkSafeBC Projects Fund is used to account for all revenue and expenditures related to non-administrative operations of the Association.

The WorkSafeBC Reserve Fund

The WorkSafeBC Reserve Fund may be used as an alternative funding source for unforeseen, time sensitive and unbudgeted initiatives that will result in a deficit at the end of the year. It may also be used as bridge financing until the next funding payment is received from WorkSafeBC. The WorkSafeBC Reserve Fund consists of a maximum of up to 3 months of the annual WorkSafeBC's funding amount.

The WorkSafeBC Capital Fund

The WorkSafeBC Capital Fund is used to account for all capital assets of the organization and to present the flow of funds related to their acquisition and disposal, unexpended capital resources.

Equipment Under Capital Lease

Equipment under capital lease is recorded at cost and is amortized over the lease term of 60 months.

Tangible Capital Assets

Tangible capital assets are recorded at cost. Amortization is provided using the declining balance method at rates intended to amortize the cost of assets over their estimated useful lives.

Measurement Uncertainty (use of estimates)

The preparation of financial statements in conformity with Canadian accounting standards for not- for-profit organizations 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 revenues and expenses during the reporting period.

Amortization is based on the estimated useful lives of capital assets. Accounts receivable are stated after evaluations as to their collectability and an appropriate allowance for doubtful accounts is provided where considered necessary.

These estimates and assumptions are reviewed periodically and, as adjustments become necessary, they are reported in excess of revenues and expenses in the periods in which they become known.

Financial Instrument

The Association recognizes its financial instruments when the Association becomes party to the contractual provisions of the financial instrument. All financial instruments are initially recorded at their fair value.

At initial recognition, the Association may irrevocably elect to subsequently measure any financial instrument at fair value. The Association has not made such an election during the year. The Association subsequently measures financial assets and liabilities at amortized cost.

Transaction costs and financing fees directly attributable to the origination, acquisition, issuance or assumption of financial instruments subsequently measured at fair value are immediately recognized in the excess (deficiency) of revenues over expenses for the current period. Conversely, transaction costs and financing fees are added to the carrying amount for those financial instruments subsequently measured at amortized cost or cost.

Long-lived Assets

Long-lived assets consist of computer equipment and furniture and equipment. Long-lived assets held for use are measured and amortized as described in the applicable accounting policies.

The Association performs impairment testing on long-lived assets held for use whenever events or changes in circumstances indicate that the carrying amount of an asset, or group of assets, may not be recoverable. Impairment is measured as the amount by which the asset's carrying value exceeds its fair value. Prices for similar items are used to measure fair value of long-lived assets. Any impairment is included in the net loss for the year.

3. MAINTENANCE OF INDUSTRY SERVICES

Maintenance of Industry Services are expenditures to support, expand and maintain industry established services and products relevant and in tune with industry expressed and demonstrated needs. In contrast, Project Costs are related to new or in-progress services and products.

4. TANGIBLE CAPITAL ASSETS UNDER CAPITAL LEASE

			2019	2018
	Cost	Accumulated Amortization	Net	Net
Equipment	\$13,189	\$ 1,319	\$11,870	\$ -

5. TANGIBLE CAPITAL ASSETS

			2019	2018
	Cost	Accumulated Amortization	Net	Net
Computer equipment	\$ 29,981	\$ 8,211	\$ 21,770	\$10,728
Furniture and equipment	29,440	9,047	20,393	10,993
	\$ 59,421	\$ 17,258	\$ 42,163	\$ 21,721

6. OBLIGATION UNDER CAPITAL LEASE

In 2019, the Association entered into an agreement with Xerox Canada Ltd. for the lease of an office copier.

	2019	2018
\$13,189 lease obligation payable to Xerox Canada Ltd., bearing an interest rate of 10.650% per annum repayable in quarterly payments of \$764.21 due on April 30, 2024	\$ 11,323	-
Less: current portion of obligation	(1,649)	-
Lease obligation	\$ 9,674	-

For the year ended December 31, 2019, the Association incurred interest of \$644 in connection with the lease obligation.

Principal repayments to be made during the next years, at which time the lease obligation will be fully repaid.

2020	2023
2021	2024
2022	

7. WORKSAFEBC RESERVE FUND

According to the agreement with WorkSafeBC, any surplus funds paid by WorkSafeBC shall either be deducted from the subsequent year's funding, returned to WorkSafeBC or retained in a reserve fund to a maximum of up to 3 months of the annual WorkSafeBC's funding amount. WorkSafeBC has historically reduced any surplus amounts by deducting them from the subsequent years' funding.

This year the Association has recorded a surplus of funding as a result of an adjustment of \$17,127 in the WorkSafeBC Capital Fund to clear out the net deficiency in that fund, a \$49,439 adjustment in the WorkSafeBC

Capital Fund for capital purchases. When these adjustments are added to the net income of the fund of \$158,042 the net surplus of funding in the WorkSafeBC Operations Fund is \$108,603. Management has authorized the transfer to the Reserve Fund.

8. ECONOMIC DEPENDENCE

The Association's primary source of income is from WorkSafeBC funding. The Association's ability to continue viable operations is dependent on maintaining the funding relationship and agreements with WorkSafeBC. The Association has a HSA funding agreement in place with WorkSafeBC for 2020.

9. FINANCIAL INSTRUMENTS

The Association as part of its operations carries a number of financial instruments. The carrying value of cash, accounts receivable, accounts payable and accrued liabilities approximates its fair value given the short-term nature of these financial instruments. It is administration's opinion that the Association is not exposed to significant interest, currency or credit risks arising from these financial instruments except as otherwise disclosed.

10. COMMITMENT

The Association entered into a 5-year rental lease agreement commencing on July 1, 2019 and ending on June 30, 2024. Pursuant to the current lease agreements, the minimum required annual payments with operating costs are as follows:

2020	2023
2021 \$142,241	2024
2022	

11. REMUNERATION OF DIRECTORS, EMPLOYEES AND CONTRACTORS

The Society Act of British Columbia requires disclosure of remuneration to directors and remuneration to employees and contractors when this is in excess of \$75,000.

During the year the Association paid the following remuneration that exceeded \$75,000:

Directors)
Employees \$ 539,426	5
Contractors)



BC Association for Crane Safety

595 Burrard Street, PO Box 48883 Bentall, Vancouver, BC V7X 1A8,

Phone: 604-336-4699 | Fax: 604-336-4510 | Email: info@bccranesafety.ca

www.bccranesafety.ca

Crane Certification & Licensing Authority for BC