

# 2020 Annual Report



**BC Crane  
Safety**

*Crane Certification and Licensing Authority*







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*BC Crane Safety provides health and safety leadership for crane and hoisting operations across diverse industries in all regions of British Columbia.*

*Photography\* by Fraser Cocks*

*Images of Directors supplied by themselves*

*Writing and Editing by Michelle Harding*

*Design and Layout by TAP Graphics Ltd.*

*\* Some stock imagery also utilised.*

## Message from the Chair

Ryan Burton



When I started working with cranes in 1992, a lot of operators were self-taught. Since then, I've seen a major shift in attitudes toward safety. Now, thanks to the hard work of countless people who have contributed their expertise over the years, BC Crane Safety is a global leader in occupational certification. I could not be more grateful for their contributions.

I have been a member of the Board of Directors since 2007 and Chair since 2017. I also serve on the Board of the Crane Rental Association of Canada. I am honoured to contribute to the safety of crane operations in this province and beyond.

The "beyond" in that last sentence has become an important part of BC Crane Safety's vision for the future as we work with other provinces and territories to establish national standards for crane operators and related trades. And there's further expansion on the horizon since we signed an international agreement in 2020 to mutually recognize crane operator certifications between BC and participating EU nations.

I want to thank the BC Crane Safety Board and staff, past and present, for their dedication over the past 16 years. In 2020 we welcomed two new Directors, Matthew Blackwell and Dennis Bamford. We wish success to Michael Goett and thank him for his years of service on the Board.

BC Crane Safety is a driving force in the professionalization of crane operations, not only here but globally. BC is the only Canadian jurisdiction that can make this claim and I'm enormously proud of our achievements.

A handwritten signature in blue ink, appearing to read "Ryan Burton", with a long horizontal flourish extending to the right.

## Message from the Executive Director

Clinton Connell



In late 2019 Fraser Cocks stepped back from his role as our founding Executive Director. At that point, my involvement on the Board had been steadily increasing. When I was chosen as his replacement, I took it as an opportunity to make a positive and lasting impact.

BC Crane Safety was originally formed to establish a certification program for crane operators that had both theoretical and practical elements. A key factor was that the certification would have to be embraced by all stakeholders and contain a mechanism to recognize previous training and experience. No small order! Thanks to the work of countless contributors, many of whom were volunteers, that goal was met, and BC has a certification scheme that has quite literally attracted attention from around the world. BC-certified operators can enjoy labour mobility throughout Canada, the US, and Europe.

BC Crane Safety has exciting plans for the future, including a recertification element that will allow operators to keep credentials current and further align us with global standards. We continue to develop best-practice resources for our stakeholders and update existing standards in response to technological innovations in the heavy equipment market.

I want to extend a sincere thank you to our Board, our incredible staff, industry partners, subject-matter experts and volunteers - we could not be where we are without you!

To those who are new to our work: Welcome to BC Crane Safety!

A handwritten signature in blue ink, appearing to read 'Clinton Connell', with a stylized flourish at the end.

# PART 1 – ABOUT BC CRANE SAFETY

## Crane Certification & Licensing Authority for BC

BC Crane Safety was formed in 2005 to develop a certification program for crane operators in British Columbia. At that time, there was no way to ensure that crane operators had any qualifications. The result was some very serious incidents that cost not only money but lives.

The BC Crane Safety crane operator certification program has been in place for more than a decade. During that time, more than 24,000 operators of 11 crane types have earned their BC Crane Safety certificates and gone on to vastly improve the safety record of crane operations in BC. Our program is so successful that we have formed partnerships with other regions in North America and Europe to recognize the value of the BC certificate and the professional achievements of the operators who hold it.

BC crane operators are some of the most highly skilled in the world. The BC Crane Safety certification is unique in several ways.

- It was developed by industry – made by and for people who use cranes including operators, owners and employers. It took a lot of dedication and vision to get such a wide range of interests working together. They decided how the program should work and what the standards should be.
- It is a “competency-based” certification program. That means it requires a hands-on practical test of knowledge, skills, abilities and attitudes. It’s not only about how many hours of experience a person has, and it doesn’t require people to take specific courses. It’s about what people know and can do safely and professionally, no matter how they learned.

- It follows the natural progression of how crane operators are trained and grow competent by measuring operators’ skills through independent, professional assessments in real-world scenarios.
- It has a flexible, tiered structure that allows people with different levels of skill or ambition to operate the types of equipment appropriate to their work. Once a person has gained a core foundation of skills and knowledge, they can move to more specialized classes of cranes as they build their careers. It also makes the program responsive to changing economic conditions because operators can get certified on the equipment in highest demand in their area and industry sector.

As the designated authority and administrator of the BC crane operator certification program, BC Crane Safety provides leadership and support for health and safety development for crane hoisting operations. This includes serving as an advisory body for regulatory and safety matters. We work closely with industry, labour and governments to develop, maintain and implement standards for assessments and certification. We collaborate, write and publish safe work practices on topics like crane assembly, crane operator supervision requirements and crane operator competency assessments.

We are primarily funded by WorkSafeBC and we thank them for 16 years of support, collaboration and innovation.

Our top focus is, and will always be, to promote health and safety for workers, their workplaces and the public. That’s why we continue to develop resources and “next practices” to help support all of our stakeholders including the many industries that benefit from safe, effective crane operations.

We are BC's crane certification authority. We oversee a third-party competency-based certification system that has become a model for jurisdictions around the world. We are in the process of achieving world-class status through ISO/IEC 17024 alignment.

### ISO/IEC 17024



We work with industries, governments and health and safety authorities within BC, across Canada and internationally to identify trends and "next practices" that impact all our stakeholders including the many industries that benefit from safe, effective crane operations.



# BC Crane Safety

Crane Certification and Licensing Authority

# WHO WE ARE

Our oversight role means we are not a training organization or an assessment body. Because we use a third-party assessment process, we avoid conflicts of interest and maintain quality assurance. This means we validate and issue credentials impartially.



We set and maintain competency-based assessment standards and protocols for 6 levels of certification and for eleven crane types.

6



We issue certifications to operators who can demonstrate competency, no matter how and where they gained their skills.



We work alongside Fulford Certification, the third-party service provider that facilitates exam delivery and conducts practical assessments.

We are advocates and promoters for the health and safety of worksites, workers and the public.



# 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 and 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
- The establishment in British Columbia of a 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 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.



## Our Values

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



# Our Board of Directors

The BC Crane Safety Board of Directors is a stakeholder Board. That means only people who own cranes, operate them, or employ crane operators can be voting members. Our Board also includes non-voting representatives from WorkSafeBC and the Yukon Workers' Compensation Health and Safety Board.

Our Board members represent a cross-section of stakeholders including:

**Crane types**, including

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

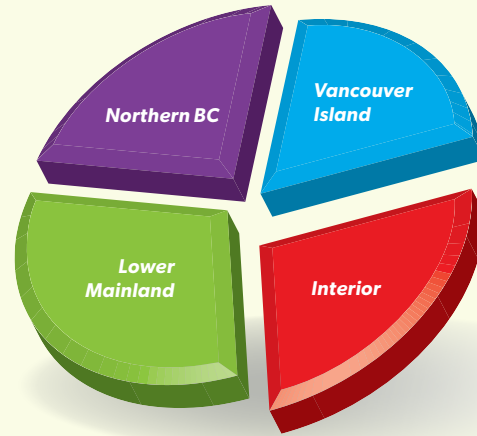
**Industry sectors**, including

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

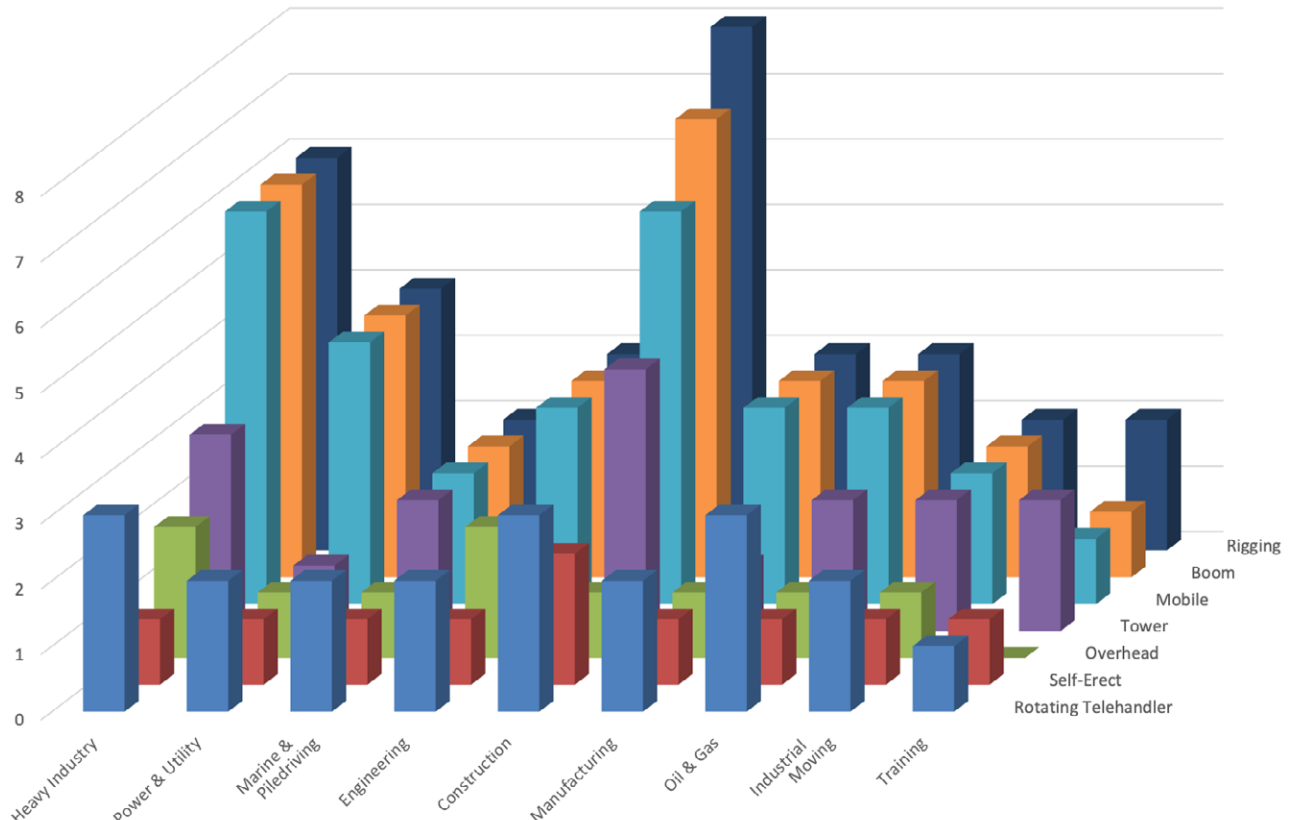
**Regions in BC**, including

- Lower Mainland
- Interior
- Vancouver Island
- Northern BC

**Board Representation by Region — 2020**



**Board Member Representation by Sector and Equipment Type — 2020**



## Our Board of Directors



**Ryan Burton** (Chair)

**Bigfoot Crane Company Inc.,  
Abbotsford, BC**

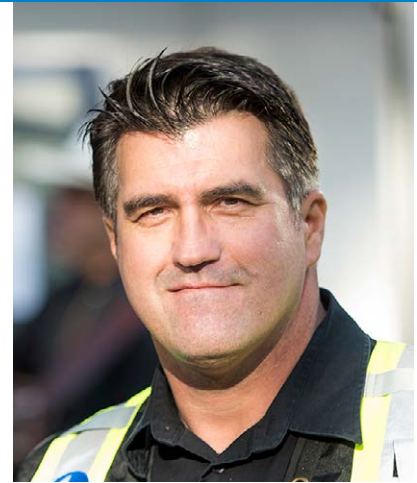
Ryan Burton moved from Alberta to BC and learned to operate hydraulic cranes while building the Island Highway in the early 1990s. Since then, he worked his way up from Operator to Sales and then into the General Manager role with Eagle West Cranes. Currently, Ryan is the Managing Director at Bigfoot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



**Jason Gilmore** (Vice Chair)

**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.



**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.



**Don Stevens**

**Teck Metals Ltd., Trail, BC**

Don Stevens is a Professional Engineer working for Teck Metals Limited in Trail B.C. 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 now oversees 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-the-hook 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.



**Jeff Gorham**

**International Union of  
Operating Engineers  
Local 115, Burnaby, BC**

Jeff Gorham is Administrator at IUOE Local 115 Training Association (IUOETA), a national leader in delivering 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, Jeff has been contributing his expertise and knowledge to BC Crane Safety through his service on the Board of Directors since 2016.

## Our Board of Directors



### Steve Gibson

#### Kiewit, Edmonton, AB

Steve Gibson is Project Crane and Equipment Manager at Kiewit. With more than 18 years' experience 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.



### Chris Grajek

#### Allteck Line Contractors

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 on the Boards of BC Crane Safety Board and the Utility Safety Operations Leadership Network.



### Matthew Blackwell

#### RKM Crane Services, Langley, BC

Matthew Blackwell has been actively involved in the crane and hoisting industry for twenty years. He started in the residential sector as a tower crane operator, and then moved into the mobile crane industry. As an apprentice, he worked through several training programs, becoming trade-qualified in both tower and mobile crane operations. Today, he is the General Manager of RKM Crane Rentals in the Lower Mainland. Matthew joined the BC Crane Safety Board of Directors in 2020.



**Dennis Bamford**

**Maxum Cranes, Vancouver, BC**

Dennis Bamford has been operating mobile cranes for many years. He has been General Manager at Maxum Crane Rentals in Burnaby, BC since 2014. Founded in 1999, Maxum is a safety leader providing services to many industries in BC including a specialization in the motion picture industry. Dennis joined the BC Crane Safety Board of Directors in 2020.



## Past Board Members

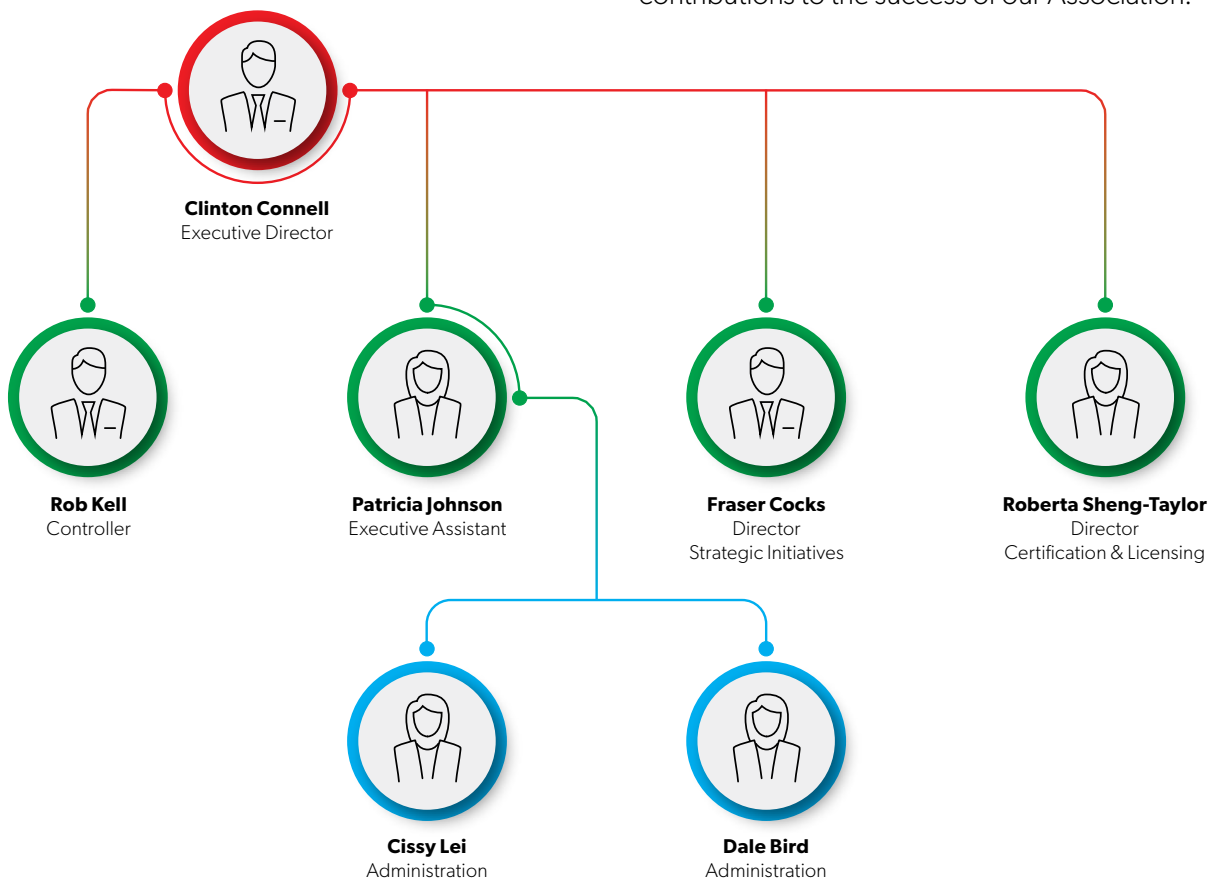
BC Crane Safety is grateful for the valuable contributions of our past Board members. They have seen us grow from just an idea in 2004 to a world-class certification authority now. All of our past Board members have been driven by their commitment to developing and delivering a practical, effective crane operator certification system that works for everyone and maintains the highest global standards of safety and competence.

The BC Crane Safety success story would not have been possible without their leadership and expertise.

## Our Staff

We're very proud to have a wonderful team of talented professionals. These are the people who keep us going every day, managing everything — whether it's telephone enquiries, processing assessment records and applications, finances, or new initiatives to support employers and operators in the field. That's just a small fraction of what our staff accomplishes every day. We appreciate their dedication, expertise and hard work and we thank them.

With deep gratitude, we wished our Executive Assistant, Patricia Johnson, all the best for her retirement from BC Crane Safety at the end of 2020. For many years, Patricia has been absolutely essential to our work. Her dedication and service has supported the core values and continued growth of BC Crane Safety. We thank her for her countless valued contributions to the success of our Association.



## Our History

In December of 2004, WorkSafeBC began a dialogue with crane owners, operators and organized labour. They wanted to find out how to best address gaps in the BC Occupational Health and Safety Regulation (OHSR) that had emerged regarding crane operations.

In 2002, BC's apprenticeship system was dissolved and there was no way to enforce even the limited standards that had been in place before then. The old system only applied to the largest types of mobile cranes and didn't include a practical test of competence. BC was left in a difficult place; there was no formal training system for crane operators and no way to distinguish between operators who were competent from those who fell short.

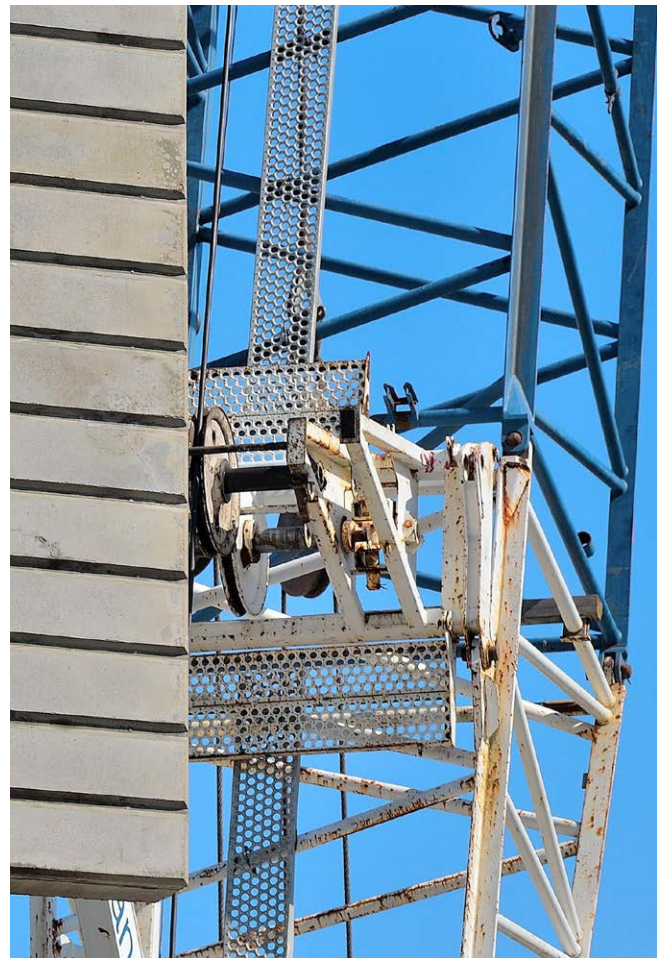
Crane operators, owners, employers, and labour groups were very supportive. They wanted a formal certification program because unsafe operations were costing lives and livelihoods. Financial costs were impacting employers and contractors in terms of efficiency and damages to equipment and property. Something had to be done.

It took several years to reach consensus because there are so many different industries with an interest in safe crane operations: approximately 70 CUs (Industry Classification Units). But we did it. And we keep doing it.

With the help of our assessment partners, Fulford Certification and the ITA (Industry Training Authority), we have issued more than 24,000 crane operator certifications. Even in this past year of the COVID-19 pandemic, there are about 8,500 highly skilled certified crane operators working in BC and about 2,000 more people progressing through the system, working to earn their certificates every day.

Since 2004, the impact of BC's crane operator certification has been felt in reduced numbers of incidents and a deep culture shift in attitudes toward safe operations. Employers recognize the value and efficiency of safety and operators are more confident in their professional competencies. People are also more interested in becoming crane operators because their career path is clear.

BC Crane Safety-certified operators take pride in their credentials. And rightly so. Our system is recognized throughout North America and Europe as among the most comprehensive in the world. We continue to work toward agreements with other jurisdictions to mutually recognize the professionalism of BC crane operators. The result? More opportunity, more mobility, and most of all, more assurance that workers and the public go home safely at the end of every workday.



## BC Crane Safety Historical Milestones

**2004**

In December, WorkSafeBC holds the first-ever Crane Safety Conference, inviting stakeholder participation in the development of a new competency-based crane operator certification program.

**2005**

BC Crane Safety, formerly called the BC Association for Crane Safety, is incorporated as the certifying body for BC crane operators to establish a common set of standards applicable to various crane types throughout the province and across industries.

**2006**

Dozens of consultation workshops are held to support the development of a flexible, competency-based certification system. BC Crane Safety uses a collaborative approach, involving input from WorkSafeBC, Yukon Workers' Compensation Health and Safety Board, the BC Industry Training Authority (ITA) and 52 representatives of crane owners, operators and employers.

**2007**

The BC OHS Regulation requiring certification goes into effect. BC Crane Safety receives the first applications to be assessed and certified under the new system. They originally thought up to 4,000 operators would register, but the actual number is closer to 14,000, with many registering from outside BC.

**2008**

Serious incidents in BC increase the pressure to implement the certification program. A 22-year-old operator is crushed and killed while working on the Canada Line project in Vancouver on January 21. This would be the last fatality to occur in BC. 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. Fulford Certification performs the pilot assessments and will continue as BC Crane Safety's assessment service provider to the present day.

Yukon Workers' Compensation Health and Safety Board recognizes and adopts the BC 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.





**2009**

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

**2010**

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

Upon learning of the requirement for a practical assessment, some registrants decide not to continue with the certification program.

**2011**

BC Crane Safety strives to meet the February deadline by which all operators in BC have to complete the assessment process – a feat requiring that an average of several hundred assessments be completed every month. An unexpectedly high level of demand outside the Lower Mainland delays completion.

**2012**

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

Approximately 15% of candidates are discovered to be not fully competent at the time of their assessment and are given an opportunity to reassess within three months.

The new 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.

BC and Alberta agree on a process to mutually recognize crane operators in both provinces.

**2013**

A mutual recognition process with Washington State is piloted for approval the following year.

**2014**

A mutual recognition process with Washington State is established. The CHRSC steps up efforts to promote the harmonization of certification standards throughout Canada. Fraser Cocks, Executive Director of both the CHRSC and BC Crane Safety, takes on the role of keynote speaker at several conferences including the Shutdowns Turnarounds Conference. 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 Memorandum of Understanding (MOU) is signed in Dublin, Ireland in September. The MOU expresses intentions for the mutual recognition of mobile and tower crane operator credentials to enhance labour mobility between Ireland and Canada.

After a year and a half co-operating on a project to align certification requirements, an MRA between the USA and BC is drafted with the goal of recognizing mobile and tower crane credentials on both sides of the border. Upon review, WorkSafeBC recognizes the certification programs of two US bodies as acceptable for the purpose of the OHS Regulation subject to the achievement of key prerequisites and the successful challenge of BC Crane Safety's practical crane leveling exam.

**2016**

Fed OSHA, the US Federal Occupational Safety and Health Administration, invites BC Crane Safety to present information about BC's certification program. US federal requirements for crane operations are changing and OSHA has great interest in the BC success story.

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 BC Crane Safety's 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). The Canada / European Union Crane Operator Credential MRA Project continues until 2020.

**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.

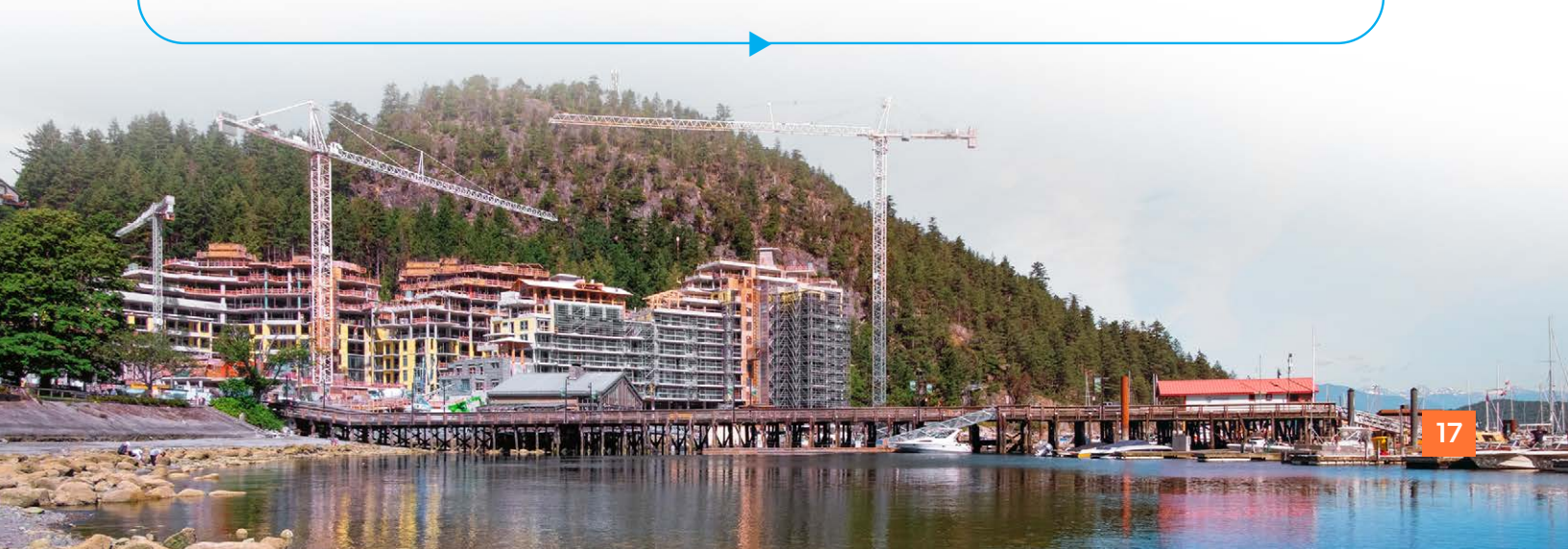
In March, WorkSafeBC and BC Crane Safety co-host the first Tower Crane Industry Safety Conference in more than a decade. More than 150 tower crane professionals from across British Columbia attend. With nine safety-focused presentations, a range of topics are covered and discussed, from regulatory matters 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.



## BC Crane Safety Historical

**2019**

A Memorandum of Understanding (MOU) is signed in April between BC Crane Safety and ECOL to facilitate the mutual recognition of certified mobile crane operators between Crane Safety and EU nations that adopt ECOL's standards and certification program.

A Mutual Recognition Agreement (MRA) envisioned under the terms of the Canada / European Union Crane Operator Credential MRA Project is finally in sight but first, a national negotiating body needs to be formed to extend the benefits to all Canadian operators, not just those in BC. The National Occupational Competence Council (NOCC) is established to help achieve that goal. Work gets underway to achieve ISO/IEC 17024 accreditation as a certifying body to support BC Crane Safety and the NOCC.

In June, BC Crane Safety, along with WorkSafeBC, co-hosts presentations on current projects and consultation sessions to support the development of new rigging and telehandler operator standards at the Crane Rental Association of Canada (CRAC) Conference in PEI.

BC Crane Safety and WorkSafeBC co-host another Tower Crane Conference in November, building on the success of the previous year. Approximately 170 people attend, including crane owners, suppliers, erectors, general contractors, labour organizations, operators as well as regulators and others who work with cranes. The focus is on current and evolving technologies, safe work practices, procedures, and competency standards.

**2020**

Read on to learn about BC Crane Safety's work in 2020.



# PART 2 – WHAT WE DO

## 2020 Highlights

### COVID-19 Response

It would be impossible to look at the key events of 2020 without addressing the enormous changes that the COVID-19 pandemic brought to all aspects of life and work. It has affected every person and every sector throughout the world.

In our office, like any other, we had to make a shift to working remotely when possible, meeting online, and adapting to the “new normal”. Despite challenges and adjustments, we continue our work to support safe crane operations throughout BC by keeping the certification program on track, providing uninterrupted services to our stakeholders, as well as keeping critical operations like registrations and the SkillRecord logbook services functioning.

Crane employers and contractors, operators and rental companies have all been impacted, just like everyone else. When WorkSafeBC put out new guidelines, we promptly published them along with other news affecting our stakeholders.

We collaborated with crane companies, industry associations and WorkSafeBC to develop and distribute safe work practices designed specifically for worksites where cranes are used to help minimize exposure to the virus. These are available at [www.bcranesafety.ca](http://www.bcranesafety.ca).

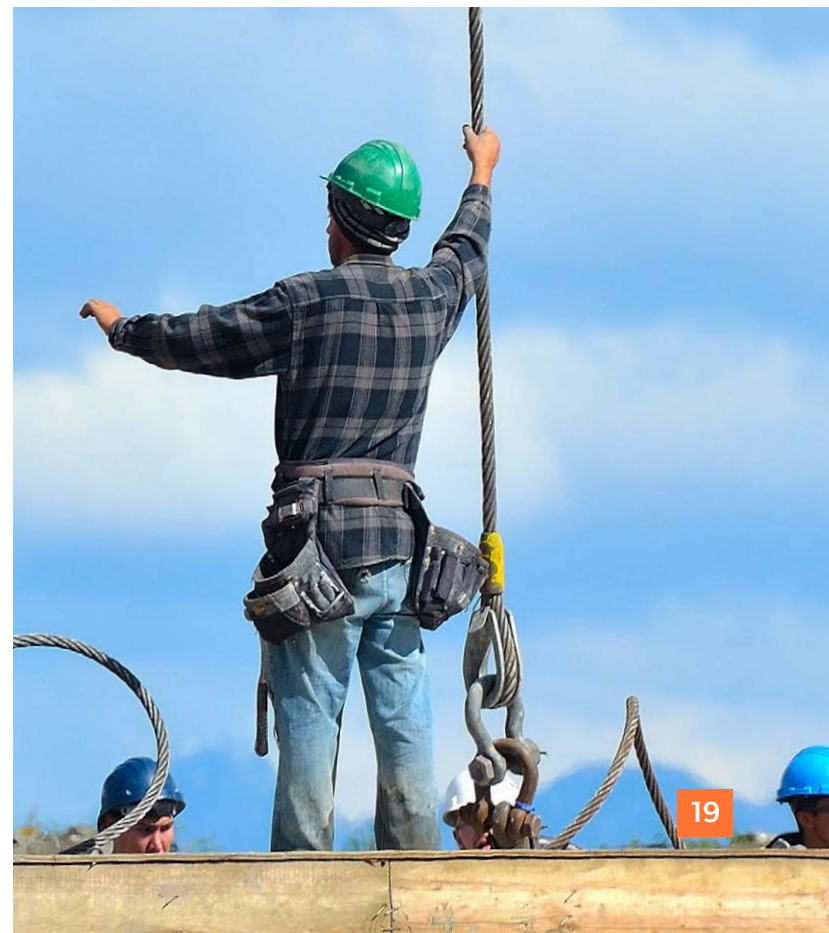
Impressive leaders in many sectors were at the forefront in developing the protocols and practices that everyone went on to adopt to keep workers and the public safe. In addition to frontline medical workers and emergency responders, important contributions to public health and safety have been made by industries such as construction, retail, transportation, hospitality and restaurants.

We acknowledge how difficult this year has been and how much dedicated effort has gone into getting through it as safely as possible. We owe a debt of gratitude to many who have shown extraordinary leadership throughout the year and we respect that, although no one has been untouched by the pandemic, some have suffered more than others.

Stay safe! We are all looking forward to a post-pandemic world.

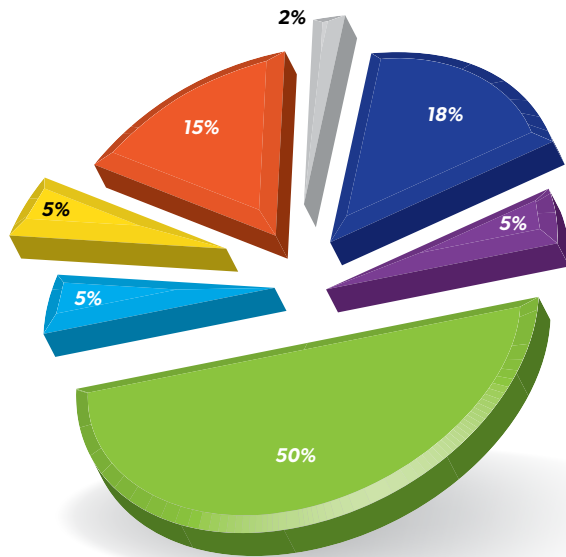
### Certification by the Numbers

After the pandemic was declared in March, we had a slow-down in applications for assessments. We are starting to see those numbers pick up again. Ever-increasing travel restrictions made it difficult to reach operators throughout BC and Yukon. However, we are making every effort to be sure people get their certifications as quickly and efficiently as possible.



## 2020 Highlights

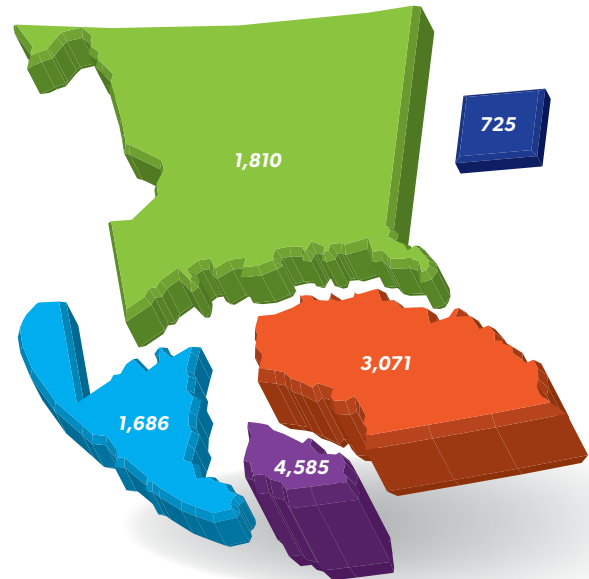
BC Crane Usage by Employer Sector — 2020



- Primary Resources
- Manufacturing
- Industrial/Commercial (ICI)/Residential/Marine Construction
- Transportation and Warehousing
- Public Sector
- Service Sector
- Film/TV Industry

Comprising approximately 72 sector classification units (CUs).

Total Active Certificates by Region — 2020



- Vancouver Island
- Interior
- Lower Mainland
- Northern BC
- Other Jurisdictions

In 2020, BC Crane Safety had 11,877 active crane operator certifications on record.

BC Crane Safety issues six levels of certification for 11 different crane classifications.

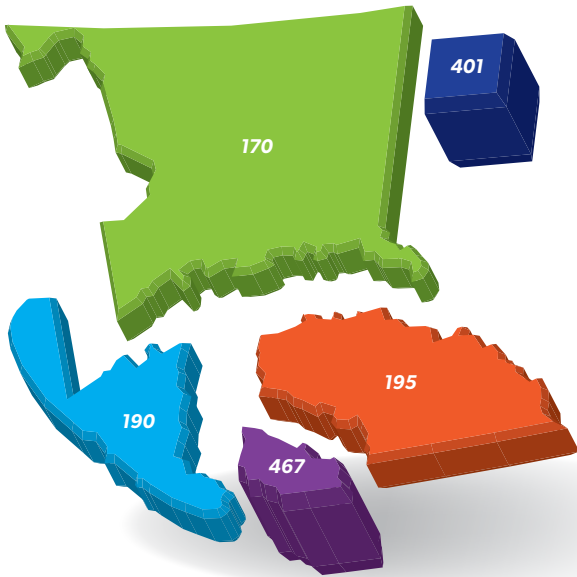
**Full Scope** means the person can operate the type of crane they were assessed on and any classified as being below that designation. There are no other restrictions.

**Provisional** is intended for trainees and apprentices. It allows the operator to gain experience under supervision until they are ready to get their Full Scope certification.

**Limited Scope** means that the operator is only permitted to operate a crane at a specific address for a specific employer. A change in employer means the operator needs a new certificate.

**Crane Mechanic** is intended to allow mechanics to operate a crane for the purpose of repair. No commercial lifts are allowed.

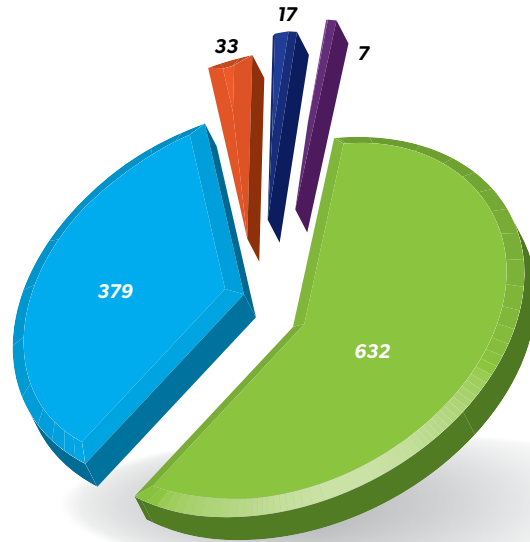
## BC Crane Safety Registrants by Region — 2020



- Vancouver Island
- Interior
- Lower Mainland
- Northern BC
- Other Jurisdictions

Crane operations touch all parts of the Province and beyond. In 2020, BC Crane Safety staff processed 1,423 registrations.

## Certifications by Type — 2020



- Full Scope
- Provisional
- Limited Scope
- Crane Mechanic
- Letter of Permission

In 2020, BC Crane Safety issued a total of 1,068 crane operator certifications across all levels and classifications. Including out-of-province Credential Recognition certifications.

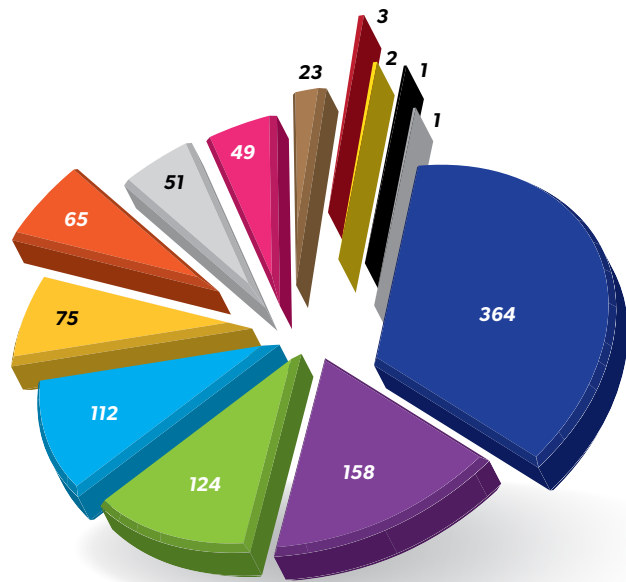
**Letter of Permission** is meant to allow a prospective operator to find out if operating a crane seems like a good fit before going on to get a Provisional for training. Direct supervision is required at all times.

**Credential Recognition** means that an operator from outside BC has had their out-of-province credential assessed and has met the requirements for certification by BC Crane Safety.



# 2020 Highlights

## Certifications by Crane Type — 2020



- Folding Boom 10 tonnes
- Folding Boom 20 tonnes
- Self-erect tower
- Stiff Boom 40 tonnes
- Tower
- Mobile 20 tonnes
- Stiff Boom 20 tonnes
- Mobile (Other)
- Mobile 80
- Stiff Boom unlimited
- Folding Boom unlimited
- Lattice Friction
- Lattice Hydraulic

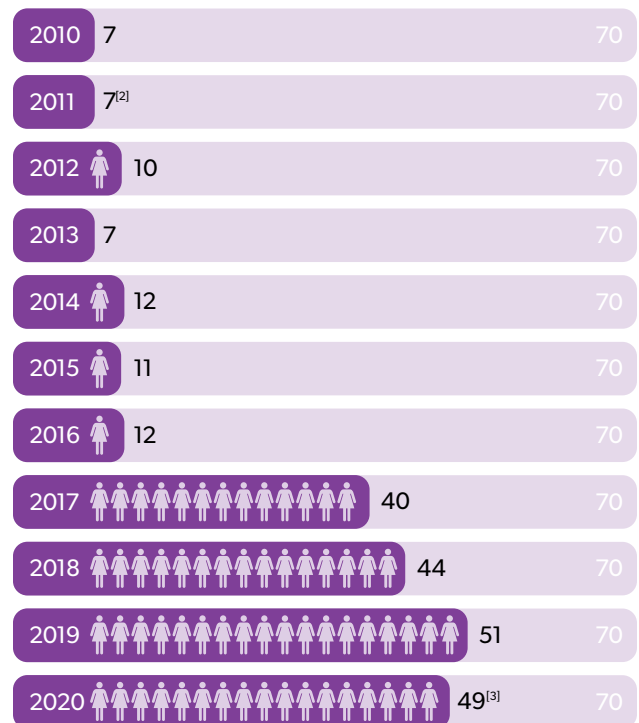
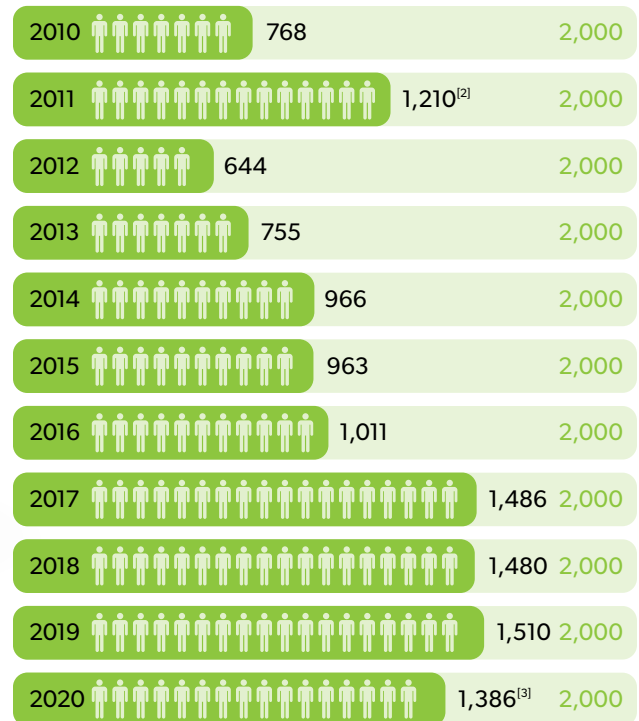
### Promoting Diversity

In 2020, the total number of female crane operators with active BC Crane Safety operator certifications of any kind in BC represented 0.01 per cent of the province’s total.<sup>1</sup> There are no data to show how well or poorly other aspects of workforce diversity, such as ethnicity, are represented.

While the number of women registering with BC Crane Safety has steadily increased over more than the past decade, not all registrants follow through to certification.

[1] BC Crane Safety skill record data 2020. As of the end of 2020 there were a total of 1,1877 people holding valid BC crane operator certificates. Of these, 145 were female.

## Contrasting Annual Registrants: Male/Female

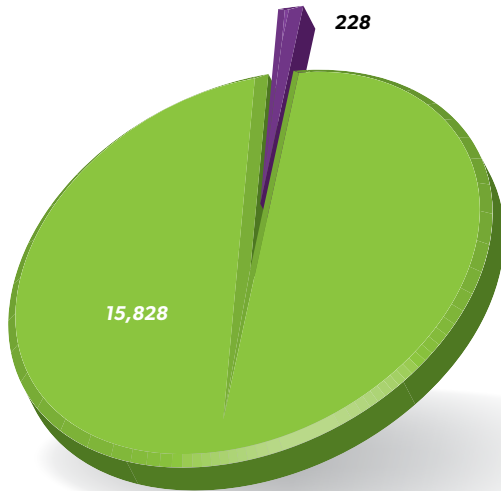


[2] Occupational health and safety regulation became enforceable.

[3] Numbers drop for both male and female due to COVID-19 restrictions.



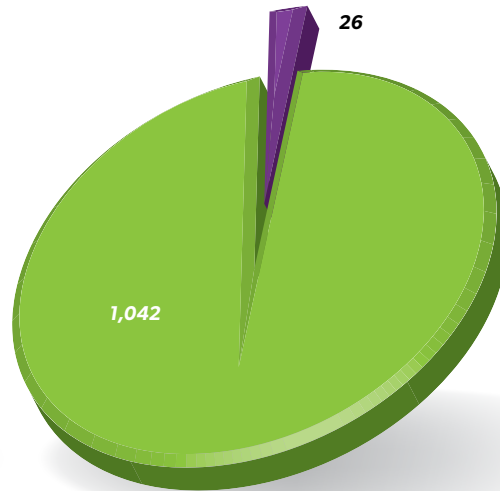
### Total All Time Registrants by Gender — 2020



● Female  
● Male

In 2020, BC Crane Safety had a total of 16,056 registrants on record.

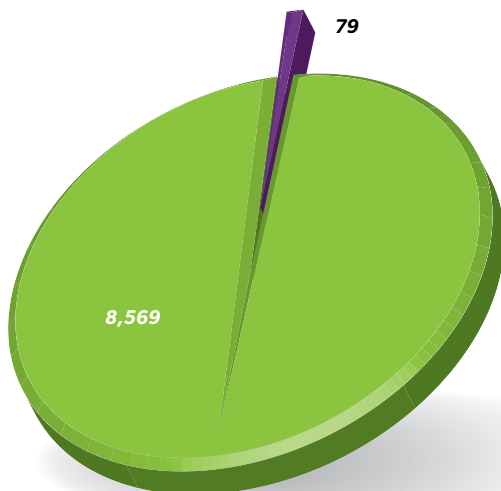
### New Certifications by Gender — 2020



● Female  
● Male

Of the 1,068 certifications issued by BC Crane Safety in 2020, 2.5% were to women and 97.5% to men.

### Total Active Full Scope Certificants by Gender — 2020



● Female  
● Male

In 2020, BC Crane Safety had a total of 8,648 active Full Scope Certificants on record.

We could learn from the construction sector, which in BC is seeing growth in the number of women in construction trades. In 2020, for example, women made up approximately six per cent of the workforce, up from 4.6 in 2019. While still below the ten per cent goal, it is a promising trend<sup>4</sup>.

But very few women are choosing to become crane operators even though employers are often quick to say that gender has nothing to do with a person's capacity for excellence in the crane operator profession.

[4] BC Construction Association, Stat Pack Fall 2020.

## 2020 Highlights

### So what are we doing about it?

BC Crane Safety is participating in the federal Gender-based Analysis Plan (GBA+). This program was created by Status of Women Canada to analyze how government policy shapes the experiences of women, men and non-binary people and their access to initiatives that might promote their participation in types of work from which they may feel excluded.



This will generate the information we need to develop strategies to increase the attractiveness of crane operations to encourage more workforce diversity.

Do you have a story about how your company or worksite supports diversity?

Please share it with us! We want to learn about what is working for you.

Send us an email at: [info@bccranesafety.ca](mailto:info@bccranesafety.ca)

Or give us a call at: **604-336-4699**

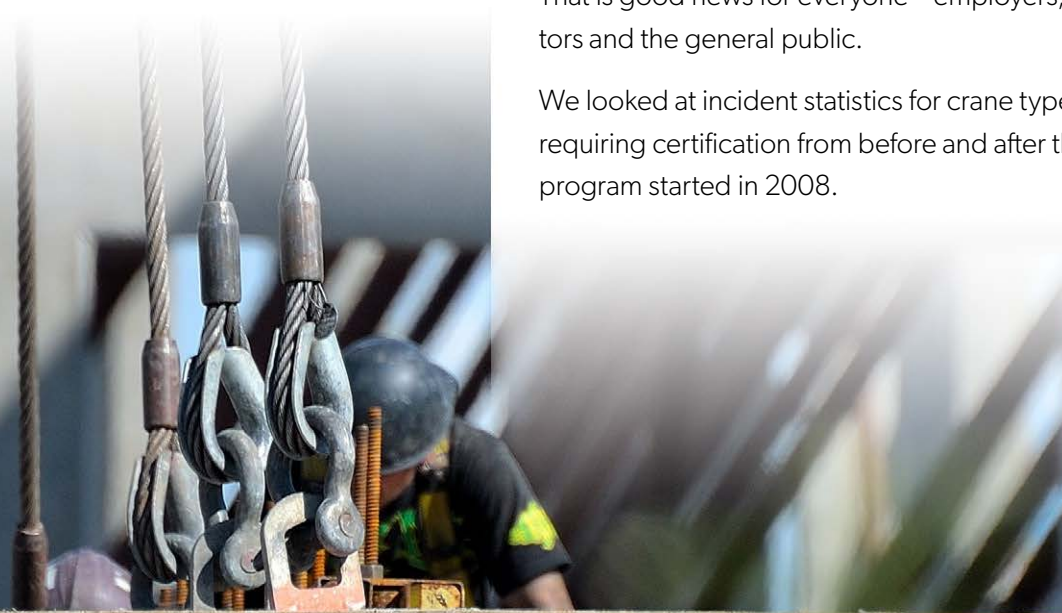
### The Value of Certification

BC Crane Safety was formed to create a certification program at a time when there was no way of telling whether crane operators had the skills and knowledge needed to work safely. It took many years of consultation to get to where we are now, with a unique made-in-BC competency-based certification program. The program went into effect in 2008, became mandatory in 2011, and now, almost a decade later, we wanted to measure the precise impact it has had on safety.

This has been more complicated than it may seem. Many industries use cranes, making it difficult to isolate incident statistics that are specific to crane operations. The way these statistics are collected means they tend not to be classified by equipment type and end up in the general mix according to industry sector, but not always. Ups and downs in the economy also play a role. If fewer people are working fewer hours, for example, one would expect fewer injuries. But we found out that dips in the economy aren't necessarily enough to explain the reduction in incidents we've seen since the BC Crane Safety certification program started.

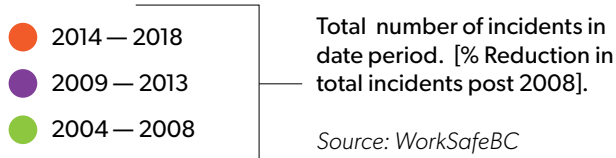
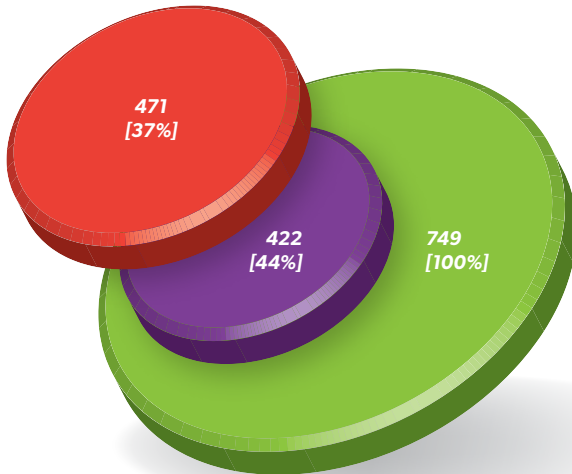
That is good news for everyone – employers, operators and the general public.

We looked at incident statistics for crane types requiring certification from before and after the program started in 2008.



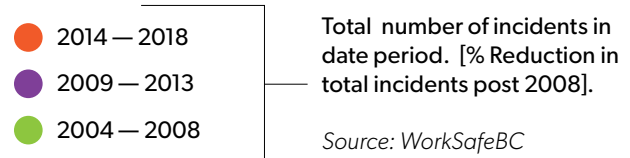
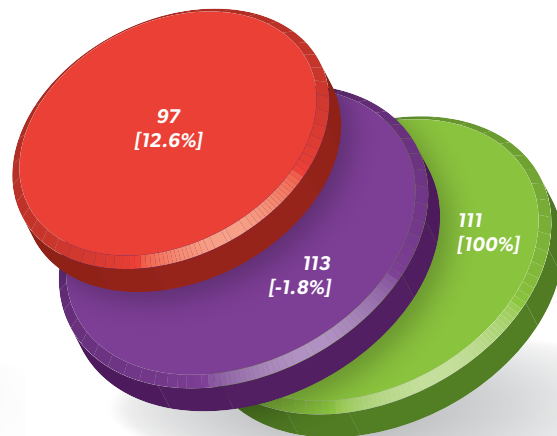
## Certified Crane Operators

Reduction in crane related loss-time claims post certification program



## NON-Certified Crane Operators

Reduction in crane related loss-time claims post certification program

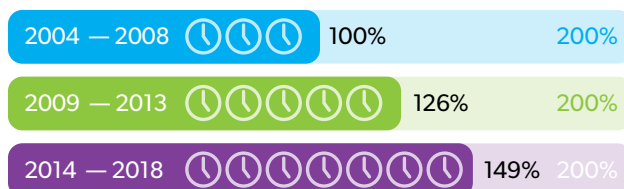


Then we looked at statistics for cranes that don't require certification from the same years. Incident reports went up for that group during the five years right after the certification program was implemented and the 12.6 per cent reduction we saw between 2014 and 2018 is nothing like the 37 per cent reduction for cranes requiring certification.

But because of the 2007 — 2008 financial crisis, we needed to find out if this reduction happened because there was less work going on. We discovered that there was an increase in the number of hours crane operators worked between 2008 and 2018!<sup>5</sup>

Crane operators were working more hours but getting hurt less often. We thought it was safe to assume that's because they had to be certified under the BC Crane Safety program, but we took an extra step to make sure. We compared the statistics related to crane operations with overall injury rates in some of the industries that use cranes.

## Percentage change in BC Crane Operators average total hours relative to 2004 — 2008



[5] Source: Statistics Canada Labour Market Survey, 2004 — 2020. Reproduced and distributed on an "as is" basis with the permission of Statistics Canada. Note these are not sums of all the actual hours worked during the year. They are annual 12-month averages of the total number of hours actually worked by all employed crane operators in British Columbia in the Labour Force Survey reference weeks.

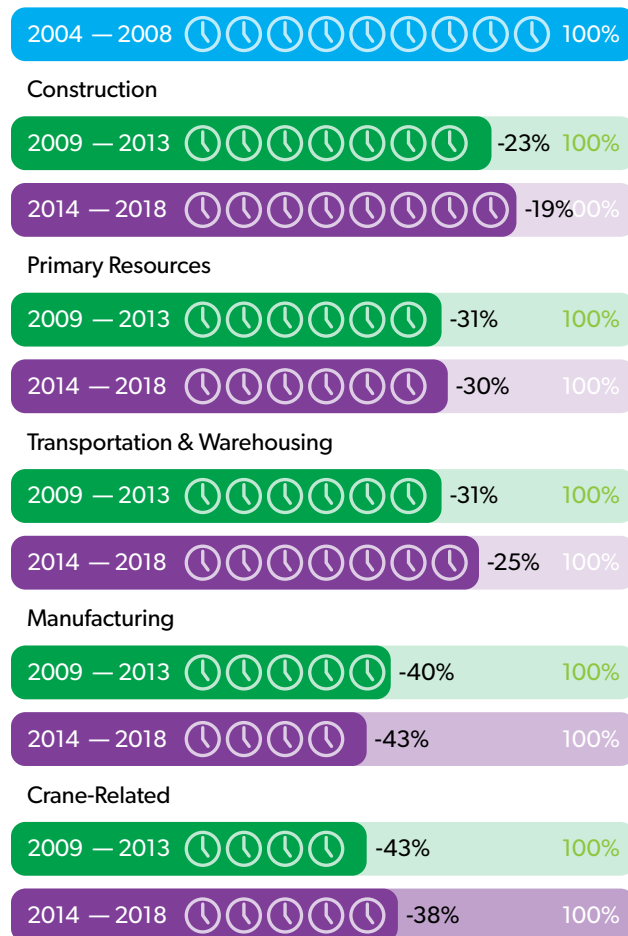
## 2020 Highlights

We found that the crane statistics outshone the general statistics by a long shot.

We will keep researching and we will be sure to communicate what we discover. For now, we are confident in saying that the BC Crane Safety certification program is fulfilling its number one goal: safe and effective crane, hoisting, and rigging operations throughout British Columbia.

### Comparative Reductions in Loss-Time Claims Relative to 2004 — 2008

*(Post Certification Program)*



### Resources

A key part of our mandate is to support safe and effective crane operations in BC. We scour the world for best and better practices and adapt them for BC. We work with collaborators like crane operators, owners, and employers, Canadian and international regulators, unions, trade associations, and educators. This approach ensures that the resources we develop are current, proven and useful for our stakeholders.

A full list of downloadable resources is available on the BC Crane Safety website at [www.bccranesafety.ca](http://www.bccranesafety.ca) on the “Resources” page. Here are some of the resources we developed this year:

#### Tower Crane Assembly and Dismantling Checklist

In co-operation with a number of stakeholders including municipal and technical engineers, BC Crane safety has developed a suite of resources for the assembly and dismantling of tower and self erect cranes. These resources help to ensure that safety is top-of-mind every step of the way.

The City of Vancouver is piloting a program requiring a completed BC Crane Safety Tower/Self-erect Crane Assembly/Dismantling checklist be submitted before the city will issue a road permit. It’s a win-win-win for operators, employers and the general public because the requirements are now clear and transparent.

#### City of Vancouver: Supporting Safety on Site

BC Crane Safety works with municipal governments to develop and implement resources to protect worker, worksite and public safety. The Tower/Self-erect Crane Assembly/Dismantling checklist is an important result of that effort.

## Provisional Crane Operator Competency Support

BC Crane Safety has developed resources to clarify the roles and responsibilities of supervisors of provisional operators. These are intended to support understanding and compliance on the part of operators, supervisors and employers by making the Occupational Health and Safety Regulation requirements easier to understand.

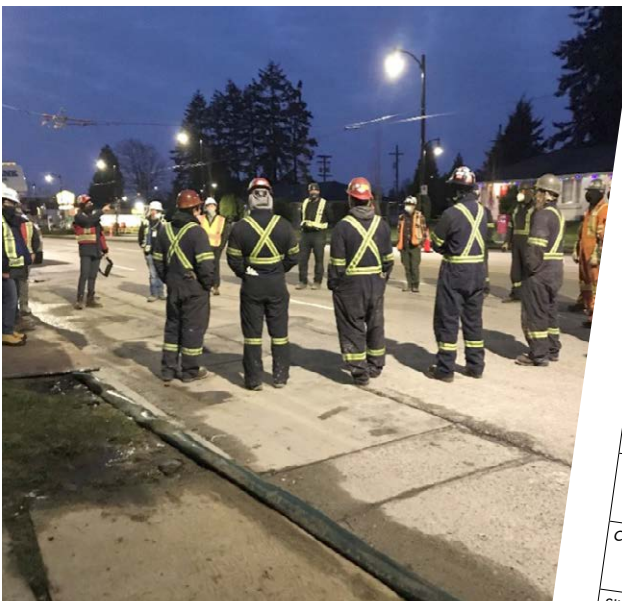
### Programs

#### Level Up: Own Your Lift

#### Focused Planned Self-Inspections WorkSafeBC Crane and Mobile Inspections Initiative

BC Crane Safety is collaborating closely with WorkSafeBC's Crane and Mobile Equipment team to implement focused workplace inspections by producing more than 1000 inspection workbooks covering:

- Employers/Owners
- Provisional Operator Supervisors
- Crane Assembly Supervisors
- Preventive Maintenance
- Crane Operators.



February 2021: A group of crane operators and supervisors meets with City of Vancouver officials to plan the assembly of a tower crane.

This program is all about transparency and education. BC Crane Safety's role is to use these workbooks to inform employers about how to prepare for WorkSafeBC officers' inspections and make sure they are following the requirements of Occupational Health and Safety regulations and CSA standards. They will be available for download on our website and on USBs which will include additional resources. We plan to pilot these workbooks in 2021 and are planning to expand the program to include mobile cranes in the future.

# 2 Provisional Operator Supervisor Workbook

Level Up: Own Your Lift

Inspection Instructions

**NOTE:** Ensure **all** workbook questions are completed. If during the inspection, you encounter a hazard that places any worker at significant risk, you must discontinue this planned inspection and ensure appropriate corrective action is taken before resuming the inspection.

**Instructions** — Plan the inspection. Complete this Workbook during the Provisional Operator Supervisor inspection with the representatives for prime contractor, crane owner/user, crane supervisor, and crane operator.

Date of inspection (dd/mm/yy):		ID number:	
Prime contractor:		Superintendent:	
Project name:		NOP#:	Address:
Crane owner:		Leased by:	
Crane operator:		Operator Cert. #:	Full scope: Provisional:
Site supervisor:		Provisional operator's designated supervisor:	
<b>Office use ONLY:</b>			
Received date (dd/mm/yy):			

## 2020 Highlights

### Hard Hat Decal Program

Did you know that we have new hard hat decals sporting our new BC Crane Safety logo? Now BC crane operators can display their pride in their achievements. BC Crane Safety certified operators have every reason to be proud. They are among the most skilled crane operators in the world!

Level Up! Show your pride.

Take a photo of yourself with your BC Crane Safety decal on your hard hat at your job site and email your photo to [info@bccranesafety.ca](mailto:info@bccranesafety.ca). By emailing your photo you give permission for posting on the Wall of Fame on the BC Crane Safety website, coming soon! Get your hard hat decal and let us know what your career means to you.

Contact us!

email: [info@bccranesafety.ca](mailto:info@bccranesafety.ca)

phone: 604-336-4699

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

### Standards Development

#### Rigging Standards

BC Crane Safety consulted with stakeholders across Canada over many years to develop national standards for professional riggers and signalpersons. A draft standard was approved by the Crane Rental Association of Canada (CRAC) in 2019. Now, we are engaging with the federal government to establish a national certification program. There is a saying among tower crane operators: "It takes two to operate a crane". All crane operators need to have confidence in the skills of the riggers they work with for everyone's safety. A national certification program would make that possible across the board.

#### Telehandler Operator Standards

BC Crane Safety is advocating for enforceable safety standards and rules for telehandlers. This is because telehandlers are a class of equipment that has evolved rapidly in recent years. New technologies and equipment capacities have led to serious incidents all over the world. Some have been tragically fatal. BC Crane Safety stands with many other regions leading the call for greater safety in telehandler operations.



## ISO/IEC 17024 Accreditation

BC Crane Safety is working toward becoming an accredited certification body under ISO/IEC 17024 through the Standards Council of Canada. What does that mean? The ISO is the International Standards Organization which, as the name suggests, sets global standards for many industries and activities, including certification. It is a complex process during which all aspects of the certifying body's operations are scrutinized through a comprehensive audit, measured against the best and most reliable certification programs in the world.

For BC Crane Safety, and for the crane owners, employers, operators, and other stakeholders we serve, that means greater opportunities for labour mobility across industries as well as provincial and international borders. It enhances all the work we do to make sure our certification program maintains the world-class distinction it has today.

## Labour Mobility

In July 2020, BC signed a landmark agreement with a European organization, ECOL, responsible for crane operator licensing in the EU. This Mutual Recognition Agreement (MRA) recognizes the equivalency of BC Crane Safety's mobile crane operator certificates with those of a growing number of EU nations.

This means operators with BC Crane Safety Mobile Crane Operator Full Scope Certification can work in Europe without having to get a European certification. The same goes for European operators from participating jurisdictions wanting to work in BC.

This is good news for operators and employers, providing a much more flexible approach to labour mobility and the international assurance that BC

Crane Safety-certified mobile crane operators are among the most highly skilled in the world.

This agreement opens the door to great opportunities.

## Why do only BC Crane Safety-certified operators have this privilege?

After many years of negotiation, BC Crane Safety was able to come to this agreement precisely because BC's certification program is recognized as meeting or exceeding the EU's highest standards. BC is the only province in Canada with standards that are considered equivalent and interchangeable with those of the EU.

BC Crane Safety-certified operators wishing to work in Europe must apply to the European Crane Operator License Foundation (ECOL) and comply with immigration laws. Canadian immigration laws apply to operators from Europe applying to work here.

Currently the Netherlands and Belgium have met ECOL's standards, and the number of participating EU nations is quickly expanding. Germany, Denmark and Spain are expected to sign on in 2021. The UK is also working to demonstrate equivalency with the ECOL standard and has independently entered into discussions with BC Crane Safety.

BC Crane Safety's agreement with the Yukon Workers' Health and Safety Board means operators from that territory can also have access to the benefits of this agreement with the EU. Our ultimate goal is to make the advantages of BC Crane Safety's certification program available to all Canadians.

## PART 3 – Our Collaborators

Over the years, since BC Crane Safety was officially established in 2005, we have had the privilege of consulting with hundreds of generous individuals who have volunteered their time and expertise to the development of BC's crane operator certification system. They have been crane operators, owners, contractors, labour representatives, industry associations, suppliers, manufacturers and employers along with a host of other experts.

Without their contributions, we would not be where we are today. We thank everyone who has given their valuable time and knowledge to develop our world-class certification scheme.

In addition, we would like to extend our special thanks to the contributions of some of our key collaborators including:

- WorkSafeBC
- Yukon Workers' Compensation Health and Safety Board

- Fulford Certification
- Industry Training Authority (ITA-BC)
- 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)
- US Occupational Health and Safety Administration (FED-OSHA)
- European Crane Operators Licence (ECOL)
- European Association of Abnormal Transport and Mobile Cranes (ESTA)



### 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 system as BC crane operators. This automatically provides Yukon crane operators the same national and international mobility as BC crane operators.

The Yukon-BC relationship has been going strong since the beginning. 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 demonstrating competency and certification. This is the basis for the legal requirement for crane operator certification and also the foundation for mutual agreement on the use of the same standards and assessment system in both BC and the Yukon.





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 certification program were conducted in the Yukon Territory in 2008.

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

Because 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 to get the information, resources and training they need. BC Crane Safety has an

administrative and oversight role, maintaining the certification standards and supports such as the registration system and online logbooks.

Theoretical and practical training is provided through the Yukon University and, through private-sector collaboration, ATCO Electric provides training specific to utilities. Competency assessments are delivered by BC-based Fulford Certification.

Since certified operators in BC and the Yukon 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 the European Union.

# PART 4 – FINANCIAL STATEMENTS

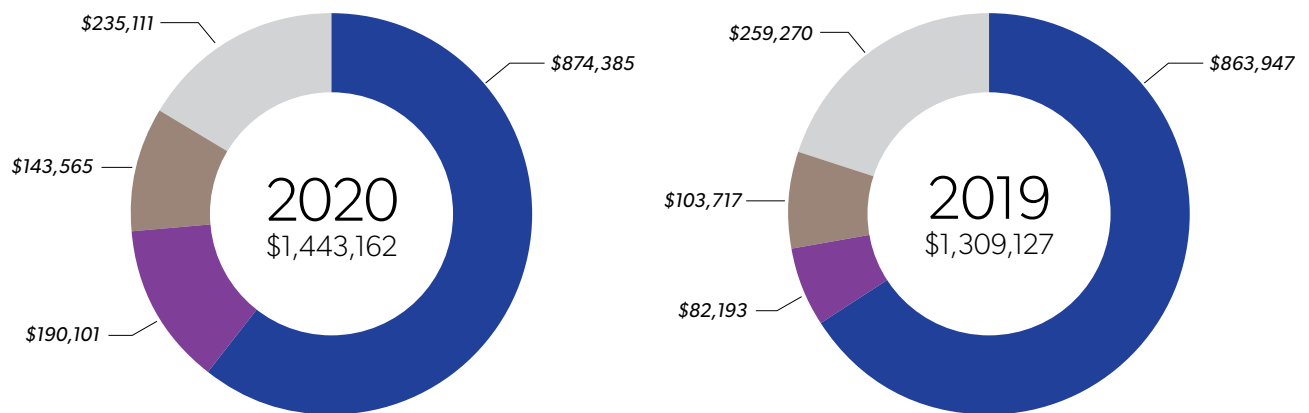
## BC Association for Crane Safety, 2020 Fiscal Year in Review

### Funding — Operations



- WorkSafeBC
- Temporary Wage Subsidiary
- Industry Training Authority
- Ministry of Employment, Workforce Development and Labour (tint = refund)

### Expenditures — Operations



- Salaries
- Consultants
- Office Rent
- General

Audited financial statements can be viewed at: [www.bccranesafety.ca/about/year-end-reports](http://www.bccranesafety.ca/about/year-end-reports)





**BC Association for Crane Safety**

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**[www.bccranesafety.ca](http://www.bccranesafety.ca)**