

2023 Annual Report



Certification Renewal



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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 Clinton Connell, Roberta Sheng-Taylor, August Lam, Site Partners. Images of Directors supplied by themselves. Writing and Editing by Michelle Harding. Design and Layout by TAP Graphics Ltd.*

* Stock imagery also utilised.

Message from the Chair

Jeff Gorham



I have served as a member of the Board of Directors for BC Crane Safety since 2016. During those eight years I have had the privilege and honor to work with many Industry professionals who all have a passion for the crane industry and the desire and dedication to make it safer.

In June of 2023, I was appointed Chair. Needless to say, I have big shoes to fill because of all the great work done by the previous Directors who held this role. Special thanks to Jason Gilmore who just completed his two-year term.

For more than 18 years I have worked for the IUOE Local 115 Training Association. Under this employment I have worked closely with industry to provide crane and rigging training. This role has given me insight into the needs of industry and what gaps need to be addressed to improve the standards for those working in this industry.

I would also like to thank Don Stevens from Teck Metals Ltd. for the time that he has served as a Director since 2019. His engineering experience from the mining industry will be truly missed as he moves into retirement.

With a vacant seat to be filled, the Board of Directors felt it important to add a Director with tower crane experience. I would like to welcome Dana Tosoni from Two Pillars Construction. Dana's knowledge and experience will be a major asset to the Board as we continue to look at ways of raising standards for those who assemble, maintain and operate tower cranes.

I would like to thank the Board of Directors and all the BC Crane Safety staff for your dedication and sharing your expertise over the past year. Working in unison, we have had a positive impact in making our industry safer as we strive to achieve some of the highest standards across the country.



Message from the Executive Director

Clinton Connell



Reflecting on the achievements of 2023, I am pleased to highlight the significant strides we're making to advance safety and professionalism within the crane industry.

In 2023, BC Crane Safety published an initial set of 60 Toolbox Talks and numerous bulletins and guidance documents on a range of timely topics that are available on our website.

We continue to provide regulatory feedback on proposed changes and updates to our stakeholders. We co-hosted informative webinars to discuss newly introduced OHS regulations and promote the rewarding nature of careers in crane operations with a focus on professionalism, inclusion and, of course, safety.

The crane industry is evolving rapidly. BC Crane Safety is dedicated to responding to these changes and anticipating new developments. One of the things we've been hearing from employers on the ground is the increasing demand for skilled, competent, certified crane operators.

That's why BC Crane Safety is gearing up to deliver on the requirement for Certification Renewals. This was part of industry's original vision for the certification program when it started to be developed in 2004.

Certification Renewal will play a vital role in upholding industry standards and ensuring the ongoing competence of crane operators. It will be a streamlined, credible, accessible, easy-to-use way for operators to demonstrate their ongoing competencies, knowledge and professionalism over a five-year cycle. The benefits will extend to everyone involved in the crane trades.

As we work to further develop and ultimately implement a practical, efficient Certification Renewal process tethered to an international standard, 2024 promises to be a busy and exciting year.

I want to extend my sincere gratitude to the BC Crane Safety Board, staff, and our collaborators for their support throughout the past year. Special thanks to WorkSafeBC, Yukon WSCB, SkilledTrades BC, Fulford Certification, IUOE, and industry association partners including CCRA, COCA, ICBA, BCCSA, and BCCA for their many valuable contributions to our shared goals.



PART 1 – WHAT WE DO

BC Crane Safety — Crane Operator Certification & Licensing Authority for BC

BC Crane Safety was incorporated as an Industry-led, not-for-profit association in 2005 to develop a certification program for crane operators in British Columbia. At that time, there was no common standard to ensure that crane operators met minimum competencies. Before inception, there were serious incidents, including fatalities. Industry called for the mandatory certification of crane operators, which is why BC Crane Safety was formed.

We are BC's **crane operator certification authority** and administrator as designated by WorkSafeBC.

We are a **Health and Safety Association (HSA)** providing leadership and support for health and safety in crane hoisting operations and serve as an advisory body for regulatory matters.

We collaborate closely with industry, labour, regulators and governments to develop, maintain and implement competency-based occupational **standards** for assessments and certification.

We are primarily funded by WorkSafeBC. We thank them for their continued support and commitment to collaboration and innovation.

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



Our Guiding Principles

Our Vision:

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

Our Mission:

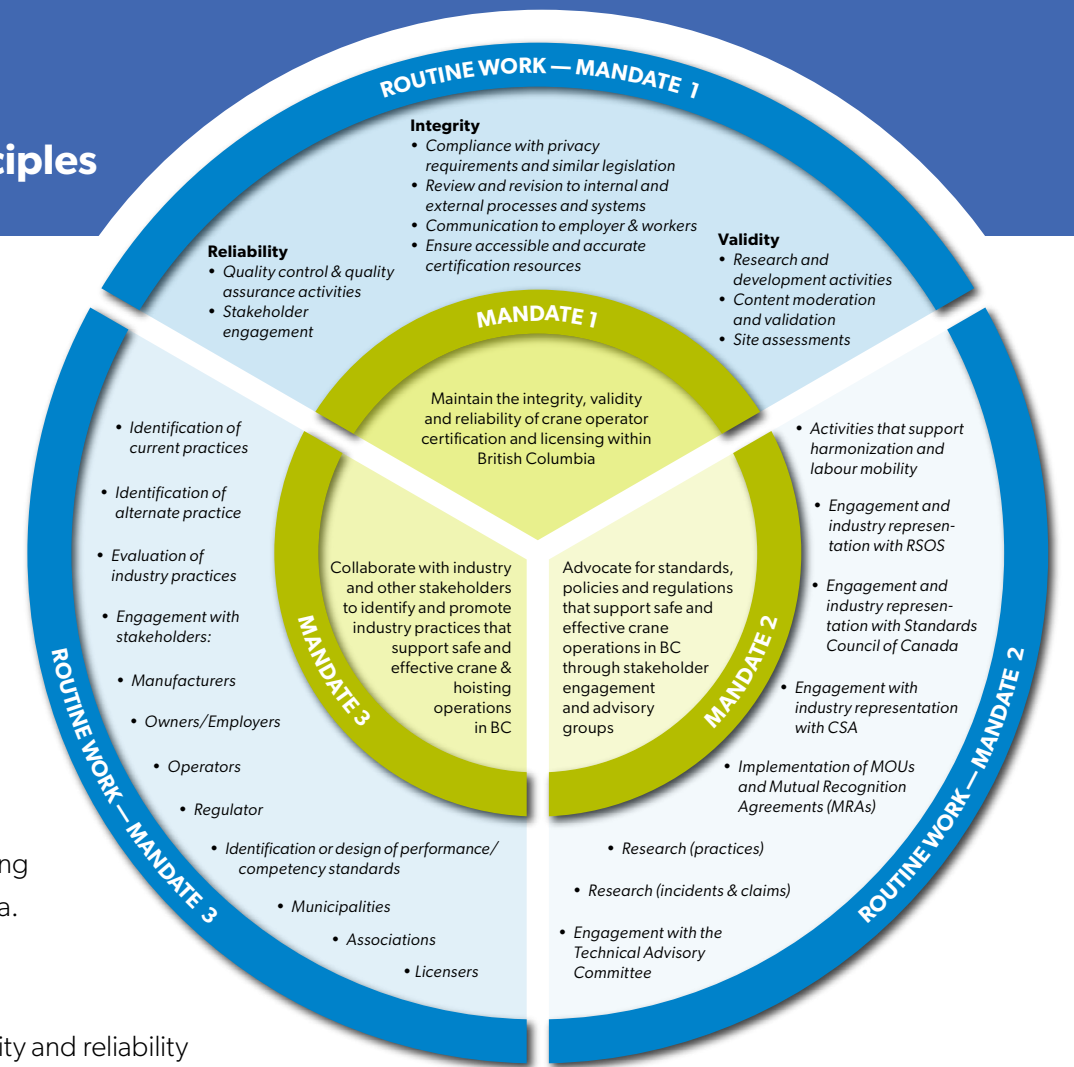
To engage with our stakeholders concerned with cranes, hoists and rigging, including employers and workers, across multiple sectors to support safe crane and hoisting operations in British Columbia.

Our Mandate:

- Maintain the integrity, validity and reliability of crane operator certification and licensing within British Columbia
- Collaborate with industry and other stakeholders to identify and promote industry practices that support safe and effective crane & hoisting operations in BC
- Advocate for standards, policies and regulations that support safe and effective crane operations in BC through stakeholder engagement and advisory groups.

Our Organizational Objectives:

- 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:

- Leadership
- Stewardship
- Transparency
- 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 are allowed to be voting members. Our Board also includes non-voting representatives from WorkSafeBC, the Yukon Workers' Safety and Compensation Board, SkilledTradesBC and Fulford Certification.

Our Board represents a cross-section of stakeholders including:

Crane types:

- Mobile Cranes
- Boom Trucks
- Tower Cranes
- Self-Erect Cranes

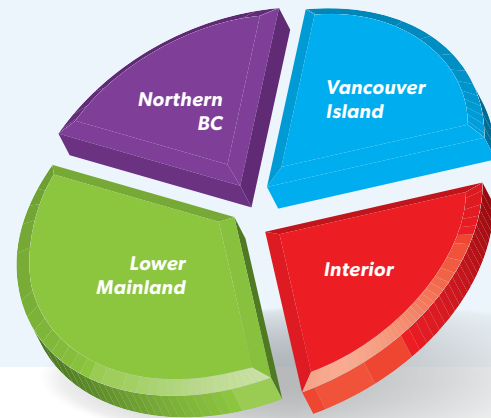
Industry sectors:

- Heavy Industry
- Engineering
- Power and Utilities
- Marine and Piledriving

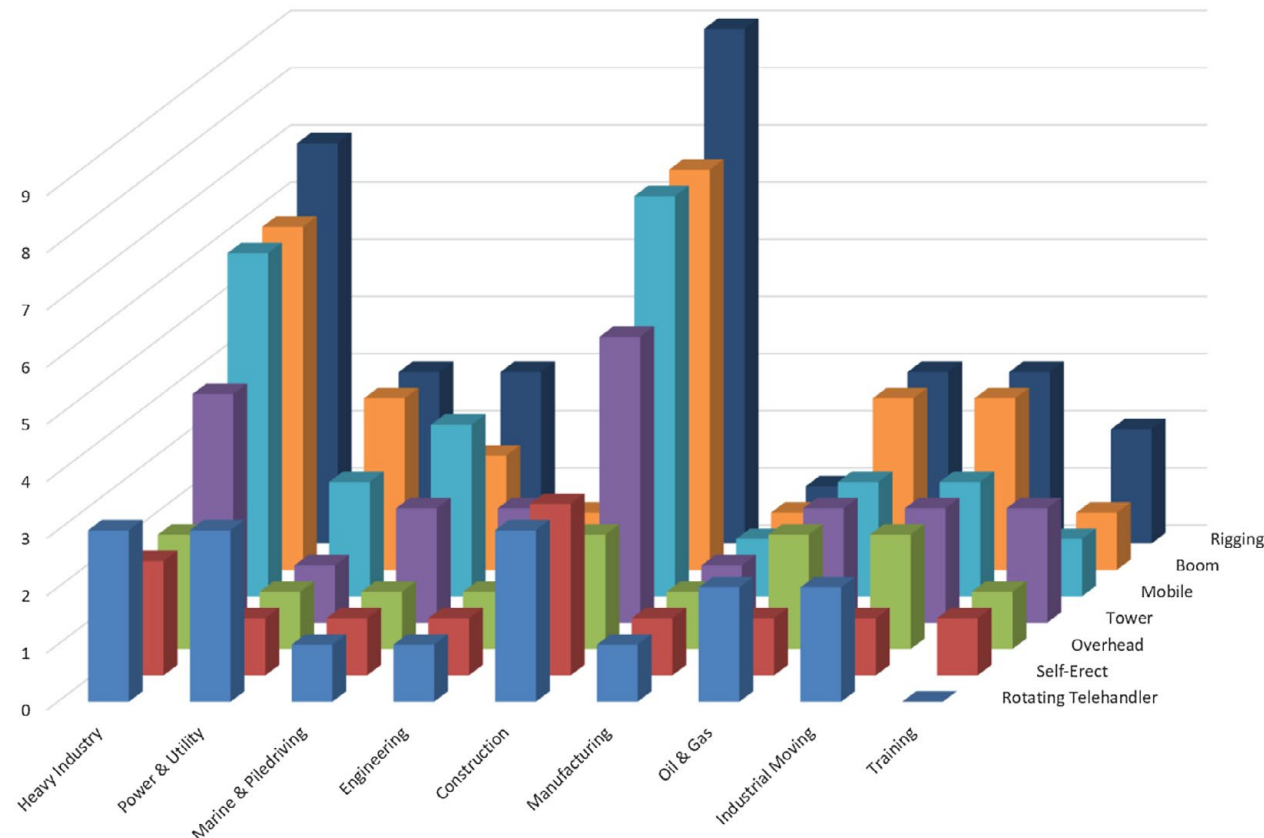
Regions in BC:

- Lower Mainland
- Interior
- Vancouver Island
- Northern BC

Board Representation by Region — 2023



Board Member Representation by Sector and Equipment Type — 2023



Jeff Gorham
(Chair)

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. Jeff has been contributing his expertise and knowledge to BC Crane Safety through his service on the Board since 2016. He stepped into the role of Chair in 2023.



Gary Klynsoon
(Vice Chair)

NorLand Group, Burnaby, BC

Gary Klynsoon is Senior Vice President – Industrial Services with NorLand Limited. His career in the crane, rigging and industrial moving business includes previous tenures at Apex Industrial Movers, GWIL, Eagle West, EW Wind Energy and SureSpan. Gary is a Red Seal-certified crane operator and a Professional Project Management leader, with more than 30 years of experience in strategic planning, project management, team development and a focus on safety-first operations. Gary joined the BC Crane Safety Board in 2022.



Ryan Stewart
(Secretary/Treasurer)

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



Jason Gilmore
(Past 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 30 years. Jason joined the BC Crane Safety Board of Directors in 2016 and was Chair from 2021 to June 2023.



Steve Gibson

Kiewit, Edmonton, AB

Steve Gibson is Project Crane and Equipment Manager at Kiewit. With more than 20 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 valued member of the BC Crane Safety Board of Directors since 2015.



Matthew Blackwell

RKM Crane Services, Langley, BC

Matthew Blackwell has been actively involved in the crane and hoisting industry for more than 20 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, and received his formal training in the UK. 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.



Eric Nipius

**Oxford Builders Supplies,
Abbotsford, BC**

Eric Nipius is Director of Operations at Oxford Builders Supplies which specializes in the assembly and dismantling of tower cranes and construction hoists, as well as related matters such as electrical, transportation, formwork, training, below-the-hook lifting devices, propane fuel supply, temporary heat, as well as various construction equipment rentals. He has served as Service Manager, Crane Chargehand, and lead technician for Leavitt Cranes and shift mechanic at a BC sawmill. He is a Red Seal Industrial Mechanic (Millwright). Eric joined the BC Crane Safety Board in 2022.



Craig Longmuir

**Fraser River Pile and Dredge,
New Westminster, BC**

Craig Longmuir has been working with FRPD since 1990 and is currently in the role of VP, Construction. Craig holds a diploma in Engineering Technology from BCIT and a certificate of Management Excellence from UBC. He serves on the Jurisdictional Assignment Plan Board of Directors for Construction Labour Relations of BC. His unique expertise in the marine sector and in managing crane-based heavy construction projects makes him a valuable addition to the BC Crane Safety Board of Directors which he joined in 2022.

PART 2 – BC CRANE OPERATOR CERTIFICATION

Certification by the Numbers — 2023

Our Board of Directors



Dana Tosoni

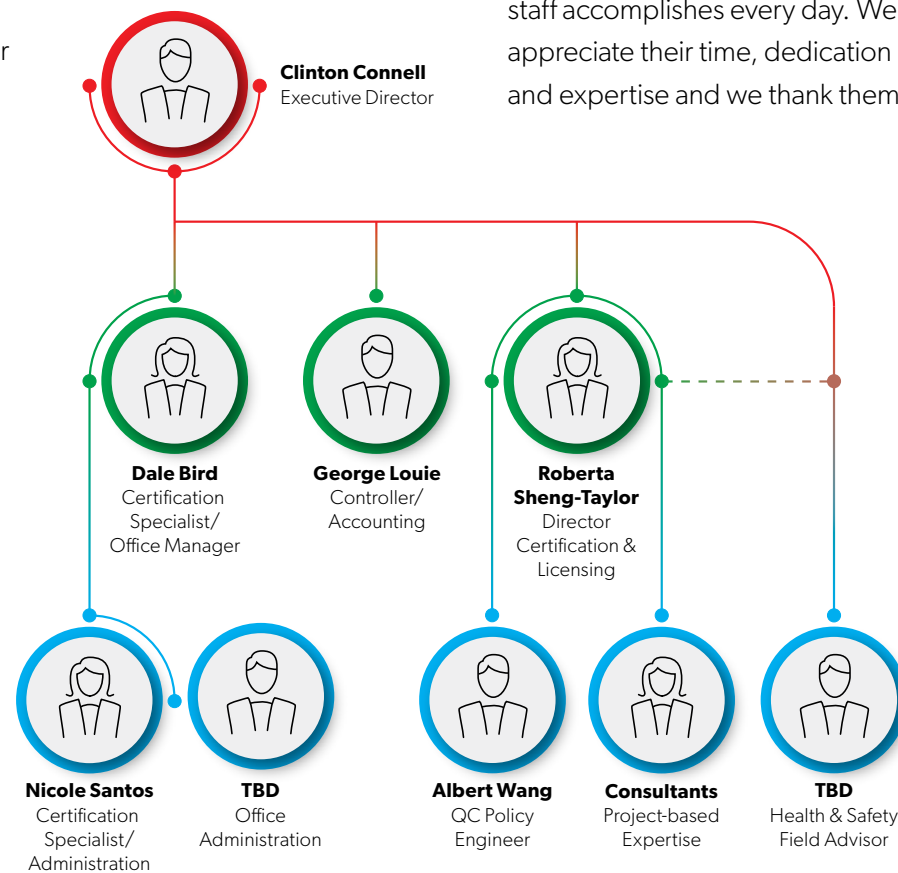
Two Pillars Construction

Dana Tosoni is Crane Manager at Two Pillars Construction. He began his crane career as a rigger in 2006 and moved on to crane operations, pre-erection crane service and eventually became Lead Erector under the direction of Morrow Equipment. Dana has led crane operations for various companies throughout Western Canada on commercial and industrial projects. With his specialized expertise in mobile cranes and the assembly, reconfiguration and dismantling of tower cranes, Dana has been a valued member of the Board since mid-2023.

Past Board Directors

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 our past Directors 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 be possible without their leadership and expertise.



Our Staff

We're proud of our team. Each staff member is a talented and experienced professional in their area of expertise including occupational health and safety, certification analysis and management, finance, administration, and operations.

The BC Crane Safety team keeps us going every day, managing occupational health and safety queries and initiatives, taking telephone enquiries, processing assessment records and certification applications and finances to support employers, supervisors and operators in the field. This is just a small fraction of what our staff accomplishes every day. We appreciate their time, dedication and expertise and we thank them.

Thanks to the help of our assessment partners, Fulford Certification and SkilledTradesBC, there are more than 23,100 credentialed crane operators currently registered in BC. There are about 1,650 new operators progressing through the system, working to earn their certifications every day.

There are six levels of credentials for 11 different crane classifications.

Full Scope Certification 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

The **Provisional** designation is intended for trainees and apprentices. It allows operators to gain experience under direct or indirect supervision by competent and qualified people until they get their Full Scope certification.

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

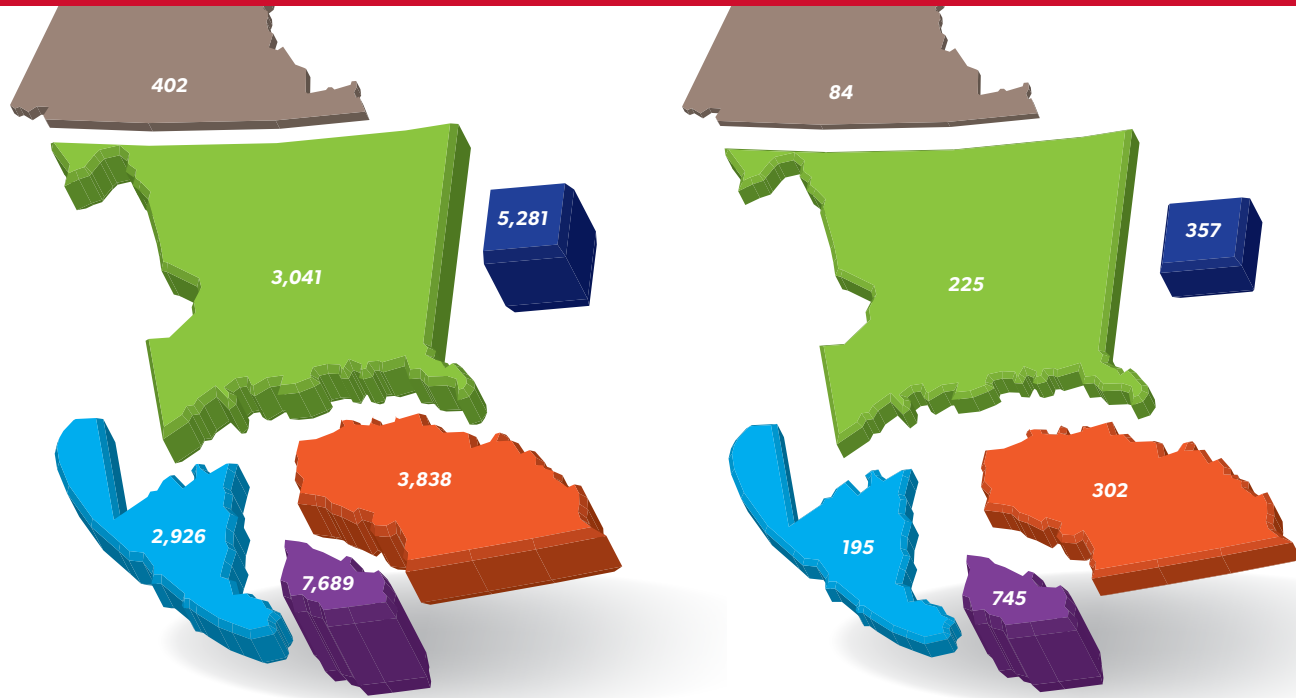
The **Crane Mechanic** credential is intended to allow mechanics to operate a crane for the purpose of repair and maintenance only. No commercial lifts are allowed.

The **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 always required.

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



Certification by the Numbers 2023



Total Active Registrations by Region — 2023

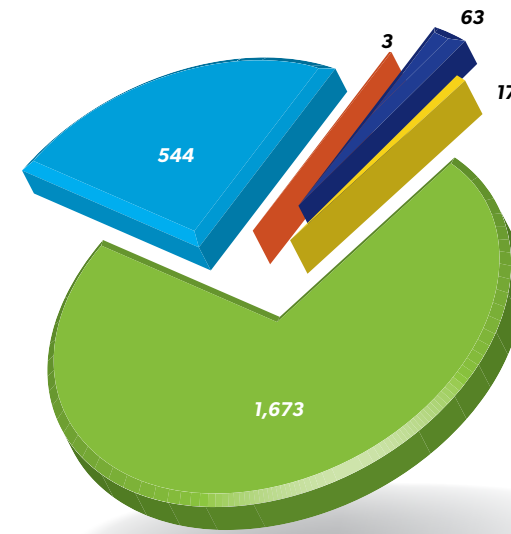
- Vancouver Island
- Interior
- Lower Mainland
- Northern BC
- Yukon
- Other Jurisdictions

In 2023, BC Crane Safety had 23,177 active crane operator registrations on record

New Registrations by Region — 2023

- Islands/Sunshine Coast
- Interior
- Lower Mainland
- Northern BC
- Yukon
- Other Jurisdictions

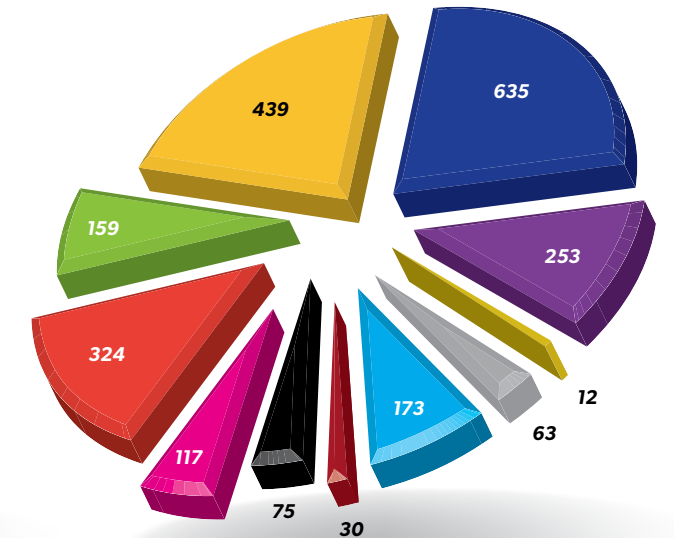
Crane operations touch industries in all parts of BC, the Yukon and beyond. BC Crane Safety staff processed 1,908 new registrations in 2023.



Certifications by Credential Type — 2023

- Full Scope
- Provisional
- Limited Scope/Fixed Location
- Crane Mechanic
- Letter of Permission

In 2023, BC Crane Safety issued 2,300 crane operator credentials across all levels, classifications and regions.



Certifications by Crane Type — 2023

- Folding Boom 10 tonnes & under
- Folding Boom 22 tonnes & under
- Folding Boom unlimited
- Stiff Boom 20 tonnes & under
- Stiff Boom 40 tonnes & under
- Stiff Boom unlimited
- Mobile Crane 20 tonnes & under
- Mobile Crane hydraulic 80 tonnes & under
- Mobile Crane
- Self-Erect Tower Crane
- Tower Crane

The Crane Mechanic and Letter of Permission designations are not tied to a particular type of crane and are therefore not included here.

The Impact of Crane Operator Certification

The benefits of certification speak for themselves. Certification has led to a proven reduction in crane-related incidents in BC. It also gives BC Crane Safety certified operators access to more opportunities to earn competitive incomes and enjoy satisfying careers. Because the BC Crane Safety certification program is so widely respected in the global community, operators have expanding opportunities to engage in various national and international markets.

Representatives from more than fifty industries that use cranes came together in 2004 to demand a certification program in BC. That's why BC Crane Safety was formed: to develop the program — for industry and by industry.

Certification became a regulatory requirement in BC in 2007 and was adopted in the Yukon Territory in 2009. BC is the first Province in Canada to have introduced this type of legislation. Developing a certification program and the required standards upon which it must be based takes an enormous amount of effort, determination and co-operation from industry. BC is particularly fortunate to have the necessary, ongoing will and support from stakeholders.

Soon, BC Crane Safety's certification process will include a periodic maintenance element. This will attest to the currency of operators' competencies, knowledge and experience. It simply means that certified full scope crane operators will be able to show they are keeping up with new developments over the course of their careers. This requirement to stay current is called "Certification Renewal".

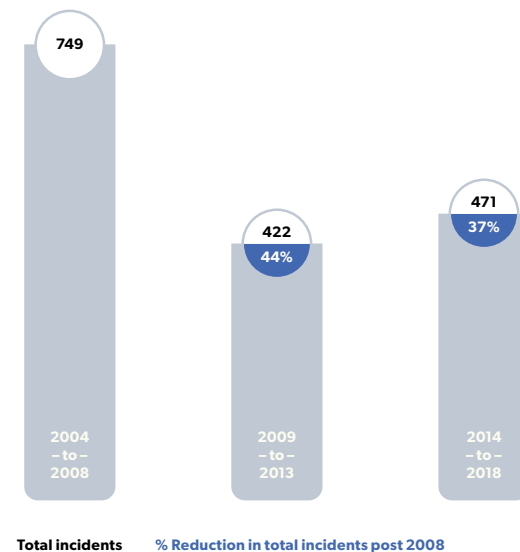
BC Crane Operator Certification Results in Positive Safety Impacts

The evidence is clear. BC's crane operator certification program has had a positive impact on safety since it was implemented.

Comparing the two five-year periods since the start of the certification program in BC, we found a significant drop in the number of workplace injury claims associated with the crane types that require certification.

The same finding did not appear when examining crane classifications (such as gantry and overhead cranes) that don't require certification.

Reduction in Crane related Loss-Time Claims post certification program (certified cranes only)



It's also worth noting that the average number of hours worked had almost doubled between 2009 and 2013. The number of crane incidents declined dramatically while employment hours were significantly increasing.

The implementation of Certification Renewal will support the continuing positive impact of BC's crane operator certification program.

The Value of Certification Renewal

BC Crane Safety's certification framework has been developed and maintained by the crane industry. It has evolved to conform to international standards for the integrity and validity of certifications.

Since the earliest days of the development of BC's crane operator certification program in 2004, industry has told BC Crane Safety that they wanted a certification program that included periodic renewals. It is an essential part of industry's vision for crane operator certification in BC.

Crane operators work in dynamic environments that require highly specialized professional skills and knowledge. Technology is always evolving with innovations in equipment such as zone limiting devices that are becoming more and more effective at preventing contact with exposed high-voltage electrical equipment or conductors. Occupational health and safety regulations are regularly revised and updated. One example from 2023 is a regulatory change that requires inspections after a crane misadventure (BC OHSR 14.16.1). New safe work practices are continually developed by industry and implemented across the province.

Certification Renewal ensures that crane operators can stay current by keeping their knowledge, skills and competencies up to date.

Crane operators have an enormous responsibility to operate safely and protect other people, equipment and infrastructure on their worksites. BC Crane Safety certified crane operators take pride in their work. They are among the most capable in the world. Professional operators make it their business to stay up to date with changing technologies, work practices and provincial regulations as a routine part of their work.

Certification Renewal is different from initial certification. It follows the operator and allows for the renewal to be completed over the span of a five-year period

Certification Renewal means:

- Employers can retain certified crane operators, enabling them to comply with provincial occupational health and safety regulatory requirements.
- Crane operators can demonstrate and document their ongoing investment in their professionalism, skills development, and adherence to a professional code of conduct.



Steps to Certification Renewal

Industry representatives have told BC Crane Safety that they want to see Certification Renewal take place every five years. It's also clear that stakeholders want to see:

- Credit for continuing professional development and adherence to a code of conduct.
- An easy way to document and verify continued competency, work experience and contact information.
- Acknowledgement of time spent working in the seat.



All agree that Certification Renewal must be reasonable, fair, practical, and efficient. BC Crane Safety will not charge any fees for online renewal and is developing a straightforward online system for documenting achievements. The SkillRecord software app has been updated and modified to SkillRecord Passport. This app is used to document and maintain records and will fully support all the steps to complete Certification Renewal.

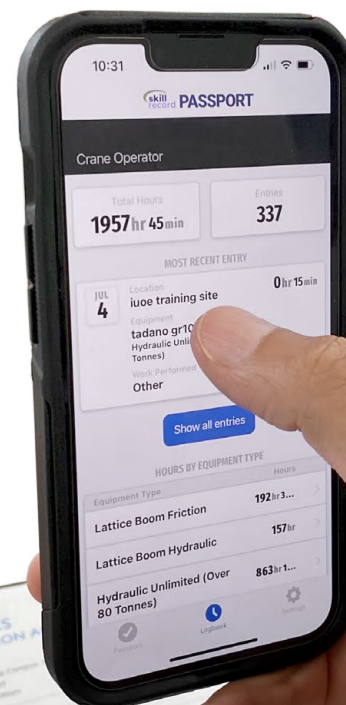
If you are an Employer, Supervisor or Crane Operator...

The Certification Renewal process has been piloted at a couple of sites throughout the province. We're using the feedback and results from that process to work out any problems and make sure that our communication strategies will help operators complete the Certification Renewal process.

Through the implementation of the software and Certification Renewal system:

- Employers will be assured of crane operators' certification records for their ongoing due diligence.
- Qualified supervisors will use SkillRecord Passport to verify (sign-off on) operators' records.
- Operators will be able to use SkillRecord Passport to document and record achievements over five years. They will also be able to show the status of their credentials when asked.

At the completion of the renewal process, prime contractors, supervisors, regulatory officials and employers will continue to be able to verify that an operator's certificate is valid and up to date using SkillRecord Passport.



BC Crane Safety is committed to promoting safe work environments wherever cranes are used. We regularly make a variety of health and safety resources available to help stakeholders implement safe work practices and fulfill their occupational health and safety responsibilities.

We work with collaborators like crane operators, employers, supervisors and owners. We also work closely with provincial and international regulators, unions, trade associations and educators to provide the most current and proven resources possible.

- We post hazard alerts and safety bulletins on worker and worksite near misses, incidents or accidents.
- We post current safe work practices such as inspection forms, mobile and tower crane/self-erect crane assembly/disassembly checklists.
- We post leading trends and data on issues that can impact cranes and crane-related activities, operations, and upcoming health and safety requirements.

See them all at www.bccranesafety.ca. Here's a sampling of some of the resources we worked on in 2023.



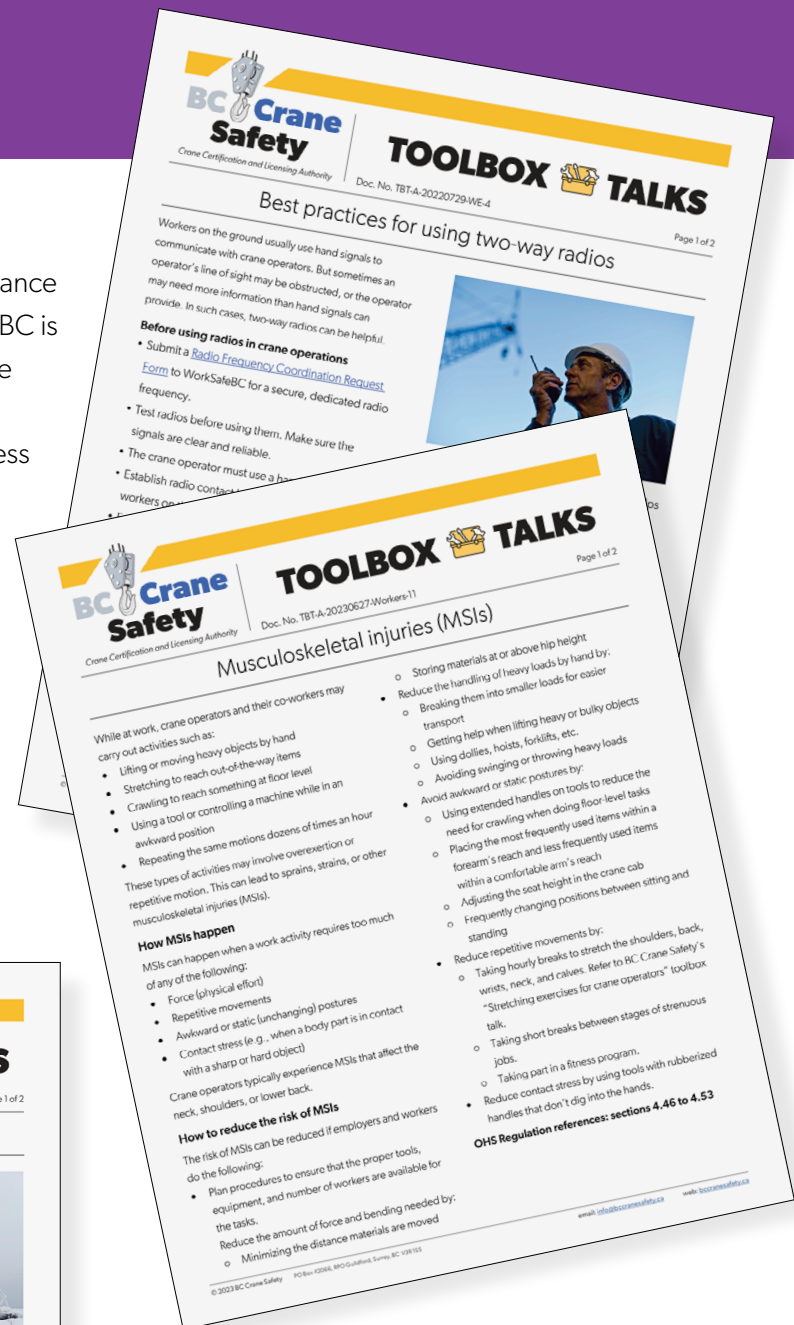
Safety Bulletins and Alerts

BC Crane Safety creates and publishes new Safe Work Bulletins and Alerts every year in collaboration with WorkSafeBC and other subject-matter experts. Our goal is to present regulatory requirements and important safety information in useful, easy-to-understand formats. Two highlights from 2023 include Using Holiday Lights Safely on Tower Cranes (co-developed with WorkSafeBC) and the Hazard Alert, Crane Operators Working in Hot Conditions.

Toolbox Talks

Supporting safety goals and enhancing performance for small and medium-sized crane companies in BC is a top priority for BC Crane Safety. Typically, these companies face resource constraints, making it challenging to develop their own safety awareness tools in-house.

A toolbox talk meeting (sometimes called a tailgate meeting or morning safety talk) is a short session on the jobsite, usually at the start of the shift before work begins, to make everybody aware of the different safety requirements and hazards that may be on the job site that shift. The purpose of a toolbox talk is to increase safety in the workplace by facilitating communication and raising awareness.



TOOLBOX TALKS

Crane Certification and Licensing Authority

Doc. No. TBT-CO-20230411-WE-9

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Working in cold conditions

When we work in cold temperatures, our bodies may experience cold stress. Cold stress occurs when our bodies lose heat faster than they can produce it. Cold stress can put us at risk for hypothermia, a condition in which the body temperature becomes too low. Hypothermia can be life-threatening.

Stage of hypothermia	Signs and symptoms
Mild	Shivering; grogginess; problems with thinking
Moderate	Violent shivering; slurred speech; inability to think; shallow, slow breathing; loss of coordination
Severe	Loss of consciousness; little to no breathing; heartbeat slows, varies, or stops

Humidity and wind can worsen the effects of the cold on workers. Freezing temperatures and unprotected contact with frozen metal surfaces can lead to frostbite.

Preparing for work in cold conditions

When cold weather is expected, employers must do a cold stress risk assessment and prepare a cold exposure plan. Employers also need to take steps to protect workers from the cold, such as providing heating, shelters, and/or other effective controls.

Workers need to take steps to protect themselves from the cold, such as:

- Wear layers of clothing rather than one thick layer.

- Wear warm footwear with one or two pairs of thick socks.
- Take frequent, short breaks in warming shelters.
- Drink warm beverages and eat warm, high-calorie foods.

Cold temperatures can affect cranes

Temperatures below -15°C can affect cranes, and operators need to take more precautions in how they work. Avoid sudden impacts or shocks, and use more caution when hydraulic components are in use. As the temperature drops, the crane's metal becomes more brittle and can break when exposed to impact forces.

In the interior and northern parts of B.C., temperatures may drop below -30°C. At these temperatures, maximum lifts are often reduced by 40%. Regular check-ins with all workers need to be carried out.

If temperatures drop below -40°C, stopping work for the day is recommended for safety.

OHS Regulation references: sections 7.33 to 7.38

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The BC Crane Safety toolbox talks cover five main categories: Equipment & Materials, Rigging, Site Administration, Workers, and Worksite Environment.

This year, we published a series of sixty crane-related toolbox talks on the BC Crane Safety website. Anyone is welcome to use them, and more topics are being developed.

Find them all at www.bccranesafety.ca by searching "Toolbox Talk".

Webinars

BC Crane Safety collaborated with WorkSafeBC, crane and key industry stakeholders, including private sector companies and other industry associations such as the BC Construction Association (BCCA), Council of Construction Associations (COCA), Independent Contractors and Businesses Association (ICBA), and International Union of Operating Engineers (IUOE). Together, we actively engaged in the development and delivery of concise, targeted webinars addressing new regulations and requirements related to zoning devices and Notice of Project — Tower Crane.

Newsletter



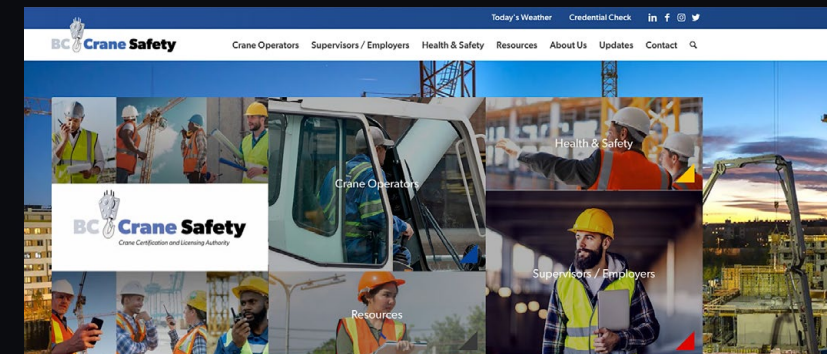
One of the main ways we communicate current information that impacts our stakeholders is through our quarterly newsletter.

Get the latest news and join our growing list of more than 16,000 subscribers by signing up using the banner at the bottom of our website: www.bccranesafety.ca



BC Crane Safety Website

We continue to update and improve our website to provide the most current, useful and comprehensive resources to the crane community. We strive to be your one-stop-shop for all the latest information. Please visit us at www.bccranesafety.ca



Conferences

May 16-18, 2023 marked the return of the Canadian Crane Rental Association (CCRA) Conference to an in-person event held in Vancouver, BC. After the past few pandemic years of online webinar presentations, it was exciting to be able to meet in person to attend informative presentations, the association's AGM, network, and explore the natural beauty surrounding Vancouver.

BC Crane Safety was honoured to participate. BC Crane Safety Executive Director, Clinton Connell, and Director of Certification and Licensing, Roberta Sheng-Taylor, reported on BC Crane Safety's activities including the successful City of Vancouver pilot co-initiative to improve the municipal Tower Crane Notice of Project (NOP) process and the current state of the crane industry in BC.



Promoting the Crane Operator Profession

BC Crane Safety Supports Workplace Diversity, Equity and Inclusion (DEI)

It is not news to employers and business owners that there's a shortage of skilled tradespeople in BC. Crane-related industries continually report challenges recruiting and retaining certified, competent, reliable crane operators. With so much opportunity to have a rewarding career with good earning power and advancement, why should it be so hard to inspire people to pursue becoming professional crane operators?

A few factors come up again and again.

One is that crane operations is not for everyone. It requires unique personality traits and aptitudes plus an interest in taking on a role of significant responsibility.

Another factor that comes up frequently is that many people don't see themselves as potential operators. This can be because of their gender, cultural background or sexual identity to name a few examples of personal characteristics that can hold people back from even considering crane operations as an option.

BC Crane Safety is beginning a diversity, equity and inclusion (DEI) survey project to identify exactly what characteristics help to predict success as a crane operator, and how those traits can be recognized and developed. The DEI survey will go well beyond traditional diversity awareness and education initiatives that have been implemented across the industry so far. The survey is expected to uncover data that will help grow the crane operator profession.

We hope you'll take the survey when it is available in 2024.

Promoting a Diverse Workforce

Part of BC Crane Safety's mandate is to promote crane operations as an attractive career choice. We work with new entrants from all walks of life as they join the crane trades by providing a clear path to success in increasingly diverse workplaces.

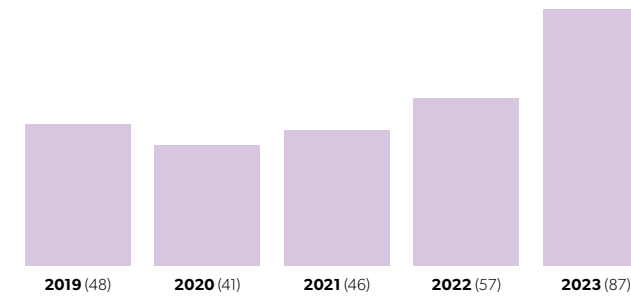
For example, the number of women working in or being trained in the crane trades makes up only a small fraction of the total number of crane operators in BC. We are encouraged, however, to see a steadily rising level of interest from women.

Active registrants by age and gender 2007—2023

MALES	AGE							Totals by district
	19 & under	20-29	30-39	40-49	50-59	60 & over	Unknown	
Lower Mainland	50	1,222	2,176	1,591	1,147	616	726	7,528
Island	10	359	747	589	470	381	306	2,862
Interior	18	399	927	737	666	546	473	3,766
North	34	473	760	519	420	263	509	2,978
Yukon	24	87	113	73	37	16	3	353
Other Jurisdictions	18	512	1,638	1,348	724	465	509	5,214
Total Males	154	3,052	6,361	4,857	3,464	2,287	2,526	20,841

FEMALES	AGE							Totals by district
	19 & under	20-29	30-39	40-49	50-59	60 & over	Unknown	
Lower Mainland	1	53	67	22	11	4	3	161
Island	2	19	21	13	3	4	2	64
Interior	4	17	18	16	10	1	6	72
North	0	19	27	10	7	0	0	63
Yukon	6	19	15	4	4	1	0	49
Other Jurisdictions	0	11	30	20	5	1	0	67
Total Females	13	138	178	85	40	11	11	476

New Female Registrations 2019—2023



BC Crane Safety Remembers

On July 12, BC Crane Safety attended a ceremony in Kelowna to remember the catastrophic tower crane incident that occurred there in 2021 resulting in the tragic loss of four workers on the construction site and one person working in a nearby office building. The victims Eric Stemmer, Patrick Stemmer, Cailen Vilness, Jared Zook and Brad Zawislak will be honoured with the dedication of a new park, Rise Memorial, in Kelowna.

Every April 28, BC Crane Safety observes the Day of Mourning to remember workers who have lost their lives to workplace injury and disease by attending a memorial ceremony in Vancouver and, in 2023, delivering a presentation on the Kelowna incident.



BC Crane Safety participates in the federal Gender-Based Analysis Plan (GBA+), a program 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 is helping to generate data and information that will help us continue to develop strategies to improve recruitment and increase diversity in the crane trades.

The Prosperity Project

The Prosperity Project was created to help stop COVID-19 from setting back women in their careers, especially women with intersecting, diverse identities. BC Crane Safety is proud to participate in the Rosie Advisory Group which launched the Rosie Peer Mentoring Groups in 2022 to support women entering, upskilling or pivoting to careers in STEM, skilled trades and leadership with the help of established mentors.



This year, BC Crane Safety has been reaching out to identify trade organizations with mentoring components in their women in trades programs. BC Crane Safety is conducting an environmental scan to identify actions, programs and initiatives that are meaningful, practical and applicable to BC's crane industry.

Promoting the Crane Operator Profession

Encouraging New Crane Operators

In September 2023, BC Crane Safety and the BC Construction Association (BCCA) co-hosted a webinar, "Explore Crane Operation as a Career". It was part of BCCA's campaign called "A Builder's Life" which is aimed at encouraging people to consider a career in cranes.



A panel of guest crane operators including Gian Grewal, IUOE 115; Ralf Notheis, Big Foot Cranes; Doug Younger, WorkSafeBC; and Clinton Connell, BC Crane Safety, talked about their career paths and the numerous rewarding opportunities crane operations can offer. They also answered questions including some related to learning, achieving certification and ensuring worksite safety.

To watch the one-hour webinar, go to BC Crane Safety's YouTube channel @bccranesafety.

FALL 2023 NEWSLETTER

Tower Crane Maintenance and Third-Party Inspections

BC Crane Safety (BCACS) meets with Greg Teslia and Mike De Jong on the site of a large student housing construction project on the BCIT campus in Burnaby, BC.

Written by BC Crane Safety

In August, BC Crane Safety met up with independent tower crane inspector, Greg Teslia, President of Crane Safety & Inspections Inc. and Mike De Jong, Manager of HS&E Leducor. They, along with two WorkSafeBC officers and two representatives from the crane owner, one a technician, had just climbed down from inspecting a tower crane located at the Burnaby BCIT campus — the site of a 12-storey, 470-unit mass-timber student housing project.

Prime contractors are responsible for protecting worker safety on their projects. That includes conducting regular and ongoing inspections of the workplace and subtrade work areas. Mike de Jong commented that "Greg Teslia is a great resource. Our challenge is that the cranes don't belong to us, and we don't have the expertise." He went on to say that a third-party inspector serves the best interests of everyone involved. Leducor sees third-party tower crane inspections as an important component of their Worksite Inspection Program.

Greg's task is to assess the condition of the crane, from the crane pad to the tip of the jib and from the paperwork to the operator's cab. He wants to verify that the crane has been erected, maintained and operated according to manufacturer specifications, regulatory requirements and CSA and industry standards. He looks at the structural, mechanical, and electrical components. He calls it a "dissection" because no detail escapes his attention.

Age and wear require crane owners to be on top of maintenance and repairs to prevent breakdowns or incidents. Greg's reports help crane owners validate the effectiveness of their inspection and service programs. His list of inspection criteria has more than 160 line

items and he liberally shares his knowledge of service solutions that he gets from other crane owner/operators from across North America. The importance of having the crane owner's service technician on site, as was the case the day we met with Greg, expedites the resolution of any outstanding concerns.

Some of the best discussions Greg has happen at the top of the crane with crane operators. He loves to spend time sharing his mechanical knowledge with them. Not everyone who operates a vehicle understands how it works. The same could be said for workers who drive forklifts, for example. The different makes, models and assemblies of cranes means that there are important mechanical differences between them. Knowing how the brakes work or gear box shifts on a particular crane can go a long way to reducing unnecessary component wear, targeting certain maintenance items, and

increasing productivity. Greg's feedback about the operator he met on this inspection was, "That guy is a professional. He really knows what he's doing!"

Third-party inspections are not new. WorkSafeBC has been conducting them since the mid-1980s and is one of only a few OHS Regulators in North America with a team dedicated to crane safety. Leducor always invites WorkSafeBC to join Greg on his inspections. Occasions like this are perfect for sharing knowledge, discussing challenges, translating standards and regulations into practice, developing shared understanding and recognizing that everyone is on the same team.



A more detailed version of this article is available in the BC Crane Safety Newsletter (Fall 2003) archived at www.bccranesafety.ca/category/newsletter/

PART 4 – STANDARDS AND REGULATION

Standards

ISO/IEC 17024 Standard for Certifying Bodies

BC Crane Safety continues working to achieve alignment with the international standard for organizations that deliver certification.

ISO/IEC 17024 Conformity assessment – General requirements for bodies operating certification of persons requires a comprehensive and regularly recurring audit of all systems, policies and procedures related to the maintenance and administration of the certification program. That means every part of BC's crane operator certification program is being reviewed to undergo the scrutiny of the Standards Council of Canada which administers ISO/IEC 17024 in Canada.

Why does this matter?

Meeting ISO/IEC 17024 requirements is verification that the BC crane operator certification program is consistent with international standards. This means, among other criteria, that the program administrator, BC Crane Safety:

- Clearly identifies the specific tasks and related knowledge, skills and abilities (competencies) required to perform a job.
- Maintains acceptable systems to assess whether a person possesses these competencies.
- Provides independent third-party verification to the public that an individual has successfully demonstrated they possess the defined competencies.

Ensuring the quality of the BC crane operator certification program benefits everyone concerned. It means that crane operators can have their competencies acknowledged, verified and valued. It means employers and the public can have confidence that certified operators are qualified to do their work. It also means that as the world becomes an increasingly global marketplace, the certificate has been granted by a reputable, vetted organization recognized by the global community.



Regulatory Consultation

Mobile Crane Transport

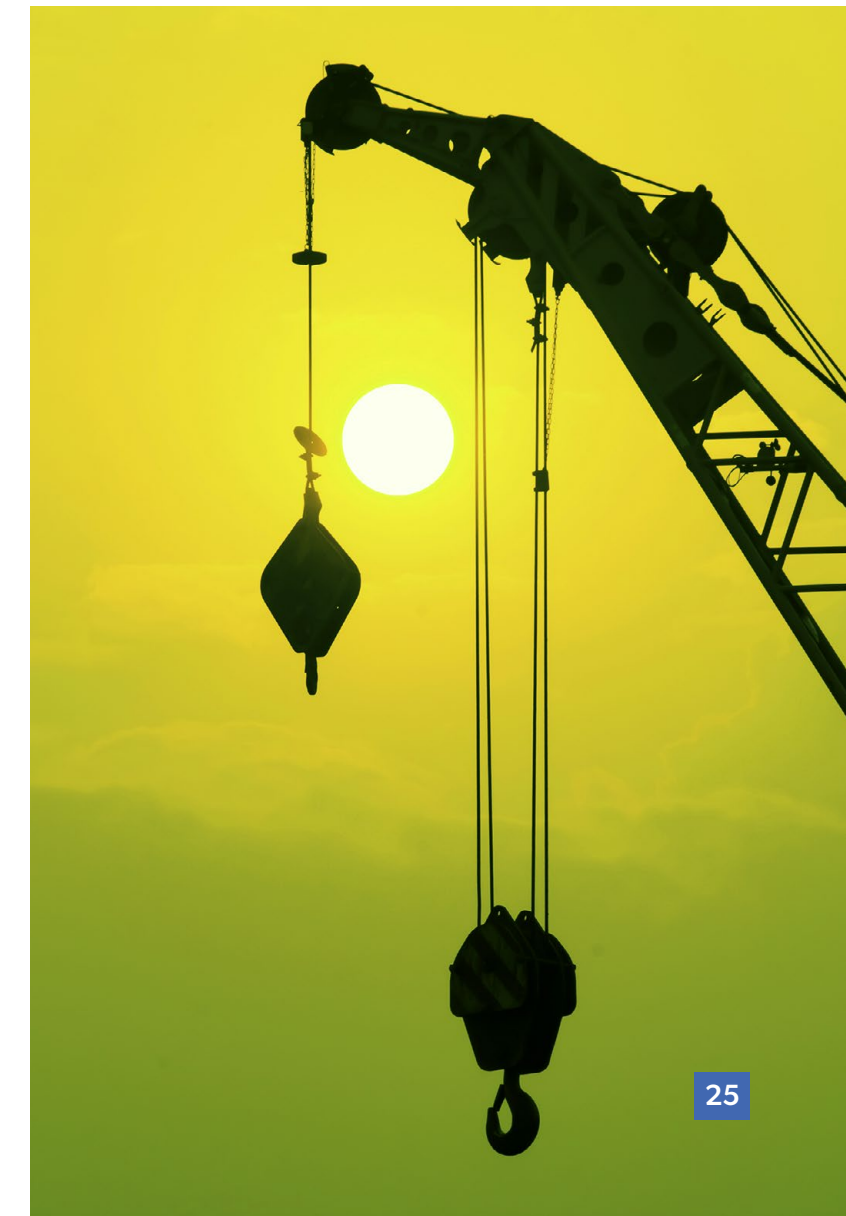
On December 6, 2023, CVSE announced significant changes to the weights and dimensions policy, specifically Chapter 5, pertaining to All-Terrain Cranes (ATCs). The announcement was made during the National Task Force on Weights & Dimensions Policy meeting held in Montreal.

Additional changes were announced in January 2024 and are summarized as follows:

- Description of ATC revised to reference steering and suspensions systems to better distinguish from mobile cranes and other boom trucks
- Load equalization within 1,000 kg between adjacent axles removed
- Max overall length revised from 25 m to 31 m
 - Pilot car exemptions are not provided with revision to overall length
 - ATC and boom dolly configuration may be 31 m long but would need to be 2.6 m wide to operate without a pilot car on 2-lane highways
 - ATC and boom dolly configuration 27.5 m long may be up to 3.2 m wide for operations without a pilot car on 2-lane highways so 27.5 m overall length may be more of a practical limit for ATCs
- Max interaxle spacing between adjacent axles revised from 3.0 m to 4.2 m
- Max ATC truck chassis length revised from 14/15 m to 16.5 m
- Max 12,000 kg per single axle removed
 - Requirement was based on 600 mm wide tires which was/is not used by industry
 - Single axle max is 11,000 kg which requires min 520 mm wide single tires, typically 525 single tires.

The revisions to the policy reflect the commitment of all parties involved to improve safety and efficiency in the industry, including the Canadian Crane Rental Association (CCRA), BC Crane Safety and many others. As Claire Belanger-Parker from CCRA states:

The recent announcements of changes to Weights & Dimensions Regulations for All-Terrain Cranes (ATC) in British Columbia demonstrates the power of association. One member alone could not initiate the province-wide changes; but together, we could.



PART 5 – LOOKING AHEAD

Regulatory Consultation

Tower Crane Community of Practice Working Group

In 2021, BC Crane Safety reconvened an industry-led Tower Crane Community of Practice Working Group. One of the group’s goals was, and still is, to collaborate on effective strategies to address recommendations following the fatal tower crane incident in Kelowna earlier that year.

That incident is still under investigation and the Working Group is evolving and expanding to include more stakeholder voices and perspectives.

By the end of 2023, WorkSafeBC completed a consultation process to amend OHSR Part 14 to require a Notice of Project (NOP) for the assembly, repositioning, and disassembly of tower cranes. The NOP would have to state the name and qualifications of the supervisor of the crew(s) doing that work and/or provide a way to verify their qualifications via a registry. That regulatory requirement is scheduled to go into effect October 1, 2024.

As this report was being prepared in early 2024, the crane community had recently suffered several tower crane incidents in BC’s Lower Mainland. One of them was fatal. This has led to an increased sense of urgency regarding the clarity needed for the regulatory amendment’s successful implementation.

BC Crane Safety will work with industry stakeholders throughout 2024 to develop a regulatory Guideline to accompany the new regulation. The Guideline will include establishing the criteria for the qualification of assembly/disassembly supervisors and will help to ensure the regulation’s application is consistent. BC Crane Safety’s SkillRecord Passport application will house the registry.

For more information on the progress of this initiative, please contact BC Crane Safety at info@bccranesafety

Certification

Certification Renewal

BC Crane Safety will continue to move forward to establish the criteria for Certification Renewal and continue pilot testing the use of the SkillRecord Passport to document operators’ achievement of the requirements.

Core Competencies Review

Core Competencies represent the knowledge, skills and aptitudes that are assessed throughout the certification process. These are the competencies common to all crane types and are therefore foundational to all aspects of the certification program.

In 2024, BC Crane Safety’s Assessment Review Panel will work with WorkSafeBC, industry and labour representatives, SkilledTradesBC, Fulford Certification and other stakeholders to review and update the Core Competencies for crane operator certification.

Health and Safety

Toolbox Talks

More Toolbox Talks guides are on the way! Our goal is ultimately to publish an additional 200 talks on crane-specific topics so that there is one for every day of the year.

Mental Health and Wellness

BC Crane Safety is working on resources to support the health and wellbeing of all members of the crane community. These resources will be available in several formats – online and in print – to help everyone on the worksite achieve a healthy balance between life and work and optimize their physical and psychological health.

Supporting the Evolving Industry

Recruitment and Retention through DEI

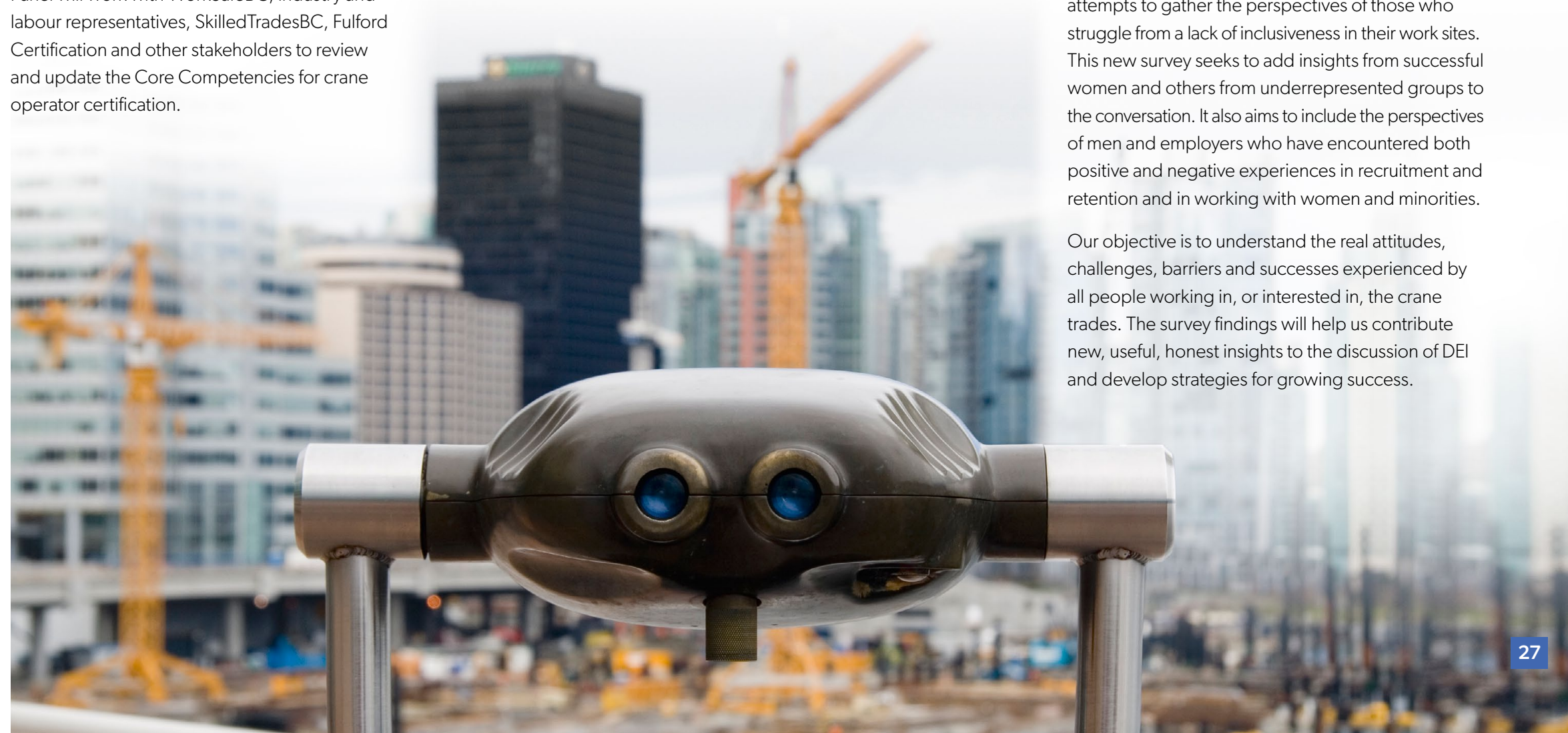
A Stronger Future for Crane Operations: Gathering a Balanced Perspective

We know that inclusive, diverse workplaces provide increased career satisfaction. Employers improve the retention and recruitment of workers when they are respected and valued in the workplace.

Stay tuned in 2024 for an upcoming survey from BC Crane Safety to examine how people working in crane-related jobs view the topic of Diversity, Equity and Inclusion (DEI). The aim of the survey is to afford individuals from various backgrounds the maximum opportunity to express themselves fully and authentically.

This nuanced approach is a departure from many attempts to gather the perspectives of those who struggle from a lack of inclusiveness in their work sites. This new survey seeks to add insights from successful women and others from underrepresented groups to the conversation. It also aims to include the perspectives of men and employers who have encountered both positive and negative experiences in recruitment and retention and in working with women and minorities.

Our objective is to understand the real attitudes, challenges, barriers and successes experienced by all people working in, or interested in, the crane trades. The survey findings will help us contribute new, useful, honest insights to the discussion of DEI and develop strategies for growing success.



PART 6 – OUR COLLABORATORS

Partnerships in the Yukon

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 sincerely 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 for the contributions of some of our key collaborators including:

- WorkSafeBC
- Yukon Workers' Safety and Compensation Board
- Fulford Certification
- SkilledTradesBC (formerly the Industry Training Authority)
- Employment and Social Development Canada
- International Union of Operating Engineers (IUOE)

- Engineers and Geoscientists BC (EGBC)
- Technical Safety BC
- BC Ministry of Jobs, Economic Development and Innovation
- City of Vancouver
- Metro Vancouver
- Standards Council of Canada (SCC)
- Canadian Standards Association (CSA)
- Canadian Crane Rental Association (CCRA)
- Canadian Hoisting and Rigging Safety Council (CHRSC)
- US Occupational Health and Safety Administration (OSHA)
- Crane Industry Council of Australia (CICA)
- European Crane Operators Licence (ECOL)
- European Association for Abnormal Transport and Mobile Cranes (ESTA)



Workers' Safety and Compensation Board Yukon

The Yukon offers many opportunities to start a highly rewarding career as a crane operator. Workplaces in the territory are thriving, including mining, residential and commercial construction, road-building and other major infrastructure projects. The demand for trained certified crane operators continues.

The Yukon Workers' Safety and Compensation Board (WSCB) is focused on setting new operators up for success and collaborates with BC Crane Safety to produce training supports. Yukon crane operators are certified under the same system as BC crane operators. This mutual agreement automatically provides Yukon crane operators with the same national and international mobility as BC crane operators.

The Yukon-BC relationship has been going strong since the beginning. WSCB has played an indispensable role in the development of certification standards and the certification model itself. In fact, the first competency assessments delivered under

the certification program were conducted in the Yukon in 2008. WSCB holds a non-voting position on the BC Crane Safety Board of Directors.

BC Crane Safety has an administrative oversight role, maintaining certification standards and supports such as the registration system and online logbooks. Theoretical and practical training is provided through Yukon University and competency assessments are delivered by BC-based Fulford Certification.

This co-operative agreement means crane operators and employers in both BC and Yukon have access to a streamlined career path, along with the necessary support, information, resources and training they need to succeed.

WSCB and BC Crane Safety share the goal of ensuring crane operations safety, enhancing operator mobility, and improving overall industry efficiency.



PART 7 – THE BC CRANE SAFETY JOURNEY

01 Certification Journey Begins

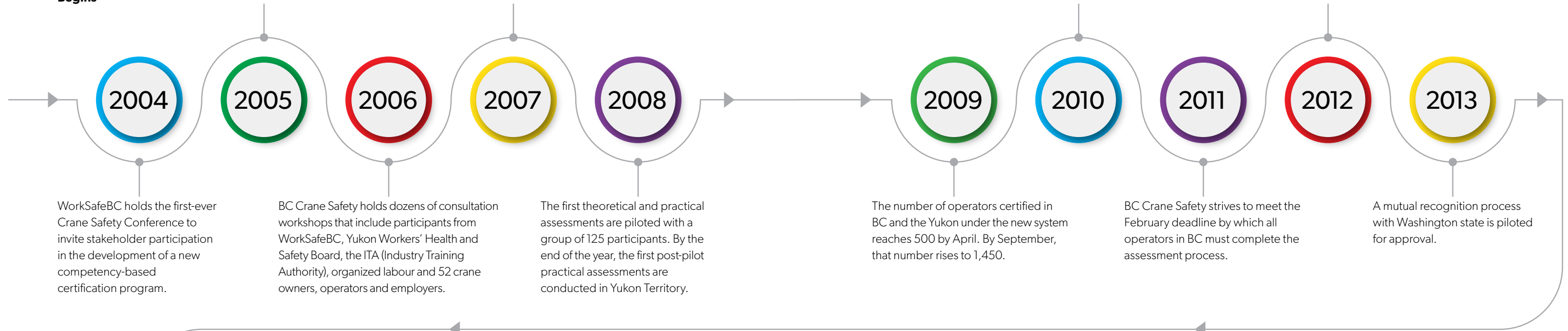
BC Crane Safety is incorporated as the certifying body for BC crane operators for various crane types throughout the province and across industries.

BC's OHS (Occupational Health and Safety) Regulation requiring certification goes into effect. More than double the original estimate were received and processed (10,000 in total).

02 Certification Underway

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

More than 10,000 crane operators are certified by August. BC and Alberta agree to mutually recognize operator certifications. The Canadian Hoisting and Rigging Safety Council (CHRSC) begins work on a framework for a national certification standard.



03 Certification Program Recognition

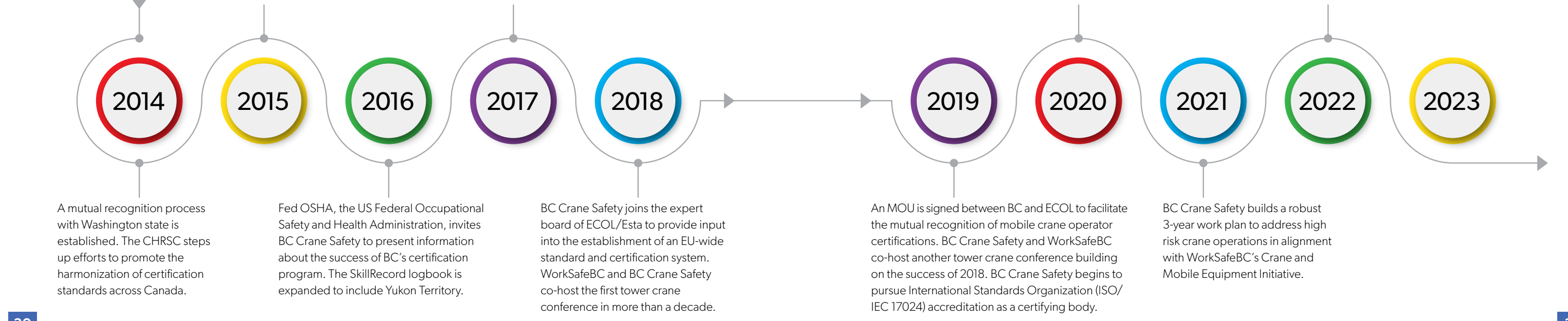
A Memorandum of Understanding (MOU) is signed with Ireland, expressing the intentions of Ireland and BC to mutually recognize mobile and tower crane operator credentials. A Mutual Recognition Agreement (MRA) is signed recognizing US certifying bodies.

BC Crane Safety enters into an agreement with the Government of Canada to pursue an MRA with the European Union under the Canada-European Union Comprehensive Economic and Trade Agreement (CETA).

04 Certification Excellence

BC Crane Safety has 11,877 active certified crane operators on record. A new Executive Director starts in August. Work to develop new standards for rigging and telehandler operations is stepped up.

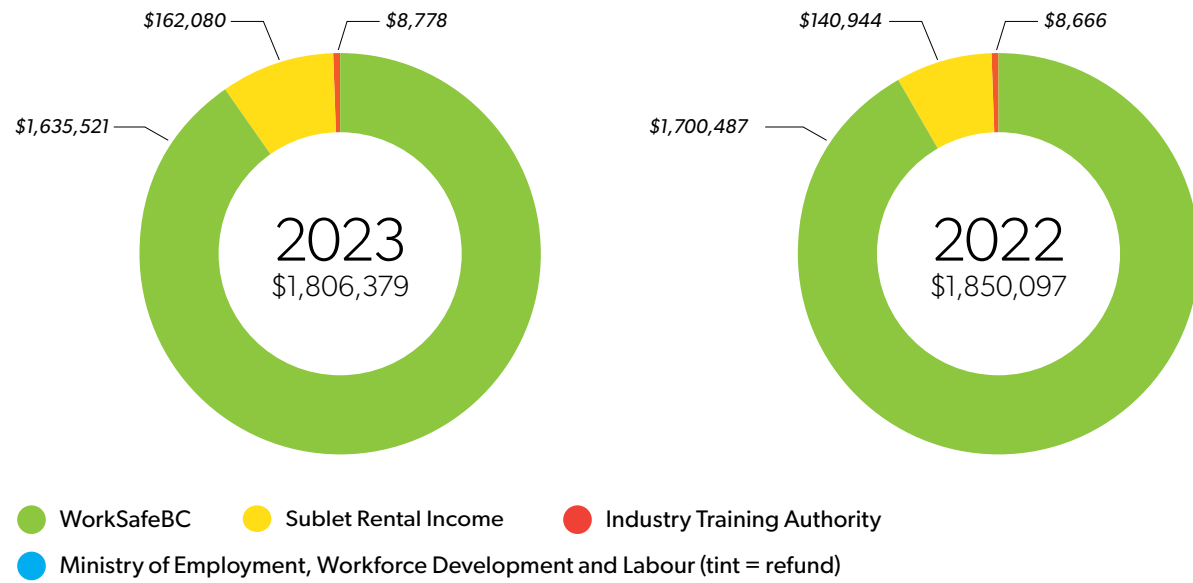
BC Crane Safety expands its health and safety website resources with materials like Slips, Trips and Falls, Pre-Assembly/Dismantling Requirements for Tower/Self-erect Crane and Plan-for-10 Pilot Module in SkillRecord Passport.



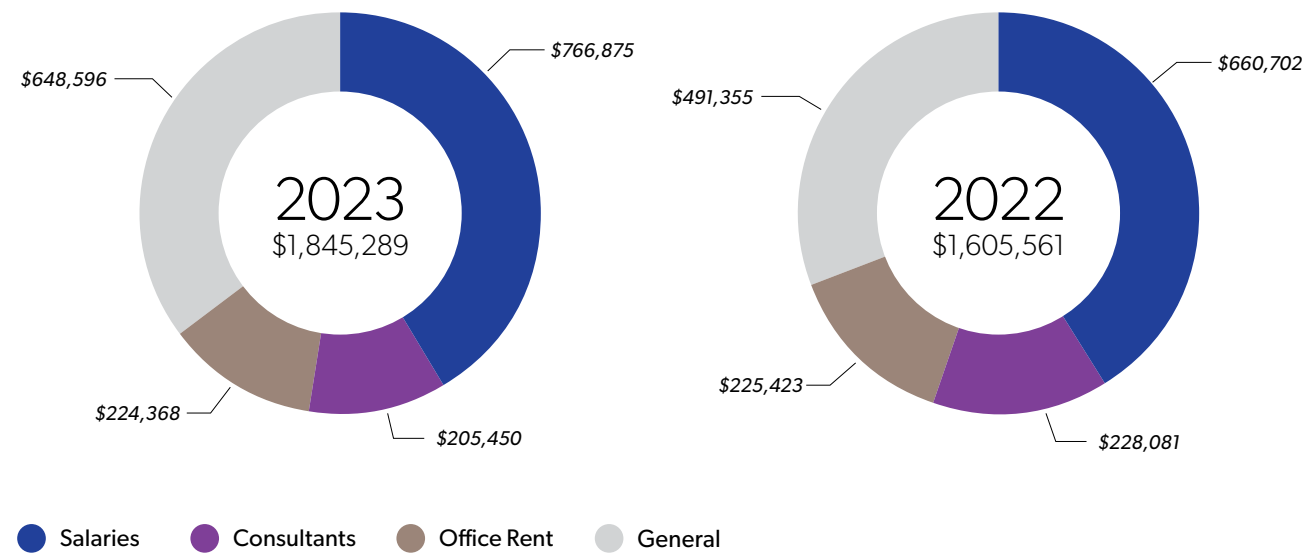
PART 8 – FINANCIAL STATEMENTS

BC Association for Crane Safety, 2023 Fiscal Year in Review

Funding — Operations



Expenditures — Operations



Audited financial statements can be viewed at: www.bccranesafety.ca/about/year-end-reports





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