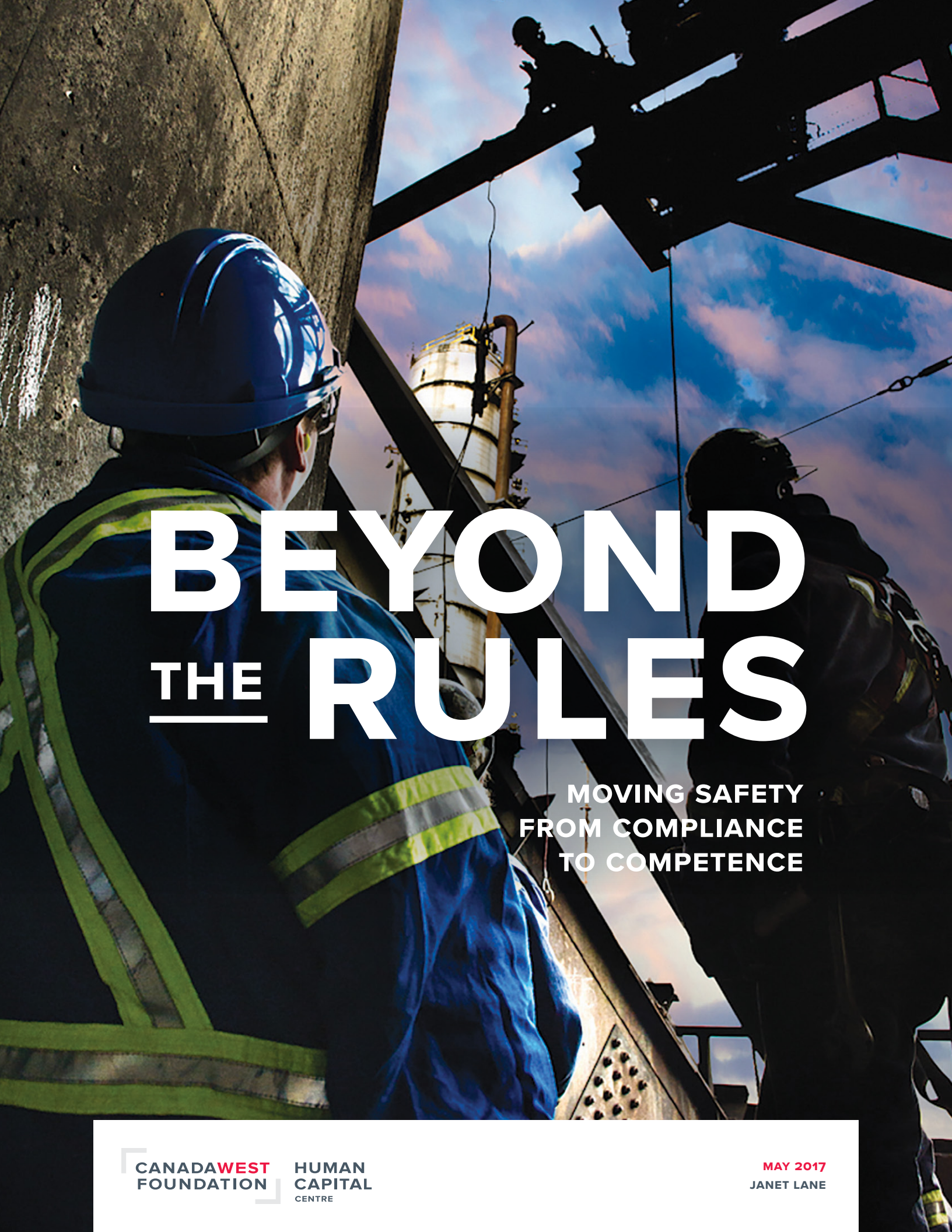

BEYOND THE RULES

MOVING SAFETY FROM COMPLIANCE TO COMPETENCE

CANADAWEST FOUNDATION
HUMAN CAPITAL CENTRE

MAY 2017

JANET LANE

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The Canada West Foundation focuses on the policies that shape the West, and by extension, Canada. Through our evidence-based research and commentary, we provide practical solutions to tough public policy challenges facing the West, and Canada as a whole, at home and on the global stage.

This report was prepared by Janet Lane, Director of the Human Capital Centre at Canada West Foundation. The work was informed by the consultation (with Waiward Steel) by Jeff Griffiths, of Griffiths Sheppard Consulting Group (jeff@griffiths-sheppard.com). It also benefitted from his expertise about competencies and organizational development. The author wishes to thank him and others who gave their time and support to this project, including the leadership and employees of Waiward Steel LP, the Ironworkers Local 720 and 725, and staff at Canadian Natural Resources Limited. Thank you too, to the external reviewers who helped to strengthen the report. The preparation of reports at Canada West Foundation is a team effort. Sincere thanks to all the staff for their research, editing and organizational prowess, and other contributions which enriched the quality of the report and brought the text to life on the page.

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Cover photo: Waiward Steel LP

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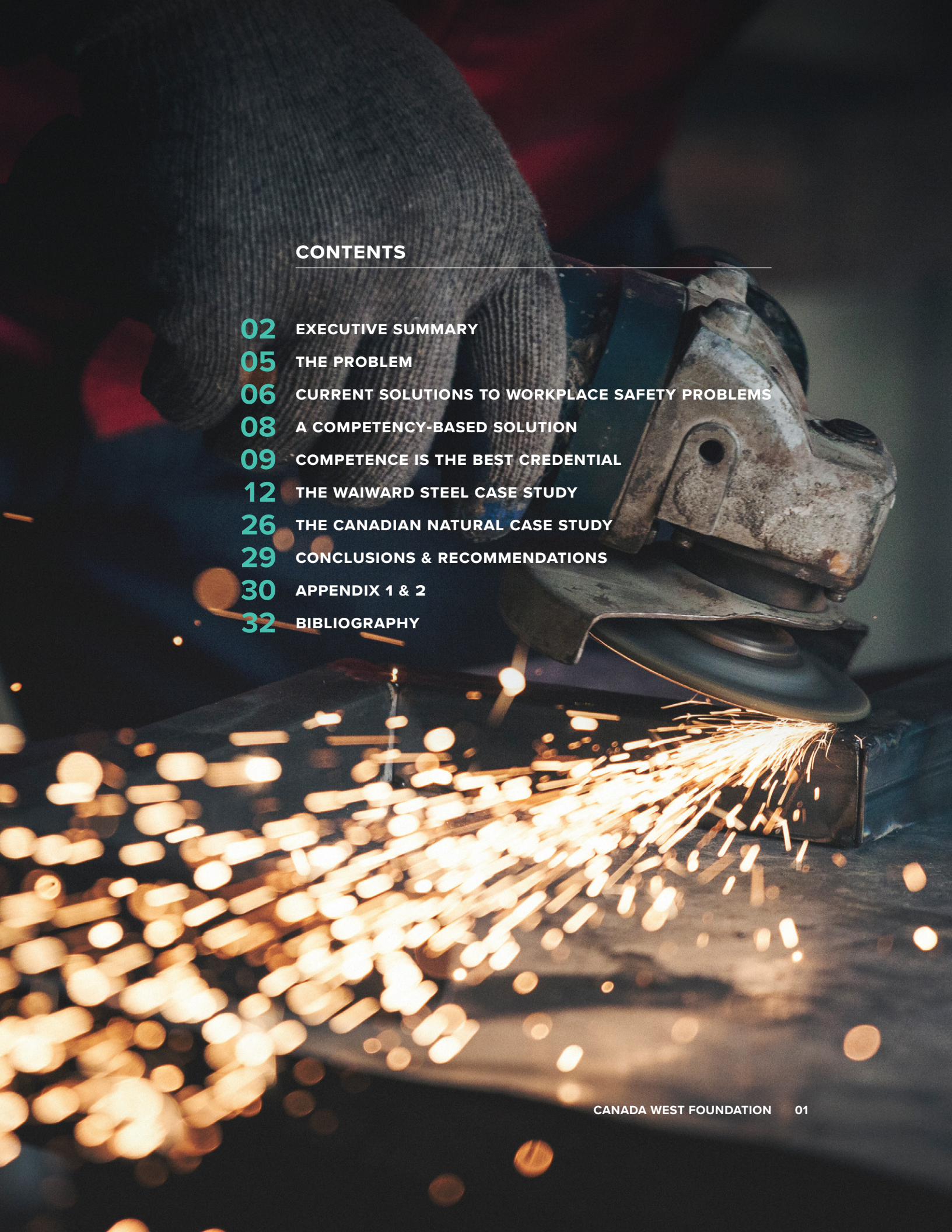


CONTENTS

EXECUTIVE SUMMARY

Despite binders full of rules and regulations aimed at making working in this country safer, Canada still has a workplace safety problem. Clearly, it is impossible to legislate every possible safety issue, or to constantly monitor every workplace for infractions.

There is a better way. First, follow all the rules, and then, go beyond them. Two case studies show that ensuring workers are competent to do the work they are assigned is the better way.

Since it implemented a competency program in 2013, Waiward Steel LP achieved a dramatic improvement in its safety record – more than 800 per cent decrease in the number of lost time claims over its historical averages. It is now at 4.6 million hours free of lost time claims. All this, without harming its relationship with its union or the profitability of its business.

Meanwhile, Canadian Natural Resources Limited has all but eliminated leaks and fires at its upgrading facility through a new program that involves ensuring its workers are more competent. This is a huge win for safety.

Waiward Steel is an Edmonton-based steel fabrication company. In response to four serious safety incidents between 2010 and 2012, the firm worked with its union to design and implement a competency program to develop and deploy its workforce. First, the relevant competencies for each task associated with a given job were identified. It also established standards and objective assessment criteria so that workers' competencies can be assessed by their supervisors through observation. Today, any observed gaps in competence are filled, primarily through on-the-job training. The factors in the firm's progress are: Commitment, consistent leadership, co-ordination, champions, coaching, communication, and continuous learning.

The program is fully operational today, including a database and software to help manage the competencies of the workforce. The system is rapidly becoming Waiward's operations management system. Because the firm has improved its processes and procedures, and it sees the potential benefit to the sector and the construction supply chain, it is now offering the system to other firms and unions. Some have already taken Waiward up on the offer.

The second case study documents a change implemented at Canadian Natural. Through its Bolted Joint Integrity Management program, the firm has replaced more than 40,000 flanges at its upgrading facility. All of the start ups following scheduled maintenance shut downs since the program was implemented have resulted in zero leaks or fires. The program involves new techniques and tools, and a training program designed to ensure workers are competent in the tasks of their jobs.

THERE IS A BETTER WAY. FIRST, FOLLOW ALL THE RULES, AND THEN, GO BEYOND THEM.

TO MAKE CANADA'S WORKPLACES SAFER WE RECOMMEND THAT:

- Canada build and implement a system of competency frameworks for all jobs, including standards for competence and criteria for assessing competence in the tasks and subtasks of those jobs. Employers should contribute their knowledge about the tasks and subtasks of the jobs on their worksites to the development of a pan-Canadian competency framework for their sector.
- Employers adopt a competency approach to workforce development and deployment – including assessing workers for competence by observing their work on-the-job – and then fill training gaps as quickly as possible.
- Where applicable, unions work with employers to implement workplace competency programs.
- Individuals request training when they feel less than fully competent.

The examples in this paper show that concerted efforts to implement a competency approach by employers can drastically improve safety records, provide benefits to employees and society – and give a boost to companies' bottom lines.

This paper follows on our previous report, Matchup: A case for pan-Canadian competency frameworks, recommending policies to support pan-Canadian competency frameworks. This paper shows what a competency approach can achieve – and that implementation is possible.

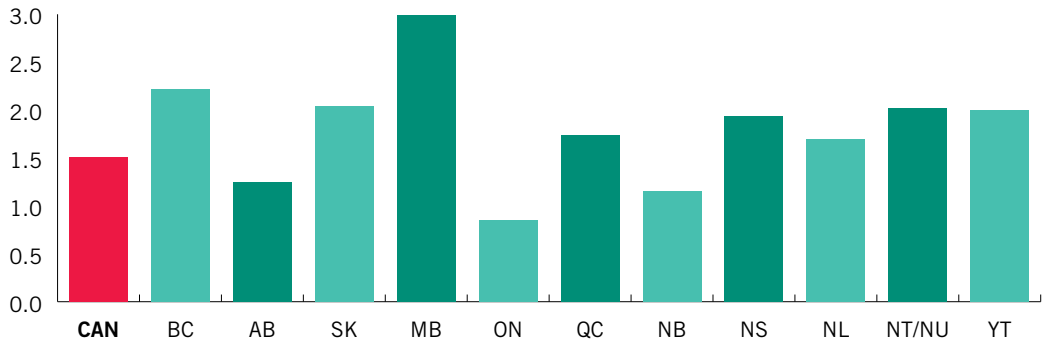
Photo: Waiward Steel LP

THE PROBLEM

Canada has a workplace safety problem. In 2015, 307 workers died from injuries on-the-job. Another 545 people died from work-related diseases.[1] That same year, 232,629 people filed lost time claims through their provincial or territorial Workers' Compensation Board (WCB) program.[2] That's one-and-a-half claims for every 100 workers covered by WCB. Not surprising, the frequency of injury varies by province given the different sectors they represent.[3] But workplace safety is a priority for all.

Safety on-the-job constitutes more than protection from hazards and injuries. Working safely is about doing the right things, in the right way, at the right time. To assist people to work safely, and to ensure that the work produced is safe for society, rules and regulations have been put in place over time.

FIGURE 1: INJURY FREQUENCY, NATIONALLY AND BY PROVINCE (per 100 workers of assessable employers)



Source: Association of Workers' Compensation Boards of Canada

[1] Association of Workers' Compensation Boards of Canada, National Work Injury/Disease Statistics Program, *Number of Fatalities, by Nature and Jurisdiction 2013* – 2015, accessed April 24, 2017, http://awcbc.org/wp-content/uploads/2017/02/Fatalities-by-Nature-and-Jurisdiction-2013-2015.pdf

[2] ibid

[3] While Manitoba has the highest rate of claims, its average cost per claim is less than half of that of most provinces.

CURRENT SOLUTIONS

to workplace safety problems

Rules and regulations abound.

Canada's Labour Code is 271 pages long. It stipulates the rules and regulations for workplace conditions under federal jurisdiction, including those for workplace safety (transportation sectors have their own federal rules).[4] Some provincially based industries, such as uranium mining and grain elevator operations in Saskatchewan, are under federal employment rules. Each province and territory also has its own health and safety act.

While each jurisdiction has its own legislation, basic safety rules are much the same across the country. Provincial occupational health and safety codes differ because they reflect the types of industries operating in their jurisdiction and the types of safety incidents previously experienced. Regulations are usually updated in response to new safety incidents.

Each jurisdiction has its own version of a Workers' Compensation Board (WCB). These bodies are an insurance program designed to provide income and medical coverage to workers who lose wages due to workplace injuries and job-related illnesses. The insurance plans are paid for by employers with premiums based on their record of safety and the hours of work covered. A no-fault plan provides coverage but removes the option for the employee to sue an employer if they are injured on-the-job or suffer a work-related disease. Some jurisdictions reserve the right to refuse to pay compensation for injuries due to willful misconduct on-the-job.

Most jurisdictions also have some version of a Safe Work organization that provides workplace health and safety inspections, training and information. Some provinces, such as Manitoba, have either already combined their Safe Work organization and their WCB, or are moving toward doing so.

Work Safe Alberta, for example, works in consultation with industry and labour to prevent work-related injuries, illnesses and deaths. It provides e-learning programs, public awareness campaigns, specific programming for young workers, and information on working in extreme temperatures.[5]

There is usually a form of provincial Certificate of Recognition (COR) for employers who develop health and safety programs that meet established standards. The evaluations are done by certified safety auditors (who may work for industry associations that have been tasked with this role), who ensure the employer complies with Occupational Health and Safety (OHS) regulations through an internal health and safety management system.

The big industrial sectors in each jurisdiction are also usually covered by specific workplace safety rules and regulations, while also offering safety programs for firms in their sector. B.C. has its *Health Safety and Reclamation Code for Mines in BC Act*, and awards for mines with good safety records.

[4] Canada Labour Code, R.S.C. 1982, c. L-2. Last modified April 12, 2017, http://laws-lois.justice.gc.ca/PDF/L-2.pdf.

[5] Alberta Labour, "Occupational Health & Safety eLearning programs." Last modified February 1, 2017, https://work.alberta.ca/occupational-health-safety/elearning-programs.html.

There are also some industry-specific, non-governmental workplace health and safety programs which aim to prevent workplace injuries and fatalities. For example, the Saskatchewan Construction Safety Association provides safety training and advice to employers and employees throughout the province. The association also provides Certificates of Recognition. In Manitoba, an organization called Made Safe provides health and safety services designed specifically for the needs of the manufacturing work environment. In Alberta, the Oil Sands Safety Association sets a Safety Training Standard that establishes acceptable training content requirements for worker safety training.

Individuals working in industrial sectors are required to prove they hold certificates for training specific to the hazards of the jobs they are doing. For many of these safety certificates, training must be updated every few years. The certificates are used as proof that a worker is qualified to perform their tasks following safe work procedures and protocols.

Workplace OHS programs include components such as: accident investigation; emergency response; ergonomics; hazard identification and risk assessment; health and safety committees; health and wellness; lock out/tag out procedures (for materials and equipment not in current use); violence prevention; and, workplace inspections.[6]

Despite the prevalence of safety programs, and federal, provincial and territorial rules and regulations to cover foreseeable safety situations, it is apparent, given the statistics, that Canada's workforce is not as safe on-the-job as it should be.

This paper documents the case study of how one medium-sized steel fabrication company drastically improved its safety record through assessing competence, by observation rather than relying on credentials and safety certificates.

[6] Canadian Centre for Occupational Health and Safety ("CCHOS"). "Programs". Last modified on October 6, 2016. https://www.ccohs.ca/topics/programs/.

A competency-based SOLUTION

The rules, regulations, inspections, training programs and safety certificates are important and should be retained. However, there is a way to enhance worker safety on-the-job by going beyond compliance with the rules. A competency-based approach assesses a worker's capacity to work safely and productively on-the-job.

Whenever there is a safety incident, the resulting inquiry inevitably asks, "Was the person competent to do the job?" The answer is usually, "Yes." This is because, on paper, everyone on-the-job is qualified, meaning they have certificates saying they are qualified to do the tasks they are assigned. However, qualifications do not always indicate competence. A certified journeyperson may never have performed a specific task associated with their trade, or performed it under hazardous conditions – at height, in extreme cold, or with new equipment, for example.

Workers may be qualified on paper to do the tasks they are assigned, but it is only through observing them on-the-job that supervisors can ever be sure. Employers know that on-the-job observation happens informally by foremen and other supervisors every day. However, the assessment is rarely formalized, or, more importantly, performed using objective criteria. While these informal assessments by supervisors may prevent some safety issues, it appears that too many people are still assigned to tasks for which they are not fully competent and being put at risk on-the-job.

The two case studies documented in this paper show how firms can dramatically improve safety results by ensuring that their employees are competent to do the tasks they are assigned. In the case of Waiward Steel, a formal program of observed competency assessments using objective criteria has improved safety, quality, and productivity.

Competence is the

BEST CREDENTIAL

Competencies are things people can actually do, "things" that an individual must demonstrate to be effective in a job, role, function, task, or duty. These "things" include job-relevant behavior (what a person says or does that results in good or poor performance), motivation (how a person feels about a task, job, organization, or geographic location), and technical knowledge/skills (what a person knows/demonstrates regarding facts, technologies, a profession, procedures, a job, an organization, etc.) …. Competencies help to describe "how" work gets accomplished (by engaging knowledge, skills, and abilities).[7]

> *"Competent employees can do their job well. They have the full set of competencies – the skills, knowledge and attributes to perform all the tasks required by the job. Competencies are increasingly becoming recognized as what matters most to employers, more than the formal credentials a prospective employee has earned. Canadian employers have counted on credentials, in large part, because they are all that have been available. Credentials show that the holder has spent time in a program and may have achieved a level of knowledge, but do not guarantee that related job skills have been developed. Post-secondary programs are not always designed to ensure that specific job skills are incorporated into the curriculum. Depending on the program, there can be gaps between the competencies a job requires and the formal training programs that are expected to develop them."*[8]

Competency-based development and deployment is becoming the norm around the world. To make the approach work, there must be a clear understanding of the competencies of the task and the subtasks of the various jobs in the workplace, agreed upon standards for competence, and criteria by which to judge if a person is competent to perform the tasks of the job.

Fortunately, as we have shown in previous work, the rest of the world is further along this path than Canada is, and many of these profiles and criteria are available for Canada to use as a base from which to build its own.[9]

This is best achieved through the development of a competency framework, which can be envisioned as a three-dimensional network, showing occupations, competencies, and levels of competency across its three axes. Such a framework also allows people to see where they are in terms of the competencies they have already developed, and which competencies they need to develop, to which level, if they wish to move into a different occupation. See *Match Up: A Case for pan-Canadian competency frameworks*, for more on this topic.[10]

7 *Competency Dictionary*, Harvard University, accessed April 24, 2017, www.campusservices.harvard.edu/system/files/documents/1865/harvard_competency_dictionary_complete.pdf.

8 Lane, J. and Christensen, N. *Competence is the Best Credential*. Canada West Foundation, April 2015

9 ibid.

10 Lane, J and Griffiths, J. *Matchup: A Case for pan-Canadian competency frameworks*. Canada West Foundation, February 2017

Canada does not yet have a comprehensive system of competency frameworks. However, they can be built by linking together the individual components, which consist of the profiles of the competencies required to perform in the relevant occupations. Some profiles already exist, and as discussed later in this report, others are being built by employers who wish to move to this approach. What we do not yet have in Canada, and need to develop quickly, are the protocols for developing more, and more consistent, profiles, and for linking profiles together in a pan-Canadian framework.[11]

A competent workforce is a safer workforce. If the job is properly designed, then doing it right means doing it safely. Knowing that employees have the knowledge, skills and motivation to do the job right through competency assessment and providing training for those who need it, means that employers can be sure their workers are safe on-the-job.

Competent workers are also abler to produce quality work in a timely fashion. This is how a competency approach to safety pays for itself. Employers are discovering the power of competence in their workforce.

The Waiward Steel case study in the next section, details one firm's move beyond compliance with the safety rules to having a truly competent and safe workforce.

[11] ibid

Photo: Waiward Steel LP

THE WAIWARD STEEL

Case Study

Being an ironworker is not for the faint-hearted. There are risks involved in working with massive beams of steel. To reduce risks, Waiward has a workplace safety program that meets all the rules and regulations, and an Alberta government Certificate of Recognition to prove it. That said, Alberta's Occupational Health and Safety (OHS) records show that between 2010 and 2013, Waiward Steel LP (Waiward), averaged 18 disabling injuries and 3.7 lost time claims per year. Between 2010 and 2012, Waiward experienced four serious, life-changing safety-related incidents.

Waiward's main source of revenue has been from big contracts in the oilsands region, as steel is the most used construction material in these projects. Workforce numbers in the industrial construction sector vary constantly because workers are laid off between contracts. Before the downturn in oil prices, Waiward's total workforce typically numbered between 1,000 to 1,200 people.

The company was busy during the boom. At times, it employed more than 600 ironworkers in the oilsands sites, the majority of them journeymen Red Seal ironworkers. Shifts worked 24/7/365. Typically, in the field, crews of eight ironworkers are supervised by a foreman, who reports to the general foreman, who answers to the site superintendent. Some detail about the ironworking trade is included in Appendix 1 (page 30).

Waiward also does customized steel fabrication in its Edmonton shop. It prepares larger pieces for shipping to sites in the oilsands. It also builds customized structures for other contractors. It is not unusual for the structures to be massive, and to require overhead cranes to move them onto large trucks when they are ready to be transported to their destination. Up to 300 ironworkers and welders can be employed in the shop. This work is technical and demanding, but in the shop, the danger of working at height is reduced. Most of Waiward's shop employees have generally been with the company for years.

Like many employers in the industrial construction sector, Waiward employs unionized workers in its shop and in the field. The workforce in the field is highly mobile, moving from one job to another through dispatch by the union. While some people are employed by the company for years, others may be laid off by Waiward and hired by another firm as work volumes fluctuate from site to site and back again.

WAIWARD'S MOVE TO COMPETENCIES

In 2012, when Waiward decided to implement a competency approach to developing and deploying its workforce, Alberta was experiencing an oil boom. The construction sector, particularly industrial construction, was stretched to capacity. Construction costs were also stretching to new levels. The price of oil was high (within reach of $100 per barrel between 2011 and mid-2014) and the promise of high revenues in the future fueled the demand for oilsands mega-project construction to be completed

as quickly as possible. There were profits to be made when construction moved to production – even at high cost levels. This drive to completion increased demand for technical and trades workers.

To fill the trades and technical jobs, employers recruited across Canada and in the U.S., Europe and beyond. During this period, Waiward recruited a few ironworkers from the U.S. While they were qualified journeypersons, they had little experience working in cold temperatures and, in some cases, no experience working "at height." This contributed to some of Waiward's safety issues.

Whenever someone was hurt on its worksites, Waiward looked internally for responsibility. After a series of serious incidents, the leadership team vowed that never again would they be responsible for someone almost losing a life on-the-job. They decided to change their culture, to go beyond safety compliance. They decided to adopt a culture of competence in the tasks of the job for every single employee, including the CEO of the firm.

In 2015, Waiward became a founding member of GO Productivity's Project Alignment and Delivery Project (PAAD). GO Productivity is an Alberta-based, nationally active, non-profit organization that works with small- and medium-sized companies to help them increase their productivity.

Because the steel fabrication industry is so specialized, the practice at Waiward has been to hire office and management staff for general education, talent and aptitude, and then to train them in specific steel fabrication business skills. The company has a track record of recognizing people's skills and putting them to good use. People who are not a fit at Waiward tend not to last long, while people who are, often stay for many years and move up quickly. It seems natural that a firm with this culture is one of the first to move to a competency approach for all its workforce.

GO PRODUCTIVITY'S PAAD PROJECT

It is acknowledged now, in the hindsight of the protracted decline in oil prices, that as Alberta's industrial construction skyrocketed during the latest oil boom, cost levels got out of hand, productivity levels dropped, safety suffered, and competitiveness declined. These negative consequences moved GO Productivity and its founding partners to implement the Project Alignment and Delivery (PAAD) Project in 2014. This industry collaboration is working to achieve internationally competitive performance by demonstrating and implementing best practices up and down the supply chain.

PAAD's vision is: "The Alberta energy Industry will be Twice as Safe, Twice as Productive and Internationally Competitive by 2020."

There are four working groups in PAAD – Risk Management, Collaboration, Competencies, and Scope/Front End Planning. Each group aims to develop best practices in its designated area.

Waiward Steel is the Industry Champion in the Competencies working group.

Photo: Waiward Steel LP

THE IRONWORKERS UNION

There are two large ironworkers' union locals in Alberta: 720 (Edmonton and the north) and 725 (Calgary and the south). These locals represent workers in the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers ("the International"), based in Washington, DC. The International, in all, represents approximately 120,000 members in Canada and the U.S. Waiward's field employees are members of Local 720. A smaller local, 805, represents the workers in the shop. There are three services provided by the union that are particularly important: training, dispatch, and health and welfare.[12]

Some issues with the dispatch process became apparent through discussions with union executives:

- No formal communication process about the work quality of its members from the employer, other than occasional letters of complaint about individual members, meant that the union was unaware of competency issues.
- If workers had the required certificates, the union had no recourse but to send them out to the next available job when the members had moved back to the top of the list, regardless of the union's own knowledge of its members' competencies.
- There was no means to ensure that a member took training other than that which is mandated for safety compliance purposes, even if training was made available when a need was identified.
- When journeymen signed the Blue Books of their apprentices, they had no objective evidence to determine how many hours the apprentice had worked on each of the required learning components. They also lacked direct evidence of the apprentice's competence for each component.
- Safety certificates were not always shown by workers at the time of dispatch. So, either the work was delayed until the certificate was produced, or follow up had to be done to ensure that they were produced in due course.

THE JOURNEY FROM COMPLIANCE TO COMPETENCE

In the Waiward experience, seven success factors were apparent. It also became apparent that these factors will determine the success of other firms and unions embarking upon a competency approach to workforce development and deployment. Conveniently, these factors all begin with the letter C: Commitment, consistent leadership, co-ordination, coaching, champions, communication, and continuous learning.

[12] All 21 Canadian Ironworkers' Locals are represented by IMPACT, a labour-management partnership geared to providing a mutually-beneficial relationship between ironworking employees and employers. This case study was funded by GO Productivity, through a grant from IMPACT.

Content: Waiward Steel LP

The following sections detail how Waiward progressed along its competency journey, based on these factors.

COMMITMENT

First and foremost, there was unwavering commitment from the top. There was a clear understanding of what needed to change and why.

Once they decided that never again would someone be almost killed on one of their job sites, the CEO and the COO moved quickly. They recognized that this change was going to have a major impact on the firm and all its employees.

Waiward's leadership team was unwavering in its commitment to the competency program from the moment of the decision. Time, energy and resources were committed to the program, despite revenue challenges. This is not to say that there was not vigorous debate about the program, especially the costs involved, among the leadership team and the firm's ownership, Hillcore Group. However, that debate only strengthened their support.

A consulting firm helped Waiward move toward a culture of safety. The first step involved a survey of all the employees about solutions to the problem of poor workplace safety. Then, following a visioning exercise using input from the surveys, the leadership team devised a new vision and values statement for the firm.

The executive team has remained committed throughout. There is no going back. And, they are extending their commitment, by sharing what Waiward learned with other firms in their sector and supply chain.

CONSISTENT LEADERSHIP

When someone is not fully on board, it becomes apparent. To be successful, leadership must be consistent across the board.

The change at Waiward was led by the CEO and the COO. The leadership team signed off on the vision and values statement committing them to be being at the heart of everything done in the future. The implementation of the competency program was the first manifestation of the new vision and values.

However, while the whole leadership team was supportive of the determination to eliminate lost-time safety incidents, some direct supervisors, including at the senior level, found it hard at first to make the extra work involved in the competency assessments a priority. Recognizing that it was the beginning of a major cultural shift in the firm, the executives were, for the most part, patient with leaders who needed more time to adjust. Consequently, it took more than four years for the company to move from implementation to full integration of the program.

Recent surveys of employees in the shop and the field have shown that even long-term employees of the company have adjusted to the change. Foremen are seeing the benefits of knowing the competencies of their workers up front, making it easier to assign tasks. One general foreman has done 50-plus assessments and looks forward to the day that workers arrive on-the-job with an assessment already done by their previous employer.

To show their shared commitment, everyone on the executive team signed the Competency Program Handbook given to all employees. Both the handbook itself and the signatories demonstrate consistency of vision and method across of levels of the organization.

CO-ORDINATION

After the decision to adopt a competence program, the task of co-ordinating Waiward's program was given to a human resources administrator. Having no handbook to work with, she started from scratch.

Someone must make sure the program is developed and implemented. To get the job done, this person needs to be knowledgeable, persistent and willing to do whatever it takes to get people on board. They must know intuitively when to push, when to pull and when to try a new way to achieve their goals.

Defining competencies

The first step was to define competency for the ironworkers. The competency administrator researched job descriptions (starting with the federal government's National Occupational Analyses) for ironworkers in both the fabrication shop and in the field, and interviewed foremen.[13] The resulting competency profiles listed all the tasks for each job. Over time, all the subtasks were incorporated, and the document grew to be more than 30 pages long. The early versions also included information about the program and definitions of terms used in the document. This length made them unwieldy – it took too long to assess workers using such a lengthy document.

The administrator worked with the supervisors to pare down the length of the forms and make them more user-friendly. The COO and head of Human Resources supported her by making it clear that the new procedure was not the "flavour of the month" and was here to stay. It was the new normal.

The current ironworker competency profile is 13 pages long.

[13] "Ironworker (Generalist)", *National Occupational Analysis Series,* Red Seal, Human Resources and Skills Development Canada, 2010.

Levels of competence

Listing what tasks an ironworker had to do was not enough. The profiles also needed a scale by which to rate differing levels of competence. The first iteration of the rating scale had six points including three levels of competence: C1 – *Excellent*, C2 – *Good*, C3 – *Acceptable* and three levels below competence: Ratings of *Needs Training (NT), Not Applicable (NA), and Not Suitable (NS).*

Not Suitable is appropriate to use when a worker is unable to do a task, even for a short time for physical or other reasons. In this trade, injuries, and eventually age, can render a worker unable to do a specific task while still able to perform other important tasks of the job. This rating is also used when a worker does not produce acceptable work, even after training or extra time is provided.

Not Applicable is used when people are not assessed on a task because it is not part of the job to which they are assigned.

Needs Training was, at first, a difficult rating for a foreman to give to a worker. Suggesting that a certified journeyperson needs to upgrade skills goes against union culture and human nature. Although the competency program is not about judging someone's worth but about ensuring that people are safe as they produce quality work, it took time to instil a safety purpose for this rating. The leadership team was adamant that an NT rating was not a sign of irredeemable incompetence, or a signal that the worker should be let go. Instead, it was an opportunity to invest in that worker, building skills and ultimately making his or her work better and safer. Now that there is a track record of training provided to workers, this rating is gaining acceptance by both assessors and those being assessed.

Today's rating scale has been revised on the competency side as well: *C3 – competent; C2 – very competent* (consistently performing the task at a high standard) or, if they are willing to teach others how to do the task, *C1 – mentor*. To see how Waiward's rating scale changed over time, see Appendix 2 (page 31).

The most important shift in the competency rating scale is making assessment more objective – Waiward's team is now working on building a complete set of criteria by which to objectively rate the competencies of a worker on each of the components of each of the subtasks, in the tasks of their job.

Competency assessment

The job of assessing workers' competence belongs to both the individuals themselves and their immediate supervisors. A worker is asked to do an initial self-assessment on the first day on-the-job. This introduces them to the concept of competency assessment. It also provides the immediate supervisor an understanding of how the workers rate themselves. Forty-five days after the start of employment, the supervisor does the first formal assessment. Assessments are updated every 250 days or so, and at the time a worker is laid-off.

Supervisor assessments are done by observing the worker in the process of the task, and then the observations and ratings on the various competencies are discussed with the worker. Both parties sign the completed assessment forms.

The competency assessments are becoming more accurate as supervisors become more familiar with their role in assessment and comfortable with the feedback sessions. The improved rating scales and, most importantly, the criteria for more objective assessment, are making the assessment process

easier. Waiward is planning to develop worker assessment training for its direct supervisors.

So far, all assessments have been done on paper, although eventually the forms may move to a digital platform accessed through a hand-held device. A database called MODOS was developed to store the results digitally. (See text box for more on MODOS.) All competency assessments are manually inputted into this system. This is time- and resource-expensive. Attempts to have these assessments inputted digitally into the system have met resistance because many worksites do not allow electronic devices, and some supervisors have limited experience with digital applications.

After an assessment has been completed and signed off by both the supervisor and the worker, a training plan is discussed and implemented. The intent is that any NT ratings are handled as soon as possible on-the-job. Sometimes, the training is handled back at the union hall, and if necessary through third-party certification. The preferred method is through mentoring on-the-job. The new rating scale allows for the recognition of mentors, which makes it easier to pair up people who need training in a task with people who can provide it right on-the-job.

Although mentoring is going forward at Waiward, there is no standardized process. The firm has a train the trainer program and certificate for people in the organization who do in-house classroom training. To standardize the mentoring process, the firm plans to develop a similar program for journeymen ironworkers who have been identified as mentors.

INNOVATION WITHIN INNOVATION

In yet another innovative move, the IT specialists at Waiward went a step further when they built MODOS, the database that houses the competency profiles, assessments and worker certificates.

They devised a coding system for every competence that was input into the database. Much like the ISBN – the International Standard Book Number – given to every published document, the "ISCN" gives a number to each unique competency in the system. This makes it easy to see which competencies people already have when they are moving into, or are required to do the tasks associated with different jobs. It will also make it easier to build new competency profiles as more occupations are added.

While the most visible focus has been on improving the competence of its trades workforce, there has been a parallel program to develop competency profiles for every occupation in the company. It is much more difficult to define competence for office staff as their tasks are not as distinct as in technical occupations. It is especially difficult to devise the objective criteria by which to observe and assess competence in office jobs. That said, Waiward now has competency profiles prepared for all the jobs in the company, all the way up to the CEO. Every employee is assessed annually, and their learning plans are created and then acted upon.

A huge co-ordination job that started off with a single person and basic definitions is now distributed across people with electronic tools and multiple stages of competency assessment.

COACHING

At the worksite – whether in the office, shop or field, there will always be people for whom learning and adapting to change is difficult. Assessing and being assessed through observed competency assessment is new to everyone. Coaching helps.

The competency administrator originally coached foremen to perform the assessments. Then, in late 2015, a general foreman who worked in the field became the field competency coach. This move provided the field foremen with a highly skilled person who understood the assessment process and who could help them gain assessment skills and comfort with the process. The competency coach was also there on site to provide encouragement, and sometimes incentive, to make sure that the assessments were done on a timely basis.

The final link in the coaching chain was bringing the OHS people into the tent. Traditional programs equate competence with having done the required training and earning the certificate. OHS officers are tasked with ensuring compliance with safety regulations. Waiward's competency program goes far beyond compliance. It took time, and a change in managers, to turn around the thinking of the OHS group at Waiward. However, overall management of Waiward's competency program has now been given to the OHS director. As part of this new aspect of their jobs, OHS field and shop staff work alongside the foremen, coaching them through the competency assessments.

The OHS leader understands the role of observed competence in safety, and in quality production too. He has recently been tasked with incorporating the firm's quality controls into his portfolio.

Coaching has helped to make the competency program understandable and more readily accepted by the people in the shop and the field.

CHAMPIONS

The first champion of the competency program was the CEO. The most vocal has always been the COO. These two have been instrumental in championing the program internally, and externally. The COO's public statements about the company's success with the program have begun to circulate back to the employees. An Edmonton Journal column provided public recognition of Waiward's success and quickly made its way through the ranks.[14] For some people it was the first time they had learned about how successful the program had become.

These two executive champions were quickly joined by the head of Human Resources and the competency administrator.

In the field, the competency coach is also a critical champion who has helped shift the thinking among supervisors and workers. Having one of their own as a champion of the program gives the field workers assurance that management understands their needs and that the program is not going away anytime soon.

Moving the management of the program to OHS also created a team of new champions who are active daily right at the workplace.

[14] Lamphier, Gary. "Devastating accidents prompts workplace revolution at Waiward Steel" *Edmonton Journal*, October 14, 2016, accessed April 24, 2017, http://edmontonjournal.com/business/energy/gary-lamphier-devastating-accidents-prompts-workplace-revolution-at-waiward-steel.

COMMUNICATION

Communication is an essential component of change management – and it is hard to get communication right.

Waiward has excellent processes and procedures in place for communicating regular operational items. However, a recent assessment by Griffiths Sheppard Consulting Group (GSCG) shows that communicating beyond that which is necessary to accomplish the tasks of the job – at all levels – is not widespread. And, our research shows that communication is one aspect of the competency program which Waiward did not manage well for a time.

The firm did not communicate well enough with employees, especially those in the field, about this program during roll out or about how successful it quickly became. This omission is in some ways understandable. It is hard to develop and put into effect a communications plan when you are changing, revising and learning your way forward.

That said, at first communication was excellent. Bringing in a consulting firm to redefine the firm's culture was instrumental in getting initial buy-in from the people involved. The staff survey about Waiward's values and the ways it should go about improving its safety record was good communication practice.

Another great move was the creation and use of the Competency Program Manual. The signature of every member of the executive team in the inside cover of the manual proved to the workforce that this program was fully endorsed by the leadership.

The effects of the communication limitations were reduced by the ethos of trust and good relationships in the office, and compliance with procedures is the norm in the shop and field. After this finding was conveyed to Waiward's leadership, efforts were made to improve communication about the program – particularly its success, which as we will show has been spectacular.

CONTINUOUS LEARNING

Training and development has always been a part of working at Waiward. Moving to competency-based workforce development and deployment is part of a larger learning culture that in turn is part of a culture of continuous improvement.

In the past, training was provided so that people had the skills required to do their jobs. Now that mentors are more easily identified, mentoring is increasing as a way of doing on-the-job training throughout the firm. With assessment, analysis and tracking of competencies of individuals, it is possible to look at developing competencies of each person within the firm for not only current jobs but future ones as well.

Griffiths Sheppard Consulting assessed Waiward's operations management, including its competency program in May 2016. The assessment showed how the competency program could help the firm to improve its processes. By the next assessment, in February 2017, it was clear that the firm was implementing the recommendations.

Workgroups are being developed based on the competencies of the people in the group. Workforce planning based on worker competencies is just beginning. None of this was possible before. As the company further incorporates competencies into its workforce planning, hiring and employee development, it will move from managing a competency program that helps people work more safely, to a system of continuous improvement in people and processes.

HOW THE COMPETENCY PROGRAM HELPS TO CREATE A CULTURE OF CONTINUOUS IMPROVEMENT

The last time a worker crushed his finger in an incident in the shop, a full Noncompliance Report was instigated. It was determined that proper use of the machine involved needed to be added to the competency profile, and that training was required for all users of that machine. The Competency Manual has been updated.

What's more, the firm could, with its new processes, determine that the internal and administrative cost of handling the incident was $1,080. The cost to the worker is of course, potentially incalculable. In the past, there would not have been much of a management response other than the filing of a report.

MODOS, the system created to manage the competency program, including training certificates workers require, has grown to include the company's operations management system. The data collected through MODOS is being used to improve the breadth and accuracy of the firm's key performance indicators.

MODOS's database is searchable. Now, when an incident happens, such as the recent dropping of a large piece of steel from height, the first thing the construction director does is ask MODOS for a report of all the competencies of the people on site at the time of the incident.

If any of the workers present at the time of an incident have NTs on their competency profiles, their activities can be identified and investigated. If there are no NTs involved, then further investigation regarding the cause of the incident can be ordered. If that investigation identifies a training gap, the competency profile for that task set can be updated, and training can be implemented. None of this was possible before the implementation of the competency program. The impact on the management and the operations of the firm is, at this point, not yet measured, but is generally believed to be substantial.

A team of graduate students at the University of Alberta has begun to investigate ways to quantify the return on investment of the program. They are looking outside the usual metrics. For example, since the implementation of the MODOS competency program, 75 per cent of all incidents requiring medical aid involved someone with an unresolved NT in the required competency on their most recent assessment. This has spurred management to close known training gaps more quickly.

It has taken time for management to understand that this program is making the comprehensive approach to the development and deployment of everyone in the company possible. As this understanding spreads beyond management, people are becoming even more supportive of the program and continuous learning is further enabled.

WHERE WAIWARD IS NOW

Waiward's move to observing and assessing competence rather than assuming it comes with training certificates has had huge benefits. Compliance with all the rules and regulations is still maintained, however safety has improved dramatically.

According to Alberta's Occupational Health and Safety figures, in 2012, Waiward had 28 disabling injuries and six lost time claims during 732,556 hours covered by WCB. That's an average of one lost time claim for every 122,000 hours worked.

By 2014, the most recent data available, the numbers were down to 15 disabling injuries and zero lost time claims.

As of April 2017, Waiward has accumulated more than 4.66 million hours free of lost time incidents since 2013 compared to a previous all time high of 500,000 hours. That is an 800 per cent improvement over historical averages (and a 3,700 per cent improvement over 2012). The cost savings to the firm of not having to handle the consequences of lost time claims and other safety incidents are huge; the benefit of this increased safety on-the-job to the workers is even more important, if hard to quantify.

Waiward also reports more than 443,000 hours without a medical aid intervention to date. Internal calculations of the cost savings due to reduced need to investigate and mitigate losses due to medical aids has been estimated to be $1.5 million, over three years. Again, the benefit to the workers who are not being hurt on-the-job is a bigger reward.

As a consequence of the reduction in claims, Waiward's WCB premiums per hour of work covered have been reduced to almost half of what they were prior to the adoption of competency assessment. That is a saving of tens of thousands of dollars per year.

The MODOS system also manages the safety and training certificates required by workers on Waiward's sites. The COO reports that once the cloud-based competency program is implemented industry-wide, not having to manually search for and track the required certificates every time someone reports for work would save Waiward alone upwards of $500,000 per year (at peak times).

There is no doubt that working hard to make sure that people are competent to do the tasks they are assigned is making Waiward's worksites safer. The dramatic improvement in its safety record is also paying huge dividends in actual cost savings, and in morale and engagement on-the-job.

EXPANDING TO OTHER FIRMS IN THE SUPPLY CHAIN

MODOS, the database and software program developed to keep track of the workforce competency program and worker certificates, has expanded to become the bedrock of a whole new technology and training company called MODOS Performance Solutions LP. In the fall of 2016, Hillcore Group, the owners of Waiward, started this new company, which is operationally independent of Waiward Steel LP.

The intent is to bring other firms and groups, including unions, into the partnership. MODOS, in its ultimate form, will become a community of firms within which partner firms and organizations share applications designed to improve operations and enhance safety, productivity and competitiveness. All participants will be able to develop and license program enhancements to others in the MODOS community. MODOS will evolve into a continuous learning, competency management, system operations platform.

The intent is that MODOS will:

- House a searchable database of task-related competency profiles of workers employed by the participating firms

- Make those profiles available to the other partner firms and organizations
- House and make available proven procedures and processes that are considered best practices
- Provide operations management systems for partner organizations (in private mode)
- Offer other vetted learning applications
- Yield other, yet to be determined, outcomes from the continuous learning made possible by the MODOS platform.

MODOS' access to large amounts of data will enable machine learning about the skills and competencies of workers in many occupations, across geographies, and over time, will be possible. MODOS has the capacity to become the human resources and operational tool that allows firms, and their associated unions, to meet current and future competency demands. In a world where technology, automation and other disruptive changes are happening more rapidly than humans can keep pace, MODOS could become an integral part of any training and operations solutions.

To date, five very large international construction sector firms have indicated that they are close to signing, or already have signed on with MODOS. Graham Construction and Engineering Inc. and Mammoet have already signed. The Ironworkers Union Locals 720 and 725 have also signed on. The Ironworkers International has maintained its support right from the beginning, and other Ironworkers Locals are indicating interest. The International Union of Operating Engineers Local 955 have also indicated strong interest in being early adopters in this community of firms.

MODOS WILL WORK FOR INDUSTRY ASSOCIATIONS TOO

Recently, a 64-member industry association signed on as a partner in MODOS. Originally designed as a buyers group for the sector it serves across Canada and the U.S., it sees the benefits it will gain from knowing collectively the competence of their workforce.

It will use the data it can obtain from MODOS to see trends, identify training needs, and prepare for future work. This will give the members of the group a huge competitive advantage over firms who do not (yet) belong to it.

CONCLUSION
THE WAIWARD CASE STUDY

While other companies have implemented competency programs, none have gone so far or so deep within their organizations. It is more usual for companies use a checklist of competencies required by the tasks of the jobs, and to check off these competencies through a subjective appraisal. Rarely do these firms identify the competencies required by the subtasks of the job, or begin to define how these competencies should be assessed objectively through observation on-the-job.

Waiward has done all of this, and moved its workplace culture from one which complies fully with safety regulations to one that is safer because its workers are truly competent. In another unusual move, Waiward is offering its competitors, and its supply chain, the opportunity to use what it learned and move in the same direction. Given time, and continued commitment, this has the potential to radically change for the better the way the Canadian construction sectors manage safety, their human resources, and ultimately the sectors themselves.

WAIWARD HAS MOVED ITS WORKPLACE CULTURE FROM ONE WHICH COMPLIES FULLY WITH SAFETY REGULATIONS TO ONE THAT IS SAFER BECAUSE ITS WORKERS ARE TRULY COMPETENT.

WHERE THE IRONWORKERS UNION IS NOW

Ironworkers Local 720 has access to the competency assessments of its members who have worked for Waiward in the last few years. It can modify the assessments to remove any information concerning personality or attitude that could compromise a worker's experience when they are dispatched to a new firm. It is committed to forwarding these assessments when they dispatch workers to other firms that take up the competency program. Over time, the union will have assessments from other contracted employers. This will provide the information needed to work with people who consistently are assessed as having poor attitudes, as well as to offer training to people who need to develop better technical competencies.

Leadership at the Ironworkers International has shown full commitment to the competency approach. Given the Canadian Ironworkers Union slogan being, "Better People, Better Built," it is consistent with helping their members to be the best they can be.

However, Local 720 has recently gone through a big change in its own leadership, and has yet to take up the full value of the program. Perhaps because Waiward is the only one of their contracted firms involved in it, they do not yet see its potential. Even though Local 720 now has access to the competency profiles of their members who have been working for Waiward (more than 3000 individual assessments), it is not yet using that information to manage its members' competencies and their careers. The culture shift required for the union to start using competencies to full advantage is still at a very early stage.

It will be a culture shift. Politically, it will be difficult for the union to proceed with a competency approach to developing and deploying their members, especially if it is seen by those members to be an employer led initiative. The union will need to show that the "pilot" at Waiward has proven the benefits to their members. Now that it has access to the competency assessments of their members, it should take the competency program on as a union-led initiative. A competency program improves the safety and employability of its members, something with which the non-union labour organizations cannot compete.

For more on how unions could take better advantage of the competency approach to developing and deploying their members, and become strategic human resources partners with their contracted employers see *The Skill Advantage: The challenge for unions in the 21st century.*[15]

[15] Lane, J and Griffiths, J. *The Skill Advantage: The challenge for unions in the 21st century.* Canada West Foundation, May 2017.

WAIWARD STEEL
From compliance to competence

4.66
MILLION HOURS

free of lost time incidents since 2013

800%

improvements over historical averages

443,000
HOURS

without medical aid intervention to date

>$1.5
MILLION OVER 3 YEARS

in cost savings

THE CANADIAN NATURAL

Case Study

When the oil upgrading and refinery business doesn't get safety right, the consequences can be dire.

In the worst cases, people are killed in explosions and resulting fires. Others are badly injured. Sometimes thousands of local residents must be evacuated and some hospitalized. In every case, work shuts down, production is lost, and profits suffer, as does public perception of the industry. It is becoming widely recognized that the industry can and must do better. And, it is.

Explosions and fires at refineries are often caused by leaks. A paper in *Inspectioneering Journal* point out, "The perception that bolted joint leakage is part of an 'every-day operating fact of life' seems particularly prevalent in the refining industry."[16] For a refinery, replacing and repairing flanges comes with the second highest cost of repairs.[17]

While traditionally about 40 per cent of refinery exchangers will leak within three to five years of installation, it does not have to be that way.[18] Leaks can be drastically reduced, even eliminated, by using a better process with the right tools, and ensuring that the people using them are competent. But first, it takes commitment to making that change.

Canadian Natural Resources Limited made such a commitment. The firm's core tenet of "Safe, Steady, Reliable" operations drove it to reduce costs and improve safety and reliability by adopting "best in class" practices in flange management. The Bolted Joint Integrity Management (BJIM) program was implemented with the goal of zero bolted joint leaks in every plant start-up or restart. After early successes, it was applied to all operations.

At first, the team of people tasked with the job faced the usual challenges that accompany the implementation of a transformational change. Old habits die hard. They acknowledge that they would not have succeeded without the backing of the executive team. They also found that having champions to cheerlead the program was essential.

Safe and reliable valves, flanges and other pressure equipment is core to safety in any petrochemical or industrial plant. Canadian Natural implemented its BJIM program, beginning with the Horizon primary upgrader and the associated plants north of Fort McMurray, Alberta, in February 2015.

[16] Brown, Warren, Wayne McKenzie and Shane Ryan. "Obtaining Leak Free Bolted Joint Operation by Returning to Basics" *Inspectioneering Journal* 15(5) (2009): p. 4. Accessed April 24, 2017, https://inspectioneering.com/journal/2009-09-01/192/obtaining-leak-free-bolted-joi.

[17] Cox, Lees, and Ang, cited in Kaye, Alwyn. "Undertaking Bolted Joint Integrity Management: Getting to Zero Leaks Quickly and Effectively." In ASME 2016 Pressure Vessels and Piping Conference, pp. V003T03A010-V003T03A010. American Society of Mechanical Engineers, 2016.

[18] Brown, McKenzie and Ryan cited in Kaye, Alwyn. "Undertaking Bolted Joint Integrity Management: Getting to Zero Leaks Quickly and Effectively." In ASME 2016 Pressure Vessels and Piping Conference, pp. V003T03A010-V003T03A010. American Society of Mechanical Engineers, 2016.

It is the practice in the oilpatch to do regular maintenance by shutting down a whole plant, and basically taking it apart, cleaning and replacing components, and putting it back together again. The start-up period is a tense time, as that can be when faults cause leaks and sometimes fires.

The old process had been in place in the sector for decades. However, Canadian Natural has now re-bolted more than 40,000 flanges in its plants using the BJIM process. Post-maintenance startups have been accomplished with zero leaks, and zero fires.

There were costs involved in developing and offering the training to people involved in replacing flanges using the new process. The American Society of Mechanical Engineers offers training in the process – but it involves at least a week in a classroom. Because Canadian Natural would have to train thousands of people in using this process, and given the importance to changing old beliefs and processes, it worked to get the salient points down to half a day of classroom and two days of hands-on experience.

Every turn-around involves thousands of people who, in general, want to do good work. Many of those people are the boilermakers, pipefitters and millwrights who are tasked with installing the fittings, flanges and pressure equipment. They need the full training. Others involved in the turn-around such as planners, plant operators, and shift team leads also need to understand the new process and why it was so important to change the way things were done. The training has been successful; people can see the value in doing things consistently well, and have embraced the change.

Each flange and piece of hardware must be properly torqued which requires the proper use of the correct tools. It also requires consistent use of quality lubricants. In another innovative change, Canadian Natural tagged each flange with a unique number. The tagging system required its own software to track those thousands of tags. This change was not simple. The firm has invested more than a million dollars into the program, for the training, software, and tools.

Over the last two years, the program has expanded as Canadian Natural upgrading operations have expanded. There are now about 18 plants and 85,000 flanges under the BJIM program.

However, it has been worth it. The program is working, far fewer leaks are being experienced and the costs of maintenance of this hardware have been reduced by an estimated 30 per cent. That amounts to millions of dollars in returns. The company is maintaining its 18 plants with fewer maintenance staff. Also, the reduction in leaks and fires has meant huge savings in direct costs. Of course, the saving in human terms is substantial.

Canadian Natural Resources Limited is not alone in Canada for taking up this new, better – and safer – way of installing flanges. Other plants and companies are quickly adopting this or similar programs, recognizing the need and the benefits. Other companies are also finding that having a competent workforce, doing safer work, is better for everyone concerned – and for the bottom line.

The cost savings to the firm of not having to handle the consequences of lost time claims and other safety incidents are huge;

THE BENEFIT OF THIS INCREASED SAFETY ON THE JOB TO THE WORKERS IS EVEN MORE IMPORTANT.

CONCLUSIONS & RECOMMENDATIONS

Despite binders full of rules and regulations aimed at make working in this country safer, Canada still has a workplace safety problem. Those rules and regulations continue to be important, but it is impossible to legislate every possible safety issue, or to constantly monitor every workplace for infractions. Applying the consequences for poor safety practices after someone has suffered an injury is too late.

A better way, as shown in the two case studies in this paper, is to follow all the rules – and then go beyond them. Ensuring that workers are competent to do the work they are assigned, by observing and assessing their competence against standardized criteria, is the better way.

To make Canada's workplaces safer we recommend that:

- Canada build and implement a system of competency frameworks for all jobs, including standards for competence and criteria for assessing competence in the tasks and subtasks of those jobs. Employers should contribute their knowledge about the tasks and subtasks of the jobs on their worksites to the development of a pan-Canadian competency framework for their sector.
- Employers adopt a competency approach to workforce development and deployment – including assessing workers for competence by observing their work on-the-job – and then fill training gaps as quickly as possible.
- Where applicable, unions work with employers to implement workplace competency programs.
- Individuals request training when they feel less than fully competent.

Competence is a big part of the answer. The examples in this paper show that concerted efforts by employers can drastically improve safety records, providing benefits to their employees and society, while also contributing to their bottom lines.

APPENDIX 1

Ironworking

Ironworking is a trade, and like all trades is subject to provincial or territorial regulation. It is also a designated Red Seal trade in Canada. The Red Seal program works to set common standards of training and practice across all the jurisdictions. In Alberta, workers must either have a Red Seal or certification from another province to practice as a journeyperson ironworker. Becoming a generalist journeyperson ironworker generally involves a four-year apprenticeship, including annual sessions in a training program, and 1500 hours per year of working in the trade under the supervision of a journeyperson. The final step is the four-hour Red Seal exam. People who can prove they have sufficient hours to qualify may challenge the exam without going through a formal apprenticeship.

Generalist ironworkers can do all the work involved in ironworking, including reinforcing work and structural work. In Alberta, they can become either a generalist ironworker or one of the two sub-trades: The Structural/Ornamental Ironworker is a three-year program, including 1500 hours of on-the-job learning per year and three sessions in the classroom; or, the Reinforcing Ironworker, which takes only two years.

In Alberta, ironworking is a compulsory trade, that is, those who practice the trade must either be a journeyperson ironworker or a registered apprentice. Also, in Alberta, the Ironworkers Union is the employer of record of apprentice ironworkers. This is important because the union is therefore responsible to ensure their apprentices have experience in and learn all the skills of the job. The union signs off on the log book (known as the Blue Book) of apprentices, which details all the experience the apprentice has gained.

APPENDIX 2

TABLE 1: HOW WAIWARD'S COMPETENCY RATING SCALE FOR JOURNEYMEN IRONWORKERS CHANGED OVER TIME

JANUARY 2013	MAY 2016	FEBRUARY 2017
COMPETENT 1 Excellent qualifications, training and experience to safely perform work without supervision.	**MASTERS COMPETENCE (C1)** Consistently dependable and highly reliable on executing the competence listed without compromising safety and quality.	**MENTOR (M1)** Effectively executes the competence listed without compromising safety and quality with the willingness to teach, coach, and motivates others.
COMPETENT 2 Good qualifications, training and experience to safely perform work without supervision or with only a minimal degree of supervision.	**EXCEEDS COMPETENCE (C2)** Routinely dependable and highly reliable on executing the competence listed without compromising safety and quality.	**EXCEPTIONAL (C1)** Effectively executes the competence listed in the most challenging environment without compromising safety and quality.
COMPETENT 3 Adequate qualification. Suitable training, and sufficient experience to safely perform work with only a minimal degree of supervision.	**COMPETENT (C3)** Performs basic job functions/ duties on a day-to-day basis without compromising safety and quality.	**COMPETENT (C2)** Performs basic job functions/ duties on a day-to-day basis without supervision and without compromising safety and quality.
NEEDS TRAINING (NT) The employee is expected to be competent for using this tool or completing this task to work on this site and is not competent according to Waiward's definition. Before this employee can be assigned this specific task/tool, this employee must receive adequate training, and must be re-evaluated as competent.	**NEEDS TRAINING (NT)** Training is required to further develop skills.	**NEEDS TRAINING (NT)** Supervision and additional training is required to further develop skills.
NOT APPLICABLE (NA) The employee is not expected to be competent for using this tool or completing this task to work on this site.	**NOT APPLICABLE (NA)** Competence listed is not required for current position.	**NOT APPLICABLE (NA)** Competence listed is not required for current job.
NOT SUITABLE (NS) The employee is not suitable for using this tool or completing this task to work on this site.	**NOT SUITABLE (NS)** Does not fulfill the requirements due to physical abilities, safety infractions, and/or quality deficiencies. Or, does not produce quality work, even when provided with additional training or time.	**NOT SUITABLE (NS)** Does not fulfill the requirements due to physical abilities, safety infractions, and/or quality deficiencies. Or, does not produce quality work, even when provided with additional training or time.

Source: Waiward Steel LP

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THE HUMAN CAPITAL CENTRE CHAMPIONS A WEST THAT PROSPERS AS ITS PEOPLE REACH THEIR FULL POTENTIAL. PEOPLE WHO ARE FULLY COMPETENT FOR THEIR JOBS WORK SAFELY AND PRODUCTIVELY AND ARE MORE LIKELY TO REACH THAT FULL POTENTIAL.

CANADAWEST FOUNDATION HUMAN CAPITAL CENTRE