September 26, 2025 |

Briefs

Submission to WCB re proposed amendments to Part 6, Combustible Dusts

A pdf of the complete submission can be found here.

Submission

The BC Federation of Labour (“BCFED” “Federation”) appreciates the opportunity to provide our recommendations with respect to the proposed amendments for Part 6, Combustible Dusts and subsequent changes to Part 4, General Conditions, Part 5, Chemical Agents and Biological Agents, and Part 31, Firefighting in the OHS regulation.

The Federation represents more than 500,000 members of our affiliated unions, from more than 1,100 locals working in every aspect of the BC economy. The Federation is recognized by the Workers’ Compensation Board (“WCB,” “Board”) and the government as a major stakeholder in advocating for the health and safety of all workers in BC and full compensation for injured workers.

The BCFED has actively participated in consultations on the development of the proposed amendments, and we are pleased that several recommendations made in our 2023 submission have been incorporated into the presently proposed language. However, since the last public consultation, changes have been made to narrow the application of the proposed provisions, and to remove requirements for risk controls related to machinery and equipment.

The BCFED strongly disagrees with these changes. We believe they serve to narrow and weaken the new requirements. In our submission, we make recommendations for an alternative approach.

We urge the Board of Directors to seriously consider our recommendations so we meet our goal to ensure that BC health and safety regulations set standards that will prevent workers from injury and death.

This submission was prepared in consultation with our affiliates. The BCFED is grateful to the United Steelworkers (“USW”) for their expertise and insight into combustible dusts and their assistance with this regulatory review.

We will address those sections of the regulation we believe require further amendments.

Introduction

The proposed combustible dust regulation resulted from the tragic dust explosions at the Babine Mill in Burns Lake and Lakeland Mill in Prince George in January and April of 2012. The Babine Mill explosion killed Robert Luggi Jr. and Carl Charlie and injured 19 workers. The Lakeland Mill explosion killed Alan Little and Glenn Roche and injured 24. Many of those workers who were injured suffered life-altering physical and psychological injuries. These tragic events continue to impact families, co-workers and whole communities.

BCFED President Sussanne Skidmore lived in Prince George at the time of the Lakeland Mill explosion. She recalls standing on her patio, hearing sounds of the explosion, seeing the smoke coming off the buildings and wondering if she knew any of the workers on shift that day. It turned out she did know many of the workers on that shift because Prince George is a small, close-knit community. Sussanne, who at the time was the first Vice Chair of the North Central Labour Council, worked with the United Steelworkers to support the injured workers and the surviving families.

Crown Counsel reviewed both cases and determined that no criminal charges would be laid, citing the WCB substandard investigation process as the main reason. The employers were given the

largest WCB fines at the time. Babine Mill was fined over a million dollars and the Lakeland Mill $724,000.

The government also commissioned two reports in 2014 — the Dyble Report and the Macatee Report. Together, these reports and the 2015 BC Coroners Service verdicts included numerous recommendations directed at government and other agencies on how to make improvements to workplace safety, inspections, education, enforcement and investigations.

Coroner's inquests were held in 2015 into both explosions, but these inquests, as a strictly factfinding process, left the families and the victims with more questions than answers.

The families were profoundly disappointed and in 2016 called for a public inquiry into the two incidents – the USW and the BCFED supported their demand.

In 2019, the government contracted lawyer Lisa Helps to assess both government's and WCB's progress in implementing recommendations stemming from past reports. In the report "Crossing the Rubicon," Helps found all recommendations from these reports have been implemented and the changes have largely been effective and positive. She was also tasked with making recommendations for further actions to strengthen investigations to ensure those responsible for workplace incidents are held accountable.

In 2014, the WCB introduced three new policies under the *Workers Compensation Act* ("WCA") relating to wood dust mitigation and control: P 2-21-3 Employer Duties; P 2-22-2 Worker Duties and P-23-3 Supervisor Duties.

These policies were introduced because the *Occupational Health & Safety Regulation* ("OHSR") has no regulation specific to combustible dust.

The intent of the proposed amendments is to provide more robust and structured regulatory requirements for workplace combustible dust.

The BCFED appreciates the work of the WCB on this important project.

Once the regulation is implemented, BC will lead the world in having the first combustible dust regulation.

Section 6.133 (1) Definitions

Recommendation

We reiterate our previous recommendation to remove both “combustible dust management program” and “combustible dust provisions” from the definitions as these are not definitions but directions on where to find them in the regulation.

Recommendation

We reiterate our previous recommendation regarding providing a more robust definition or explanation of combustible dust ignition. The BCFED recommends a further amendment to the combustible dust ignition definition to include the National Fire Protection Association (“NFPA”) criteria for combustible dust ignition, including a list of ignition sources as per the OHSR, Section 5.27 (2). Additional details supporting this recommendation are provided in our 2023 submission (page 6).

Section 6.134 What dust is covered

The Board previously proposed language to define which workplaces the new combustible dust provisions would apply to. In 2023 and 2024, the Board had proposed that the requirements would apply to all workplaces where combustible dusts were handled or generated, with only dust in a sealed commercial package being exempted. This meant that all workplaces with combustible dust would be required to conduct a risk assessment and implement a management program. In 2023 and 2024, the proposed amendments read:

> *6.134 (1) Subject to subsection (2), the combustible dust provisions apply in relation to dust at a workplace that is*
>
> *(a) handled at the workplace*

(b) generated at the workplace as a product, byproduct or waste of a work process at the workplace.

(2) The combustible dust provisions do not apply in relation to a sealed commercial package.

The amendments now proposed for this section are significantly revised. The new language narrows the application of the combustible dust provisions by excluding workplaces where “there is no reasonably foreseeable risk of injury or death to a worker from the combustion of dust.” Specifically, the proposed amendments say:

6.134 (1) Subject to subsection (2), the combustible dust provisions apply in relation to dust at a workplace if the dust is an input, product, byproduct or waste of a work process.

(2) The combustible dust provisions do not apply in relation to

(a) a workplace where there is no reasonably foreseeable risk of injury or death to a worker from the combustion of dust, or

(b) dust that is in a sealed commercial package.

The explanatory notes say the purpose of the revisions is to “create an alternate pathway for compliance” by exempting employers where there is “no reasonably foreseeable risk of injury or death.” The notes assert that only workplaces that are “in the lowest range of risk from combustible dust” are meant to be excluded from the requirements.

Further, the notes explain that the Board intends to develop a guideline or another resource to assist employers to understand whether there is “no reasonably foreseeable risk of injury or death” from combustible dust at their workplaces. The resource would set out factors for consideration and items that would indicate that there is a reasonably foreseeable risk.

In short, the Board's plan is to develop guidance for employers to complete a kind of initial screening risk assessment to first determine whether or not there is a "foreseeable" risk to workers from combustible dust at their workplace. However, this guidance is to be provided outside of the regulation. This approach creates a gap where the proposed regulatory language does not clearly and explicitly establish a proactive responsibility for employers to credibly assess the risk to workers before determining that the combustible dust provisions do not apply.

As such, the BCFED is strongly opposed to the proposed amendments in Section 6.134.

Combustible dust is found in wide range of workplaces, and even small amounts of combustible dust can pose a serious risk of injury or death to workers and others, not to mention significant financial losses to employers and communities. As noted in materials from the Canadian Centre for Occupational Health and Safety ("CCOHS"), dust explosions have occurred in many different types of workplaces and industries, so essentially any workplace that generates or handles dust is potentially at risk.[1]

In our view, the seriousness of the hazard means all workplaces that generate or handle combustible dust should be explicitly required to do a proactive assessment of the level of risk. Further, the assessment should be documented and shared with workers and their representatives.

According to combustible dust expert Paul Amyotte, combustible dust incidents continue to occur, in part because of the failure to identify the hazard and effectively understand the associated risks. The idea that dusts are not potentially explosive or that "it won't happen to me" are longstanding and pervasive myths in relation to combustible dust.[2] In this context, it is critical to establish clear, explicit requirements to guide both employers and workers.

The previous general requirements are broad enough to apply to all workplaces, including those with very low risk. Simple tools can be developed to assist low-risk employers to meet the requirements more easily.

Recommendation

The BCFED strongly recommends that the Board amend this section to clearly define employer responsibilities by reverting to the previously proposed language in Section 6.134.

If the Board is determined to create an exemption within the regulation, the BCFED recommends that it be accompanied by a clear responsibility for employers to credibly determine whether there is a risk to workers.

Specifically, this means including in the OHSR language requiring employers to complete and document an initial screening assessment of their workplace in a defensible way, using a method that is provided by or acceptable to the Board, and involving workers.

Section 6.138 Identification of combustible dust – ignitability; and Section 6.139 Identification of combustible dust – deflagrability

These sections determine for the purposes of Section 6.137 (a) and (b), the employer must consult with a qualified person and provide acceptable methods to establish by analysis whether a dust is ignitable and deflagrable or not.

These sections refer to specific standards for testing. But in both sections the WCB also allows for “a similar screening test published by a national or international body or standards association.”

The explanatory notes say that the Board anticipates developing guidance resources to:

> *…provide examples of acceptable national or international bodies or standards associations where the test method used is verified as appropriate.*

However, we are again left wondering as to why the WCB is allowing other standards that are undefined and unnamed within the regulation to determine ignitability.

We point again to model language from OHSR Part 6, Respirable Crystalline Silica (RCS) and Rock Dust, Section 6.112.3 Air monitoring for RCS dust:

> *(2) Acceptable sampling and analytical methods for the purpose of subsection (1) are as follows:*
>
> *(a) a method detailed in a standard occupational hygiene reference published by*
>
> *(i) the National Institute for Occupational Safety and Health, or*
>
> *(ii) the Occupational Safety and Health Administration;*
>
> *(b) another method acceptable to the Board.*

Recommendation

The BCFED reiterates its previous recommendation that Sections 6.138(a)(ii) and 6.139 (a)(iii) be removed and a new section modelled on Section 6.112.3, Air Monitoring for RCS be added to each section.

Qualified person

The requirement to consult with a qualified person (“QP”) appears first in Sections 6.138 and 6.139 and then is found throughout the rest of the proposed amendments.

In our 2023 submission, the BCFED made detailed comments about the role of the QP, which we want to reiterate here. We remain concerned about the lack of detail about how QPs are identified and what qualifications are required. We emphasize that we think information about the appropriate qualifications for a QP should be included in the regulation to give clear directions to employers when they are considering who the QP will be. The existing language in OHSR Part 9, Confined space, Section 9.11, Qualifications offers a good model.

Recommendation

We again recommend a further amendment to Part 6, Combustible dusts, to add a new section on qualified persons modeled on the language of Part 9, Confined space, Section 9.11, Qualifications.

Section 6.140 Combustion risk assessment

The requirements for conducting a combustion risk assessment are set out in this section. In our previous submission, we recommended that a proposed requirement for the risk assessment to be prepared “as soon as practicable” be removed. We are pleased that the Board accepted this recommendation, and we support the addition of a specification that the risk assessment must be in writing.

However, in the proposed amendments, the language about updating the combustion risk assessment was revised to say:

> *(3) A combustion risk assessment must be updated as soon as practicable after there is a significant change in any of the following:*
>
> *(a) rooms, buildings or other structures;*
>
> *(b) machinery or equipment;*
>
> *(c) work processes.*

The BCFED strongly disagrees with the word “practicable” as applied to when an employer must perform or update a risk assessment. As we noted in our 2023 submission, “practicable” is not referenced in any other sections of Part 6 in relation to the requirements for a conducting an initial risk assessment or for updating a risk assessment. Risk assessments are a foundational part of an occupational health and safety management program and updates should be prioritized, not completed when it suits the employer.

Incidents can also provide significant information about the accuracy of an existing risk assessment and should also justify a review and update of the assessment to ensure it reflects workplace

conditions.

Recommendation

The BCFED therefore strongly recommends Subsection (3) be amended to remove the phrase “as soon as practicable.”

Further, the BCFED recommends a further amendment to Subsection (3) to require a combustion risk assessment to be reviewed and updated as necessary following an incident.

Section 6.141 Combustion dust management program

Section 6.141 (1) outlines the elements that must be included in the combustible dust management program:

> *6.141 (1) A combustible dust management program must*
>
> *(a) describe how the employer will implement the controls required by sections 6.147 to 6.159, as applicable,*
>
> *(b) specify any additional controls that are necessary to minimize combustion risks and describe how those controls are to be implemented,*
>
> *(c) include schedules and procedures for carrying out regular inspections of any of the following that could give rise to a combustion risk:*
>
> *(i) rooms, buildings or other structures;*
>
> *(ii) machinery or equipment;*
>
> *(iii) work processes,*

(d) include procedures for responding to the failure of a control referred to in paragraph (a) or (b), and

(e) include procedures for responding to an unintended combustion of dust.

Missing from the above list are procedures for conducting prompt, thorough investigations following incidents. And, an effective management program should include a provision for worker participation, including proactively sharing information with workers, and ensuring worker participation in both inspections and investigations.

Recommendation

The BCFED recommends amending this section to require a combustible dust management program to include procedures for the investigation of incidents, provisions for worker representatives to participate in investigations and inspections, and procedures for the proactive sharing of information with workers and their representatives.

Section 6.141 (3) says:

(3) A combustible dust management program must be updated as soon as practicable after a review under section 6.142, if changes are necessary to minimize combustion risks.

Recommendation

The BCFED recommends removing the phrase “as soon as practicable” in this subsection.

Next, Section 6.141(3) describes who must administer the combustible dust management program. The proposed amendments require “an individual” to be assigned responsibility for the program:

(4) An employer who is required under section 6.135 (b) to prepare, implement and update a combustible dust management program for a workplace must assign overall responsibility for coordination of the program to an individual who

(a) is the employer or an employee of the employer, and

(b) is knowledgeable about all of the following that are applicable to the workplace:

(i) the controls described in the program;

(ii) the safe operation of the relevant machinery and equipment.

The BCFED appreciates that this subsection has been revised from the 2023 and 2024 proposed amendments. We support the change in Subsection 6.141(4)(b) from requiring the individual with overall responsibility to be “knowledgeable about” controls and the safe operation of machinery to having to be “knowledgeable about all of the following that are applicable to the workplace.” We think this change provides greater clarity that it is expected that the responsible employees have specific knowledge of the workplace, not just general knowledge about controls for combustible dust.

Previous iterations of this section referred to a “single individual” having overall responsibility for the management program. The present language says the program must be assigned to “an individual.” While this appears to be an improvement that may technically allow multiple people to be responsible for the management program at different times, we remain concerned that more clarity is needed here to address the practical realities of the workplace.

In our 2023 submission, we were concerned that giving this responsibility to one person will inevitably mean there will be gaps when the person is not available.

Recommendation

The BCFED recommends a further amendment to Section 6.141 stating that responsibility for administration of the combustible dust program be assigned on a continuous basis to a person or persons knowledgeable and trained to do so.

Section 6.43 Instruction and training

In this section, the proposed amendments require instruction and training for workers who could be exposed to a combustion hazard.

According to the explanatory notes, in large workplaces, combustible dust might only be present in some areas of the workplace, so not all workers must receive instruction and training. And, the degree of instruction and training might vary for different workers based on their exposure.

In our previous submission, the BCFED strongly disagreed with the potential exclusion of workers from any instruction and training on combustible dust based on their exposure. We reiterate that position here and urge the Board to reconsider its approach on this issue. All workers have a right to know about the hazards at their workplace, and the employer should be required to provide training and education for all workers.

Our view that all employees should receive some training aligns with safety agencies in the United States ("US"). First, the US Chemical Safety and Hazard Investigation Board ("CSB") conducts large-scale investigations into major combustible dust explosions and fires and is probably the best source for learning lessons from these incidents. In its investigation reports, the CSB has repeatedly recommended training for all employees, as well as refresher training. For example, following a dust explosion at a titanium plant in West Virginia in 2010 that killed three workers, the CSB recommended that the company:

> *Develop training materials that address combustible dust and plant-specific metal dust hazards and train all employees and contractors. Require periodic (e.g., annual) refresher training for all employees and contractors.**[3]***

The National Fire Protection Association's ("NFPA") standard for Combustible Dusts[4] requires general safety and hazard awareness training not just for direct employees, but also for contractors, visitors and temporary employees. According to the NFPA standard (see Section 8.8.3), refresher training is to be provided at least every three years.

Two decades ago, the Occupational Safety and Health Administration ("OSHA") in the US issued a Safety and Health Information Bulletin on preventing and mitigating fires and explosions from

combustible dust. The bulletin included an explicit recommendation that all employees at the workplace receive training about combustible dust.

> *Workers are the first line of defense in preventing and mitigating fires and explosions. If the people closest to the source of the hazard are trained to recognize and prevent hazards associated with combustible dust in the plant, they can be instrumental in recognizing unsafe conditions, taking preventative action, and/or alerting management. While OSHA standards require training for certain employees, all employees should be trained in safe work practices applicable to their job tasks, as well as on the overall plant programs for dust control and ignition source control. They should be trained before they start work, periodically to refresh their knowledge, when reassigned, and when hazards or processes change.[5]*

Again, we remind the Board that combustible dust explosions level whole workplaces and kill and injure workers. In the two mill explosions in BC, four workers died, many workers were injured and buildings and structures were destroyed. The only workers who were not directly impacted were those who were not at work at the time of the explosions.

Recommendation

Therefore, the BCFED recommends Section 6.43 be amended to:

- be inclusive by ensuring that all workers at the workplace, contractors and visitors be provided with instruction and training;
- require annual refresher training for all workers at the workplace; and
- require employers to document the training and instruction provided to workers.

Subsections (a) (b) (c)

These sections set out the content of the instruction and training:

> *(a) the hazard;*
>
> *(b) the factors that could increase the combustion risk;*

(c) the applicable parts of the combustible dust management program.

In our 2023 submission, the BCFED recommended that additional detail be included in this section. In our view, it remains critical to ensure that employers are explicitly required to provide detailed instruction and training for workers to understand the hazard, the level of risk at their workplace and how to respond in case of an emergency.

Additional prescription about the content of worker training offers both clear guidance to employers and enhances enforceability where employers are not providing good quality, fulsome information to workers.

Recommendation

The BCFED recommends that the following be added to this section:

(d) risk controls;

(e) fire control;

(f) deflagration control;

(g) procedures after a fire or deflagration; and

(h) where employers have combustible dust in bulk storage, the written emergency response plan for responding to combustion of dust and determining if the burning is extinguished (as required by Section 6.149 (1)(b)).

Sections 6.146 - 6.156 Combustible dusts - Risk controls (General)

In our 2023 submission, we provided important comments on the Board's proposed amendments about risk controls for combustible dusts. These comments remain largely relevant to the presently proposed amendments, so we will reiterate and elaborate on them here.

According to the Explanatory Notes, Sections 6.147 to 6.156 set out risk controls requirements intended to focus on the five Dust Explosion Pentagon Factors.

However, as we pointed out previously, there is no specific reference to the Dust Explosion Pentagon Factors in the regulation. The pentagon is commonly used in health and safety standards and education materials about combustible dust. The BCFED believes it must be added to the regulation as it is an important tool to increase understanding of combustible dust at workplaces.

Recommendation

The BCFED again recommends adding the Dust Explosion Pentagon Factors to Section 6.133, Definitions.

Another point that merits reiterating is that the hierarchy of controls is not incorporated into the sections on risk controls, and we think it should be. The hierarchy is a fundamental principle of occupational health and safety and provides steps to follow to minimize risk if it cannot be eliminated.

Surprisingly, the explanatory notes say that the proposed amendments in the sections on risk control purposely “steer away from” adhering to the hierarchy of controls. Rather, the notes say that “the risk is best targeted using a layered approach whereby consideration ought to be given to every level of control available to an employer.”

The BCFED is concerned that the Board appears to believe that the application of the hierarchy of controls does not entail selecting multiple controls to protect workers from a hazard. In our view, the Board’s rationale for not referring to the hierarchy of controls in the proposed amendments represents a basic misunderstanding of the purpose and proper application of the hierarchy.

Guidance on the application of the hierarchy of controls from authoritative sources, including CCOHS and OSHA, is clear that using the hierarchy is a step-by-step process of considering and selecting the most effective controls first, and that as many controls as are needed to minimize risks to workers should be selected.[6] The Board’s own website says this about the hierarchy of controls:

When considering how to reduce the risk, there's a certain order you should follow. This is called the hierarchy of controls. It's important to follow the hierarchy, as shown below, rather than start with the easiest control measures.

Note that while the controls are listed in order of effectiveness, all four types of controls should be considered. They often work best in combination. For example, first responders cannot eliminate risks by choosing not to enter a burning building, but they can use engineering controls, administrative controls, and personal protective equipment and clothing to minimize the risks when they enter that building.[7]

If the Board believes that additional clarity about the selection of multiple risk controls is needed, this direction can be included in the regulation. OHSR Part 4, Section 4.20.2 (3) Hazard identification, elimination and control already explicitly requires employers to consider a combination of controls:

> *(3) For purposes of subsection (2) (b), the employer must minimize the risk from the hazard to the lowest level practicable using engineering controls, administrative controls or a combination of engineering and administrative controls.*

Recommendation

The BCFED recommends amending Section 6.146 to add the hierarchy of controls and requiring employers to implement multiple control measures according to the hierarchy.

More information on examples of control measures in each step can be provided in guidelines.

The BCFED believes this is an important amendment that embeds the hierarchy of controls in the regulation and will provide much-needed, clear direction and assistance to workers and employers on how to fix a hazard.

Previously proposed Sections 6.155 – 6.164 – Combustible dusts – Risk controls (Machinery and equipment)

The summary of the key changes made since the first public hearing acknowledges that a significant portion of the previously proposed amendments on risk controls for relevant machinery and equipment were dropped completely, with the Board citing a preference for a “performance-based” approach. The summary reads:

> *Sections 6.155–6.164 in the prior draft of the proposed amendments have been removed entirely. These were primarily prescriptive requirements.*

- *A more performance-based approach provides the appropriate means to address the risk posed by machinery and equipment which generates or handles combustible dust.*

The BCFED strongly disagrees with the wholesale removal of the previous Sections 6.155-6.164.

A “performance-based” approach to regulation involves setting outcomes or goals rather than specific requirements. The federal government offers this general definition:

> *Outcome, or performance-based, regulations specify the desired result that a regulation intends to achieve, rather than a prescriptive description of compliance. This type of regulation increases flexibility for regulated parties as well as departments and agencies, and requires the regulated communities to focus on achieving specific and measurable outcomes.[8]*

The BCFED notes that many of the previously proposed amendments in these sections were not actually prescriptive. Rather, they included performance-based requirements for specific systems commonly used to manage combustible dust.

For instance, Section 6.158 in the 2023 and 2024 proposed amendments set out key outcomes for pneumatic conveying systems and centralized vacuum cleaning systems. The systems were required to maintain sufficient air velocity both to avoid accumulations of dust in ducting and to purge dust before normal shutdown, and to minimize entry of foreign substances.

> *An employer must ensure that a pneumatic conveying system or centralized vacuum cleaning system that handles combustible dust is designed, constructed, modified, installed, maintained and operated so that*

(a) sufficient air velocity is maintained during operation of the system to

(i) avoid accumulations or concentrations of the dust in the ducting that could give rise to a combustion risk, and

(ii) purge the dust from the ducting before normal shutdown, and

(b) the entry of foreign substances described in section 6.148 is minimized.

The language did not prescribe the specific air velocity required, the method(s) for blocking foreign substances, or any other feature of the systems. Under these requirements, there would be many ways that employers could achieve compliance with a reasonably clearly-defined outcome – which is a hallmark of a performance-based approach.

Similarly, Section 6.163 included a performance-based approach to the requirements for ducting. The amendments proposed in 2023 and 2024 said:

(1) An employer must ensure that all ducting and related air-moving devices that handle combustible dust are designed, constructed, modified, installed and maintained so that the accumulation of dust on interior surfaces does not give rise to a combustion risk.

(2) An employer must ensure that supports for ducting that handles combustible dust are designed, constructed, modified, installed and maintained to carry the weight of

(a) the ducting,

(b) the materials handled by the ducting, and

(c) any additional weight that could result from fire suppression.

(3) Without limiting section 6.145, an employer must ensure that ducting that serves moveable relevant machinery and equipment

(a) is conductive, or

(b) meets both of the following criteria:

(i) the ducting does not accumulate an electrostatic charge that could give rise to a combustion risk;

(ii) the ducting is no longer than necessary to accommodate the movement of the relevant machinery and equipment.

Here again, the proposed amendments established clear outcomes for ducting, including that ducting must not allow accumulations of dust to give rise to a combustion risk and that the supports for ducting need to be strong enough. The type of ducting and supports, their capacity, nor the materials to be used are prescribed. The requirements set out in this section represented a performance-based approach. For the BCFED, removing performance-based requirements to achieve a more performanced-based approach just does not make sense.

Certainly, although many of the previously proposed sections were actually performance-based, they referred to narrower, more specific outcomes compared to the remaining general requirements for relevant machinery and equipment now proposed by the Board. The proposed language now says that employers must minimize combustion risks from machinery and equipment only, and that machinery and equipment must be designed and modified in consultation with a qualified person:

(1) An employer must ensure that relevant machinery and equipment is maintained and operated so as to minimize combustion risks.

(2) An employer must ensure that relevant machinery and equipment is selected, located and, if applicable, installed

(a) in consultation with a qualified person, and

(b) so as to minimize combustion risks.

(3) If relevant machinery and equipment is modified by or for an employer, the employer must also ensure that the machinery and equipment is modified

(a) in consultation with a qualified person, and

(b) so as to minimize combustion risks.

(4) If relevant machinery and equipment is designed by or for an employer, the employer must also ensure that the machinery and equipment is designed and constructed

(a) in consultation with a qualified person, and

(b) so as to minimize combustion risks.

In sum, the Board has decided to dispense with any specific requirements for machinery and equipment that generate or handle combustible dust – be they performance-based or not in favour of a very broad, vague performance standard.

As noted in the definition provided earlier, this kind of performance-based approach allows “flexibility” for employers to determine how to comply with regulatory requirements. In the long experience of the BC Federation of Labour, wide “flexibility” for employers means less protection for workers.

There are other risks associated with employing a performance standard with such broad objectives, especially for such a serious hazard - including a fundamental lack of clarity about what is needed to protect workers, reduced enforceability and higher costs for enforcement. [9]

Relying on employer-paid qualified persons to advise employers on how to meet a vague objective is a risk that can be minimized by more clearly defining objectives. This important issue was identified in a 2018 independent report on professional reliance in the natural resource sector in BC. The review found that several regulations did not provide adequate guidance to professionals in the form of objectives or results to be achieved, and recommended that government review regulations to ensure that objectives were adequately expressed and made known to professionals.[10] We think that

proposing to only say that employers must “minimize combustion risks” in relation to machinery and equipment is an example of an objective that is not defined enough, and is not an effective approach in this instance.

Machinery and equipment are leading sources of dust fires and explosions. Globally, dust collectors, elevators/conveyors, and dryers together accounted for 40.3% of combustible dust incidents in 2023.[11] In particular, dust collectors were the source of about 25% of all documented incidents between 2016 and 2023.[12] In both sawmill explosions in BC, inadequate conveying systems and ducting were identified by investigators as key contributing factors to those devastating incidents.[13] The outsized role of machinery and equipment in combustible dust fires and explosions deserves detailed regulatory attention, not a vague, hard-to-measure and hard-to-enforce performance standard.

In our view, the previously proposed sections were not overly detailed or overly prescriptive. Rather, the previous language included performance-based requirements and reasonable minimum requirements for the protection of workers. Section 6.155 required certain systems to have malfunction alarms. Section 6.156 said pneumatic conveying systems and bucket elevator systems must have a mechanism for automatic shutdown, and employers were required to investigate and correct the cause of an alarm and communicate back to the machine operators. According to Section 6.164, dryers were to have fire detection systems, and the buildup of resins and oils was to be addressed regularly. This language provided clear direction for employers and workers about priority measures to prevent fires and explosions.

The requirements in the previously proposed amendments also reflected elements included in NFPA standards. Today, the NFPA standards related to combustible dust are widely seen as authoritative and effective and should be applied by employers to address the risk posed from combustible dust.

However, the explanatory notes say that the Board plans to develop “guidance resources” on the very topics that were removed from the previously proposed amendments:

> *WorkSafeBC anticipates developing guidance resources which will elaborate on the requirements in s. 6.156 and the QP’s role in making the determinations called upon.*

Resources are also to be developed setting out recommended design criteria for specific types of relevant machinery and equipment commonly found in BC workplaces, such as dust collectors, enclosureless air-material separators, and dryers.

In our view, it is not appropriate to remove these sections from the regulation. Moving these requirements to “guidance resources” makes them less accessible to workers and employers, and unenforceable. Given the significance of machinery and equipment as contributors to fires and explosions, we think the effectiveness of the new regulation in protecting workers will be seriously limited.

Recommendation

Therefore, the BCFED strongly recommends that previously proposed Sections 6.156 - 6.164 on risk controls for relevant machinery and equipment be reintroduced into the regulation on combustible dusts.

Conclusion

We generally support the new combustible dust regulation and appreciate the efforts of the WCB’s Policy, Regulation and Research Department.

However, the BCFED strongly urges the Board to seriously consider our proposed amendments.

We encourage the WCB to develop an effective implementation strategy ensuring that all workers and employers are properly informed and supported to effectively practice these new requirements. Outreach to workplaces who have combustible dust will be critical because some employers and workers will not know this is a high-risk hazard in their workplaces.

The implementation strategy must be designed to take into consideration the diversity of the community of workers.

We urge the Board to provide the necessary resources to ensure effective implementation, ongoing inspections and enforcement.

[1] CCOHS OHS Answers Fact Sheet: Combustible Dusts, https://www.ccohs.ca/oshanswers/chemicals/combustible_dust.html

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