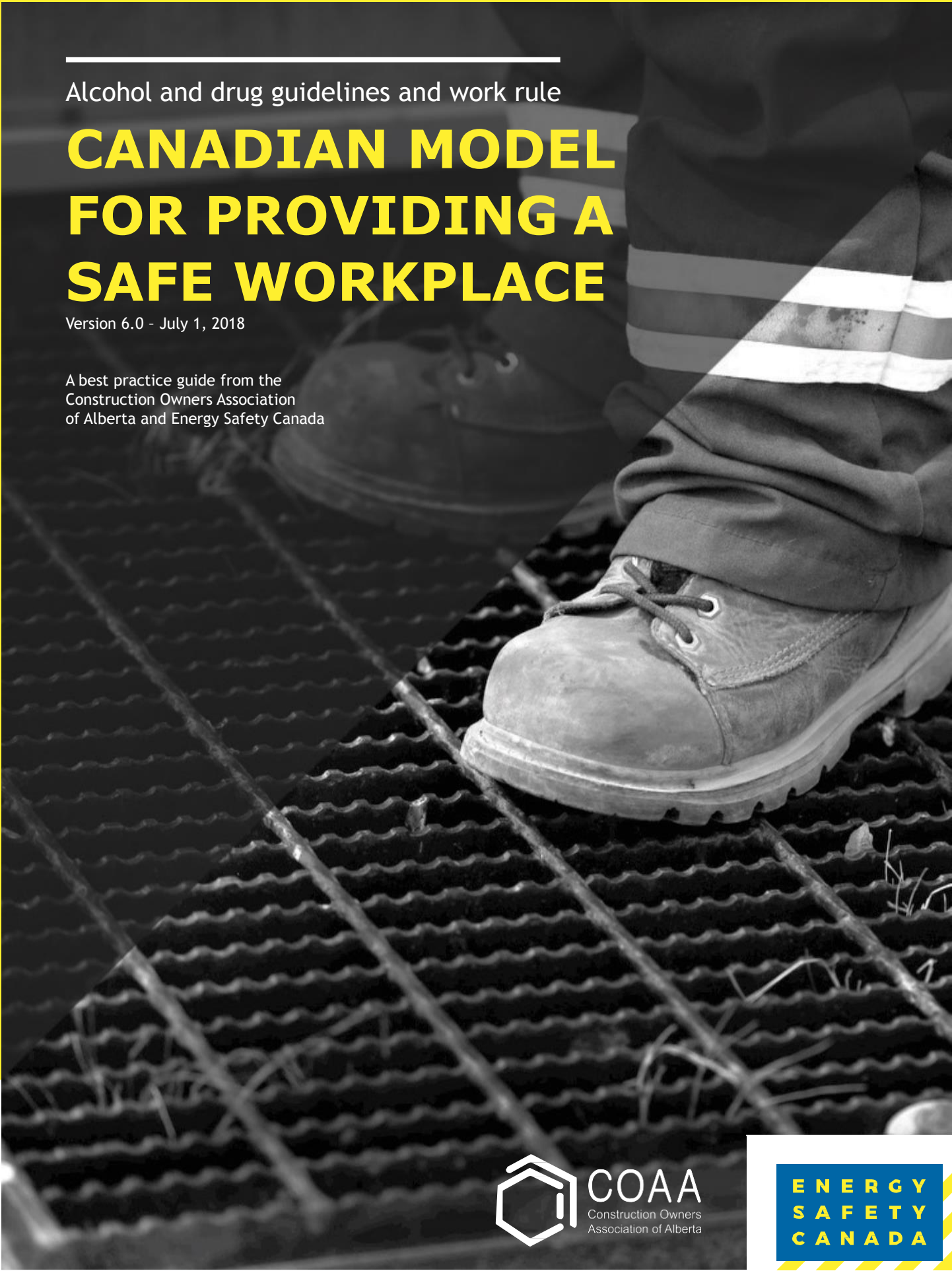




Alcohol and drug guidelines and work rule

CANADIAN MODEL FOR PROVIDING A SAFE WORKPLACE

Version 6.0 - July 1, 2018

A best practice guide from the
Construction Owners Association
of Alberta and Energy Safety Canada



ENERGY
SAFETY
CANADA

Note to readers

The Canadian Model for Providing a Safe Workplace was developed through a consultation process approved by the Construction Owners Association of Alberta (COAA) and Energy Safety Canada, which brought together volunteers representing varied viewpoints and interests to achieve a reasonable consensus in developing a general guideline for industry use. The content of this guide does not represent the views of any particular committee member. This document is a general guideline and it is strongly recommended that legal and other professional advice be obtained to complement and clarify specific implementation of this guideline. This guide is also subject to periodic review and readers should ensure they are referencing the most current version. Suggestions for improving this guide are welcome and can be submitted directly to COAA or Energy Safety Canada.

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Canadian Model for Providing a Safe Workplace
A best practice guide

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INTRODUCTION

The purpose of the Canadian Model for Providing a Safe Workplace (Canadian Model) is to contribute to a safe workplace for all workers by reducing the risks associated with the inappropriate use of alcohol and drugs. It is a best practice alcohol and drug policy that stakeholders across Canada can adopt and follow as an integral part of an overall safety and loss management policy. The Canadian Model aims to articulate minimum industry expectations for a safe workplace, while recognizing that some companies may require higher or alternative standards based on the specific nature of their operations.

This Canadian Model can also be used as a tool for improving safety through education and personal commitment. Awareness training for management, labour providers, bargaining agents, supervisors and workers is key to ensuring commonality and clarity across sites. Mentoring relationships between more experienced and less experienced companies will maximize the effectiveness of this model policy and make safer workplaces for all.

The Canadian Model is about people – primarily, protecting workers and the public against safety risks. It is also about doing the right thing in the right way, respecting the dignity and privacy of workers, and striving to assist individuals who are afflicted by substance abuse disorders.

In 2017, after many years of promoting similar alcohol and drug policies, the Construction Owners Association of Alberta (COAA) and Energy Safety Canada partnered to develop a common approach. This Version 6 of the Canadian Model, which is the result of their collaboration, now applies uniformly to the Canadian construction and maintenance sector and the oil and gas sector. COAA and Energy Safety Canada gratefully acknowledge the forward-thinking industry leaders and dedicated stakeholder representatives who worked diligently to realize this vision.

ALCOHOL AND DRUG GUIDELINES

In the Canadian construction and maintenance industries and the oil and gas industry, a strong commitment exists to ensure all employees are provided with a safe, healthy and respectful workplace. This commitment extends to the safety of contractors and the general public.

The inappropriate use of alcohol and drugs can have serious adverse effects on the safety and well-being of employees, contractors and the public. Awareness of the potential risks associated with the use of alcohol and drugs is a vital first step in providing a safe, healthy and reliable workplace.

The objective of the following alcohol and drug guidelines and the alcohol and drug work rule is to address risks (safety, health, environmental and operational incidents) to which alcohol and drug use may be a contributing factor.

Alcohol and drug work rule

The alcohol and drug work rule, with which employees are expected to comply for the common good of all, is specified in section 3.0 of the alcohol and drug policy. It is a straightforward expectation:

- Do not use, possess or sell alcohol or drugs on company workplaces, and
- Do not report or work on the work site if concentrations of alcohol or drugs exceed the cut-off limits specified in the policy.

For the full and binding alcohol and drug work rule, please refer to section 3.0 of the alcohol and drug policy.

Roles and responsibilities

The successful implementation of these guidelines and the alcohol and drug work rule is the shared responsibility of owner companies, contractors, workers and labour providers.

Workers must:

- Have an understanding of the alcohol and drug work rule
- Take responsibility for ensuring their own safety and the safety of others

- Ensure they comply with work standards as part of their obligation to perform work activities in a safe manner
- Comply with the alcohol and drug work rule and follow appropriate treatment if deemed necessary
- Use medications responsibly, be aware of potential side effects and notify their supervisor of any potential unsafe side effects where applicable, and
- Encourage their peers or co-workers to seek help before there is a potential breach or breach of policy.

Supervisors or leaders must:

- Be knowledgeable about and comply with the company's alcohol and drug work rule and procedures
- Ensure they comply with work standards as part of their responsibility to perform their work-related activities in an effective and safe manner
- Be knowledgeable about the use of alcohol and drugs and be able to recognize the symptoms of the use of alcohol and drugs
- Understand their company's performance management policy and how this Canadian Model is integral to that policy
- Take action on performance deviations
- Take action on reported or suspected alcohol or drug use by workers, and
- Complete supervisor awareness training in accordance with the minimum criteria set by the United States Department of Transportation (U.S. DOT) – Employer Guidelines.

Owners and contractors must:

- Provide a safe workplace
- Provide prevention programs that emphasize awareness, education and training with respect to the use of alcohol and drugs
- Ensure the guidelines and the alcohol and drug work rule support other performance management systems
- Ensure effective employee assistance services are available to workers
- Assist workers in obtaining confidential assessment, counselling, referral and rehabilitation services

- Actively support and encourage rehabilitation activities and re-employment opportunities where applicable
- Provide supervisory training and awareness in dealing with the use of alcohol and drugs in the workplace in accordance with the minimum criteria set by the U.S. DOT – Employer Guidelines
- Participate with unions, worker associations and employers’ organizations to assist in the provision of rehabilitating opportunities for persons who have problems with the use of alcohol and drugs
- Ensure that all employees understand the existence of and content of the guidelines and the alcohol and drug work rule as part of the employee’s orientation to that company
- Ensure that the alcohol and drug testing is performed according to the standards set out in this document, and
- Decide which form of drug testing (urinalysis or oral fluid analysis) works in the context of their own work environment. Urinalysis is contemplated for all forms of drug testing in the Canadian Model. Oral fluid analysis is contemplated only for those forms of drug testing set out in section 4.8.2.

Unions, employer organizations, and worker associations must:

- Communicate the alcohol and drug work rule to their members
- Support effective implementation of these guidelines
- Participate in ongoing review and appropriate amendments of these guidelines
- Ensure employee assistance services are identified or in place for members, and
- Educate the workforce about the risks associated with the use of alcohol and drugs and promote treatment programs.

The Construction Owners Association of Alberta and Energy Safety Canada, in partnership, must:

- Assume ownership of these guidelines and the alcohol and drug work rule
- Ensure that reviews and amendments are made in a timely manner with input from interested and appropriate stakeholders, and
- Post the master copy of the Canadian Model for Providing a Safe Workplace on their respective websites (coaa.ab.ca and EnergySafetyCanada.com).

Education and awareness

COAA, Energy Safety Canada and their member companies recognize the importance of worker awareness and education of work site risks related to the inappropriate use of alcohol or drugs. Education and awareness are considered to be the principal methods of gaining commitment to and compliance with these guidelines and reducing workplace health and safety concerns associated with non-compliance.

Comprehensive education resources have been designed as part of the Canadian Model to create awareness and enhance understanding. These resources include alcohol and drug awareness for employers, supervisors and workers. As well, a variety of service providers are available to companies and to employees through employee and family assistance programs, and numerous effective third-party resources are available online.

For more information on available education resources, including those developed as part of the Canadian Model, visit coaa.ab.ca and EnergySafetyCanada.com.

MODEL ALCOHOL AND DRUG POLICY

General note: A number of terms have been assigned specific meanings in the Canadian Model. Please refer to section 6.0 for definitions.

1.0 Guideline for applying the policy

In applying this policy, employers should clearly articulate, and update from time to time, the following:

- Where the policy will apply, in specific terms, including any on-site and off-site application, or in any personal or other vehicles
- When this policy will be in effect, including any pre- and post-workday application, or to social events both during or outside of the workday
- To whom the policy will apply, in terms of specific groups and classifications and occupations
- Who will be the employer representative(s) for the purposes of contacting for consultations in respect to the application and administration of the policy, and how they can be contacted
- Who will be the designated employer representative(s) for the purposes of receiving and protecting information issued pursuant to the policy, such as test results
- What, if any, related rules or requirements will be in effect, supplementary to or in addition to the provisions of this policy
- How the services of the employee assistance program can be accessed
- What education and information will be available to supervisors and other employees.

This information, and the contents of this policy, should be readily available to every employee to whom this policy will apply.

2.0 Key elements of an alcohol and drug policy

An alcohol and drug policy is established:

- (a) To provide a safe workplace for all employees and those whose safety may be affected by the conduct of employees, and
- (b) To ensure that all employees are treated fairly and with respect.

- 2.1** The use of alcohol and drugs adversely affects the ability of a person to work in a safe manner. Employees at company workplaces are often working independently or with equipment or material in an environment that poses a threat to the safety of themselves, the workforce, the workplace and the property at the workplace, if handled without proper care and attention.

In setting the requirements in the alcohol and drug work rule, it is acknowledged that assessments of risks relating to work activities, equipment and processes may lead to a company workplace adopting more rigorous requirements in relation to the risks faced in particular work.

This policy will remind employees of the risks associated with the use of alcohol and other drugs and provide understandable and predictable responses when an employee's conduct jeopardizes the safety of the workplace.

- 2.2** By developing an alcohol and drug policy, the employer promotes:

- (a) The safety and dignity of its employees,
- (b) The welfare of its employees and their families,
- (c) Protection of the environment, and
- (d) The best interests of the employer, the owner, industry stakeholders and the public.

- 2.3** There are no other reasonable alternatives available to the employer that impose a smaller burden on any rights an employee may have under the *Alberta Human Rights Act* and at the same time are equally as effective in promoting the purposes of this alcohol and drug policy.

2.4 Safety-sensitive and risk-sensitive positions

The tasks and environments relative to those employed in construction and maintenance work are safety-sensitive/risk-sensitive. The activity of driving for work-related purposes is deemed to be safety-sensitive, whether on or off a work site. All other tasks and environments must be evaluated using Appendix C or equivalent methodology to identify safety-sensitive/risk-sensitive positions.

3.0 Alcohol and drug work rule

3.1 An employee shall not:

- (a) While at a company workplace or work site, use, possess or offer for sale
 - (i) Alcohol,
 - (ii) Drugs other than those permitted under section 3.2, or
 - (iii) Any product or device that could tamper with any sample for an alcohol or drug test.
- (b) Report to work or work
 - (i) With an alcohol level equal to or in excess of 0.04 grams per 210 litres of breath,
 - (ii) With a drug level equal to or in excess of the concentrations of the drugs set out in Tables 1 and 2 where a medical review officer has verified the results as a positive test result (e.g. no legitimate medical explanation), or
 - (iii) While the employee's ability to safely perform his or her duties is adversely affected because of the use of alcohol and/or drugs, whether prescription drugs or non-prescription drugs, lawful or unlawful.
- (c) Refuse to
 - (i) Comply with a request made by a representative of the employer under section 4.3,
 - (ii) Comply with a request to submit to an alcohol and drug test made under sections 4.4, 4.5, 4.6 or 4.7, or
 - (iii) Comply with a request to submit to an alcohol or drug test made under section 4.8.

- (d) Tamper with a sample for an alcohol or drug test.

3.2 An employee complies with section 3.1(a) or 3.1(b)(iii) of the alcohol and drug work rule if he or she is in possession while at a company workplace of a prescription drug prescribed for him or her or a non-prescription drug and

- (a) The use of the prescription or non-prescription drug does not adversely affect the employee's ability to safely perform his or her duties, and the employee is using the prescription or non-prescription drug for its intended purpose and in the manner directed by the employee's physician or pharmacist or the manufacturer of the drug, or
- (b) There are potentially unsafe side effects associated with the use of the prescription or non-prescription drug, and the employee has notified his or her supervisor or manager before starting work of any potentially unsafe side effects, and the employee complies with conditions and limitations set by the employer respecting the possession and use of the drug before reporting to or being at the company workplace or work site.

3.3 Disclosure of information

The supervisor or manager who has received a notification under section 3.2 may not disclose any information provided under section 3.2 to any person other than a person who needs to know, to discharge a statutory or common-law obligation.

Table 1 Urine drug concentration limits

Drugs or classes of drugs	Screening concentration equal to or in excess of ng/mL	Confirmation concentration equal to or in excess of ng/mL
Marijuana metabolite	50	15
Cocaine metabolite	150	100
Opioids		
- Codeine	2000	2000
- Morphine	2000	2000
- Hydrocodone	300	100
- Hydromorphone	300	100
- Oxycodone	100	100
- Oxymorphone	100	100
6-Acetylmorphine	10	10
Phencyclidine	25	25
Amphetamines	500	—
- Amphetamine	—	250
- Methamphetamine	—	250
- MDMA ¹	500	250
- MDA ²	—	250

Source: U.S. Department of Transportation, Rule 49 CFR Part 40, January 1, 2018.

1. Methylenedioxymethamphetamine
2. Methylenedioxyamphetamine

Table 2 Oral fluid drug concentration limits

Drugs or classes of drugs	Screening concentration equal to or in excess of ng/mL	Confirmation concentration equal to or in excess of ng/mL
Marijuana (THC)	4	2
Cocaine metabolite	20	—
– Cocaine or Benzoylecgonine	—	8
Opioids	40	—
- Codeine	—	40
- Morphine	—	40
- Hydrocodone	—	40
- Hydromorphone	—	40
- Oxycodone	—	40
- Oxymorphone	—	40
6-Acetylmorphine	—	4
Phencyclidine	10	10
Amphetamines	50	—
- Amphetamine	—	50
- Methamphetamine	—	50
- MDMA ¹	—	50
- MDA ²	—	50

Source: COAA and Energy Safety Canada, 2018.

1. Methylenedioxymethamphetamine
2. Methylenedioxyamphetamine

4.0 Implementation of the alcohol and drug work rule

4.1 Education

4.1.1 An employer must inform its employees of the existence of its alcohol and drug policy and take reasonable steps to inform its employees of:

- (a) The safety risks associated with the use of alcohol and drugs,
- (b) General education and awareness resources, and
- (c) The assistance available under an employee assistance program (EAP).

4.1.2 The likelihood that an employee will comply with the alcohol and drug work rule is increased if he or she knows the safety risks associated with the use of alcohol and drugs, as well as the assistance available under an EAP.

4.2 Self-help

4.2.1 This policy encourages employees who believe they may require the help provided by substance abuse experts (SAEs) and EAPs to voluntarily request that help. An employee requesting help will not be disciplined unless he or she:

- (a) Has failed to comply with the alcohol and drug work rule,
- (b) Has been requested to confirm compliance with the alcohol and drug work rule under section 4.3,
- (c) Has been requested to submit to an alcohol and drug work test under section 4.4, 4.6 or 4.7, or
- (d) Has been involved in an incident referred to in section 4.5.

4.2.2 An employee who believes that he or she may be unable to comply with the alcohol and drug work rule must seek help by taking such steps as are necessary to ensure that he or she presents no safety risk to himself or herself or to others at the workplace, and:

- (a) Contact a qualified SAE or a person responsible for the administration of an EAP, and where such services are not readily available, a medical doctor with knowledge in substance abuse disorders,
- (b) Inform a family member or friend and asking for assistance in contacting a person responsible for the administration of an EAP, or
- (c) Inform a co-worker, a supervisor or a representative of the company to which the employee may belong, of their wish to contact a person responsible for the administration of an EAP.

4.2.3 In responding to an employee's request for help, a co-worker must inform a person in authority of the request.

4.2.4 In responding to an employee's request for help, a foreman, supervisor or manager must:

- (a) Take such steps as are necessary to ensure that the employee is fit for duty and presents no risk to himself or herself or to others at the company workplace, and
- (b) Inform the employee of the assistance available under an EAP, and
- (c) Encourage the employee to utilize an EAP, which may assist the employee, and

- (d) Inform the employee that if he or she fails to utilize the EAP program the employer may insist that the employee submit to any or all of the following:
- (i) A medical assessment conducted by a medical doctor with knowledge in substance abuse disorders,
 - (ii) Alcohol and drug testing as set out in section 4.8,
 - (iii) An assessment conducted by an SAE,

and he or she must provide confirmation to the employer that he or she submitted to (i), (ii) and/or (iii) above, and that his or her failure to submit to (i), (ii) and/or (iii) above may result in the termination of his or her employment.

4.2.5 A person providing assistance under an EAP in respect to an employee's use of alcohol or drugs, including a case manager, shall advise the employee that should he or she become aware of a failure of the employee to comply with the terms and conditions of a program established to help the employee and/or that the employee presents a serious and imminent risk to himself or herself or to others at the company workplace, he or she must inform the employer of the failure to comply with the terms and conditions and/or of the safety risk.

4.2.6 An employee who receives assistance from the EAP on account of his or her use of alcohol and drugs must comply with the terms and conditions of any program established to help the employee as a condition of his or her continued employment.

4.2.7 An employee who is at work and has sought assistance or enrolled in an EAP must comply with section 3.0.

4.3 Possession of alcohol and drugs

4.3.1 A supervisor or manager of an employee who has reasonable grounds to believe the employee may not be in compliance with section 3.1(a), must request

- (a) That the employee confirm whether he or she is in compliance with section 3.1(a), or
- (b) The assistance of appropriate authorities to confirm the employee's compliance with section 3.1(a).

4.3.2 A supervisor or manager of the employee must provide to the employee the reason for the request under section 4.3.1.

4.4 Reasonable grounds testing

4.4.1 If the supervisor or manager has reasonable grounds to believe that an employee is or may be unable to work in a safe manner because of the use of alcohol or drugs, then the supervisor or manager of that employee must request that he or she submit to alcohol and drug testing under section 4.8. In the event that a level of management above this supervisor or manager is readily available, they must also be included in the decision.

4.4.2 A supervisor or manager of an employee must provide to the employee the reason for the request for testing under section 4.4.1.

4.5 Incident testing

4.5.1 If a supervisor or manager has reasonable grounds to believe that an employee was involved in an incident, then he or she must request that the employee submit to alcohol and drug testing under section 4.8. In the event that a level of management above this supervisor or manager is readily available, they must also be included in the decision.

4.5.2 A supervisor or manager of an employee must provide the employee with the reason for the request under section 4.5.1.

4.5.3 A supervisor or manager must make a request under section 4.8 as soon as reasonably practicable following an incident.

4.5.4 If the supervisor or manager concludes that there is objective evidence to believe that the use of alcohol or drugs did not contribute to the cause of the incident, then he or she need not request that the employee submit to alcohol and drug testing. In the event that a level of management above this supervisor or manager is readily available, they must also be included in the decision.

4.6 Random testing

4.6.1 At any work site where the employer has confirmed in writing that each employee engaged in safety-sensitive work is covered by an EAP, the employer may implement a lawful computer-generated random alcohol and drug testing program in accordance with the procedures set out in the United States Department of Transportation (U.S. DOT) Workplace Drug and Alcohol Testing Programs in force as of the date of this publication. In the event a lawful random alcohol and drug testing program is to be adopted by an employer, a written notice shall be delivered to each employee and a written notice shall be provided to any bargaining agent of affected employees of the implementation of random alcohol and drug testing at least 30 days prior to implementation of that program at the work site. Such notice shall outline the basic provision of the random alcohol and drug testing program.

4.6.2 Where an owner directly or by contract requires random alcohol and drug testing, such a random testing program must be applicable to all employers and safety-sensitive employees at the work site, to whom it can lawfully apply.

4.7 Site-access testing

When an owner directly or by contract requires site-access testing, an employer may require alcohol and drug testing under section 4.8 of any employee as a condition of access to the owner's property.

4.8 Requirements for alcohol and drug testing programs

4.8.1 Laboratory standards – Urine drug testing

Employers must retain a laboratory, as defined in this policy, to conduct urine drug testing under section 4.8 in accordance with those parts of the U.S. DOT Workplace Drug and Alcohol Testing Programs in force as of the date of this publication, which relate to testing procedures in laboratories. For screening purposes, a laboratory certified by the United States Department of Health and Human Services is permitted to test samples under this policy. Additionally, the employer agrees to have alcohol testing under section 4.8 conducted by personnel in accordance with the above standards and procedures as they relate to alcohol testing.

4.8.2 Laboratory standards – Oral fluid testing

Employers must retain a laboratory, as defined in this policy, to conduct oral fluid testing under section 4.8. Oral fluid testing may be permitted for incident (post-incident) testing, observation of employee conduct (reasonable cause) and random testing. Oral fluid testing is not permitted for site access or any testing that is included in conditions established pursuant to sections 5.2.2(b) and 5.4.2.

4.8.3 A summary of the features of the alcohol and drug tests is set out in Appendix A of this alcohol and drug policy.

4.8.4 Employee acceptance of alcohol and drug policy

By continuing his or her employment with the company the employee accepts the terms of this alcohol and drug policy and authorizes the laboratory to provide the test results to the employer or any person with legal authority to require the disclosure of the test results, subject to section 4.9.6. Further, the employee authorizes the medical review officer or the employer to provide the test results to a substance abuse expert or program case manager to whom the employee has been referred under the provisions of this policy.

4.8.5 Point of collection tests (POCT)

Notwithstanding sections 4.8.1 through 4.8.4 and Appendix A, if a test is requested pursuant to section 4.4 (reasonable grounds) or section 4.5 (incident), the employer may use a point of collection test (POCT) as one of a number of options for assessing the risk of having the employee return to work, pending the medical review officer's report on the oral or urine-based lab test. A POCT device used for this purpose must have Health Canada approval, must be intended for urine assessment only, and must be calibrated to the extent possible with the urine cut-off levels in section 3.1(b)(ii). Only collection personnel trained to U.S. DOT standards shall administer the POCT. Such collection personnel must comply with standard operating procedures that must, at a minimum, address chain of custody and quality control. Irrespective of whether this risk assessment option is used, a test must be completed in accordance with sections 4.8.1 through 4.8.4.

4.9 Alcohol and drug testing results

4.9.1 Alcohol and drug test results can be negative, positive, refusal to test or cancelled with additional comments as required. A negative test result means the employee is in compliance, a positive test result means non-compliance, a refusal to test result means non-compliance, and a cancelled test result cannot be relied upon to determine compliance or non-compliance. All test results will be provided in a confidential written report from the medical review officer to the designated employer representative with explanation and direction when required.

4.9.2 Negative test result

A report from the medical review officer to the designated employer representative that the employee's sample produced a negative test result without an advisory means that the employee complied with section 3.1(b). The designated employer representative must notify the employee of the negative test result and that no other steps under the employer's alcohol and drug policy will be taken. If a safety advisory is issued by a medical review officer, then a fitness-for-work assessment should be conducted to ensure the safety of the employee and others at the company workplace, and because there may have been a failure to comply with section 3.2. It may be appropriate to pursue procedures under other policies or take other steps, including a medical assessment, in order to assist the employee to perform at a satisfactory level.

4.9.3 Positive test result

A confidential written report from the medical review officer to the designated employer representative that the employee's sample produced a positive test result means that the employee failed to comply with section 3.1(b) of the alcohol and drug work rule.

4.9.4 Refusal to test

A confidential written report from the medical review officer to the designated employer representative that the employee has refused to test means that the employee failed to comply with section 3.1(c) of the alcohol and drug work rule.

4.9.5 Cancelled sample

A confidential written report from the medical review officer to the designated employer representative that the sample is cancelled means that the test cannot be relied upon for the purposes of this alcohol and drug work rule.

4.9.6 Disclosure of results

In order to preserve the confidentiality of test results, the designated employer representative and any person to whom disclosure is permitted under the employer's alcohol and drug policy must not disclose the test results to any person other than a person who needs to know the test results to discharge an obligation under the employer's application of this alcohol and drug policy.

4.10 Assistance of a representative

4.10.1 When applicable, a representative of a bargaining agent or labour provider of which an employee is a member and with whom the employer has a bargaining relationship may assist the employee with any matter arising under this alcohol and drug policy if the employee wishes to have the assistance of a representative.

4.10.2 When applicable, a representative of a bargaining agent or labour provider of which an employee is a member and with whom the employer has a bargaining relationship, may attend any meeting or discussion that takes place under this alcohol and drug policy if the employee wishes the representative to attend and the attendance of the representative does not unduly delay the time at which the meeting or discussion takes place.

5.0 Consequences of failure to comply with the alcohol and drug work rule

5.1 Employer responses to violations

An employer may discipline an employee who fails to comply with section 3.0. Discipline may include a variety of reasonable measures, up to and including termination for cause. Determination of the appropriate disciplinary measure will depend on the facts of each case, including the nature of the violation, the existence of prior violations, the response to prior corrective programs, the seriousness of the violation, and the objective of deterring any future violations by the employee or others in the company workplace.

5.2 Violation of section 3.1(b) of the alcohol and drug work rule

5.2.1 Prior to the employer making a final decision with regard to disciplining or terminating the employment of an employee who has failed to comply with section 3.1(b) of the alcohol and drug work rule, the employer shall direct the employee to and the employee shall meet with an SAE. The SAE shall make an initial assessment of the employee and make appropriate recommendations.

The assessment by the SAE shall be applied utilizing the processes and approaches set out in Appendix B. The employee shall, through the SAE, provide to the employer a confidential report of his or her initial assessment and recommendations. The employer then shall make the final decision under section 5.1.

The initial assessment is to be completed as soon as possible, and the report shall be delivered to the employer within two days of completion of the report. Failure by the employee to attend the assessment or follow the course of corrective or rehabilitation action may be cause for discipline, up to and including termination of employment. During the period of assessment and corrective rehabilitative programs recommended by the SAE, the employee shall be deemed to be on unpaid leave.

5.2.2 In addition to disciplining or terminating for cause the employment of an employee who fails to comply with section 3.1(b) of the alcohol and drug work rule, the employer may give written notice to that person that the person will not be re-employed again by the employer unless the person provides the employer with the following:

- (a) A certificate issued
 - (i) By the treatment program service provider certifying that the person who was terminated has successfully completed its rehabilitation program and continues to comply with all the requirements of the rehabilitation program, or
 - (ii) By a licensed physician with knowledge of substance abuse disorders certifying that the person who was terminated is able to safely perform the duties he or she will be required to perform if employed by the company, or
 - (iii) By an SAE or program case manager, and

- (b) A statement signed by the person and, if represented by a bargaining agent or labour provider, by the bargaining agent or labour provider acknowledging that the person agrees to any conditions imposed as part of a corrective rehabilitative program and such other reasonable conditions set by the employer. The employer may terminate the employment of the employee who fails to comply with the conditions set out in such statement.

5.3 Violation of sections 3.1 (a), (c), or (d)

If a company decides to discipline or terminate for cause the employment of an employee who fails to comply with sections 3.1(a) or (c) or (d) of the alcohol and drug work rule, the employer shall refer such employee to an SAE and shall notify the bargaining agent or labour provider, if the employee has one, of such referral.

5.4 Owner responses to violations

5.4.1 The owner of a site where a person was working when he or she failed to comply with the alcohol and drug work rule may give the person who failed to comply with the alcohol and drug work rule written notice that he or she shall not enter the owner's site.

5.4.2 The owner of a site where a person was working when he or she failed to comply with the alcohol and drug work rule may give that person who has been denied permission to enter its site under section 5.4.1 written notice that the person may enter the owner's site if

- (a) A company engaged in work at the owner's site, or
- (b) The bargaining agent or labour provider of that person, if the person is represented by a bargaining agent or labour provider, or

- (c) A company engaged in work at the owner's site and the bargaining agent or labour provider of that person

provides the owner with a written statement by the person who has been denied permission to enter the owner's work site under section 5.4.1 acknowledging that that person agrees to reasonable conditions imposed by the owner or the contractor or the bargaining agent or labour provider or a part of a corrective or rehabilitative program.

5.4.3 The owner may withdraw permission given under section 5.4.2 if the person given permission to enter the owner's work site under section 5.4.2 fails to comply with the alcohol and drug work rule or any condition imposed under section 5.4.2.

5.4.4 The owner is not obliged to give a person who has been denied permission to enter the owner's site under section 5.4.3 another opportunity to work on the owner's site.

5.5 Bargaining agent or labour provider responses to violations

A bargaining agent or labour provider shall decline to dispatch a person to a company until that organization has reviewed the initial assessment, referred to in section 5.2 or 5.3, and until the conditions set out therein for the person have been met.

6.0 Definitions

In this alcohol and drug policy, the following definitions apply:

- (a) **Alcohol:** Any substance that may be consumed and that has an alcoholic content in excess of 0.5 per cent by volume.
- (b) **Alcohol and drugs:** Alcohol or drugs or both.
- (c) **Alcohol and drug test:** A test administered in accordance with section 4.8 of this policy.
- (d) **Alcohol and drug work rule:** The alcohol and drug work rule set out in section 3.0 of this policy.
- (e) **Case manager:** A professional with training, knowledge and experience in case management and substance abuse disorders. The case manager facilitates and confirms compliance with treatment recommendations, and provides supportive and objective case management services, including aftercare and return-to-work conditions recommended by the substance abuse expert, to support the worker and maintain the safety of the worker and those around him or her on a safety-sensitive work site.
- (f) **Company:** A corporation, partnership, sole proprietorship, association, joint venture, trust or organizational group of persons, whether incorporated or not.
- (g) **Company workplace:** Includes all real or personal property, facilities, land, buildings, equipment, containers, vehicles, vessels, boats, and aircraft whether owned, leased or used by the company and wherever it may be located.
- (h) **Drug paraphernalia:** Includes any personal property that is associated with the use of any drug, substance, chemical or agent the possession of which is unlawful in Canada, or the use of which is regulated by legislation such as marijuana/ cannabis.

- (i) **Drugs:** Includes any substance, chemical or agent the use or possession of which is unlawful in Canada or requires a personal prescription or authorization from a licensed treating physician, or the use of which is regulated by legislation such as marijuana/cannabis, or any other psychoactive substance, and any non-prescription medication lawfully sold in Canada, and drug paraphernalia.
- (j) **Employee:** Any person engaged by an employer in work on a work site where this policy applies.
- (k) **Employee assistance program (EAP):** Services that are designed to help employees who are experiencing personal problems such as alcohol and drug abuse. Also includes an employee and family assistance plan (EFAP).
- (l) **Employer:** A person who is in a direct employment contract relationship with an employee (including where such employee is represented by a bargaining agent) and is responsible for the specific direction and control of the work performed by that employee. Establishing site-access and site-specific requirements do not make an owner an employer. On any work site where the employer is not a prime contractor as contemplated by occupational health and safety legislation, this definition of employer specifically excludes any prime contractor on the work site, including the owner of such work site.
- (m) **Incident:** An occurrence, circumstance, condition or near miss that caused or had the potential to cause damage to person, property, reputation, security or the environment.
- (n) **Laboratory:** A laboratory providing urine-based drug testing services or oral fluid-based testing services must be certified by the United States Department of Health and Human Services under the National Laboratory Certification Program. A laboratory providing oral fluid-based drug testing services must ensure that the oral fluid-based testing be performed in such a manner that
- Acceptable forensic practices and quality systems are maintained,
 - Specimen validity testing is deployed,
 - Regular independent audits occur, and
 - Proficiency test samples are included.
- (o) **Manager:** Includes team leaders and other persons in authority.
- (p) **Medical review officer (MRO):** A licensed physician, currently certified with the American Association of Medical Review Officers or Medical Review Officer Certification Council, with knowledge of substance abuse disorders and the ability to evaluate an employee's test results, who is responsible for receiving and reviewing laboratory results generated by an employer's drug testing program and evaluating medical explanations for certain drug test results.
- (q) **Negative test result:** A report from the medical review officer that the employee who provided the specimen for alcohol and drug testing (laboratory-based) was not in violation of section 3.1(b).
- (r) **Non-prescription drugs:** Drugs that can be lawfully purchased without a prescription.
- (s) **Owner:** The person in legal possession of a work site, or their delegate that controls activity on the work site (e.g. another person acting as operator, licensee, leaseholder or prime contractor).

- (t) **Positive test result:** A report from the medical review officer that the employee who provided a specimen for alcohol and drug testing (laboratory-based) did have an alcohol and drug concentration level equal to or in excess of that set out in section 3.1(b).
- (u) **Prescription drugs:** Drugs that can only be obtained with a prescription from a registered health care professional licensed to prescribe drugs. Prescription drugs must be made out to a specific individual, have a drug identification number and be dispensed by a licensed pharmacist.
- (v) **Reasonable grounds:** Includes information established by the direct observation of the employee's conduct or other indicators, such as the physical appearance and behaviour of the employee, the smell associated with the use of alcohol or drugs on his or her person or in the vicinity of his or her person, his or her attendance record or unexplained absences during regular work hours, circumstances surrounding an incident or near miss and the presence of alcohol, drugs or drug paraphernalia in the vicinity of the employee or the area where the employee worked.
- (w) **Rehabilitation program:** A program tailored to the needs of an individual, which may include education, counselling and residential care, offered to assist a person to comply with the alcohol and drug work rule.
- (x) **Risk-sensitive position:** A position or class of positions identified by the employer pursuant to section 2.4 and articulated as per section 1.0, normally remote from a work site but that has authority to direct safety-sensitive employees or make potentially high-consequence decisions within a hazardous work site, to which this policy shall apply in order to manage the safety risks of breaching the work rule outlined in section 3.0. See also safety-sensitive position.
- (y) **Safety-sensitive position:** A position or class of positions identified by the employer pursuant to section 2.4 and articulated as per section 1.0, that normally work with a hazardous work site, to which this policy shall apply in order to manage the safety risks of breaching the work rule outlined in section 3.0. See also risk-sensitive position.
- (z) **Substance abuse expert (SAE):** A licensed physician, a licensed or certified social worker, a licensed or certified psychologist, a licensed or certified employee assistance expert, or an alcohol and drug abuse counsellor. He or she has received training specific to the SAE roles and responsibilities, has knowledge of and clinical experience in the diagnosis and treatment of substance abuse-related disorders, and has an understanding of the safety implications of substance use and abuse.
- (aa) **Supervisor:** The person who directs the work of others and may, depending on the nature of the company's structure, include the foreman, general foreman, supervisor, superintendent or team leader.
- (bb) **Tamper:** To alter, meddle, interfere, substitute or change.
- (cc) **Work:** Includes the application of labour and/or trades and professional skills, as well as breaks, meetings and training while at a work site or company workplace.
- (dd) **Work site:** A place at which a person performs work for an owner or employer.

APPENDIX A – ALCOHOL AND DRUG TESTING PROCEDURES

The following procedures are a general overview only. For more detailed information, contact your testing provider.

General caution – Employers must be aware that the timing of tests can substantially affect the relevance of the results.

A-1 Alcohol testing

General

1. The donor is the person from whom a breath or oral fluid sample is collected.
2. The donor is informed of the requirement to test in private and is directed to go to a collection site for the purpose of providing a breath or oral fluid specimen. The donor must be escorted to the collection site if the test is for post-incident or reasonable cause purposes. An escort may be provided for random or followup testing if required by the site or program.
3. The breath alcohol technician (BAT) or the screening test technician (STT), as appropriate, establishes the identity of the donor. Government or employer-issued photo identification is preferable. Positive identification by a company representative who holds a supervisory position is acceptable.
4. The BAT or STT, as appropriate, explains the testing procedure to the donor.
5. The company must securely store information about alcohol test results to ensure that disclosure to unauthorized persons does not occur.
6. Breath testing and oral fluid testing devices used to conduct alcohol screening tests must be listed on the National Highway Traffic Safety Administration's (NHTSA) conforming products lists, either the list for screening devices or the list for evidentiary devices. They must also meet the functional

requirements outlined in the United States Department of Transportation (U.S. DOT) rules and regulations, which be found at: [transportation.gov/odapc](https://www.transportation.gov/odapc).

Breath testing

1. The BAT and the donor complete those parts of the alcohol testing form that are to be completed before the donor provides a breath sample.
2. The BAT or STT ensures the donor does not have anything in his or her mouth (e.g. gum, candy or chewing tobacco).
3. The BAT opens an individually wrapped or sealed mouthpiece in the presence of the donor and attaches it to the breath testing device in the prescribed manner.
4. The BAT explains to the donor how to provide a breath sample and asks the donor to provide a breath sample.
5. The BAT reads the test result and, after showing the results to the donor, ensures that the test result is recorded on the alcohol testing form.
6. After the donor provides a breath sample, the BAT completes the part of the alcohol testing form that is to be completed after the test and asks the donor to do so as well.
7. If the test result shows an alcohol level that is less than 0.020 grams per 210 litres of breath, the BAT informs the donor that there is no need to conduct any further alcohol testing and reports the result in a confidential manner to the designated employer representative. While the initial communication need not be in writing, the BAT must subsequently provide a written report of the test result to the designated employer representative.
8. If the test result shows an alcohol level that is equal to or greater than 0.020 grams per 210 litres of breath, the BAT informs the donor of the need to conduct a confirmation test.

Oral fluid testing

1. The STT and the donor complete those parts of the alcohol testing form that are to be completed before the donor provides a sample.
2. The BAT or STT ensures the donor does not have anything in his or her mouth (e.g. gum, candy or chewing tobacco).
3. The STT checks the expiration date of the oral fluid testing device, shows the date to the employee, and uses the oral fluid testing device only if the expiration date has not passed.
4. The STT opens an individually wrapped or sealed package containing the oral fluid testing device in the presence of the donor.
5. The STT invites the donor to insert the oral fluid testing device into the donor's mouth for the time it takes to secure a proper specimen.
6. The STT reads the result the oral fluid testing device produces and, after showing the results to the donor, records the test result on the alcohol testing form.
7. After the donor provides an oral fluid sample, the STT completes the part of the alcohol testing form that is to be completed and asks the donor to do so as well.
8. If the test result shows an alcohol level that is less than 0.020 grams of alcohol per 100 millilitres of oral fluid or an equivalent concentration in other units, the STT informs the donor that there is no need to conduct any further alcohol testing and reports the result in a confidential manner to the designated employer representative. While the initial communication need not be in writing, the STT must subsequently provide a written report of the test results to the designated employer representative.
9. If the test result shows an alcohol level that is equal to or greater than 0.020 grams of alcohol per 100 millilitres of oral fluid or an equivalent concentration in other units, the

STT informs the donor of the need to conduct a confirmation test.

Confirmation test

1. All screening tests with results at or above 0.020 must be confirmed using an evidential breath alcohol testing device.
2. The BAT or STT advises the donor not to eat, drink, smoke, put anything into his or her mouth, or belch before the confirmation test is complete.
3. The confirmation test must start not less than 15 minutes after the completion of the screening test. If the confirmation test cannot begin within 30 minutes, the confirmation test must still be conducted, and the elapsed time and the reason must be documented on the alcohol testing form.
4. The BAT and the donor complete those parts of the alcohol testing form that are to be completed before the donor provides a breath sample.
5. The BAT opens a new individually wrapped or sealed mouthpiece in the presence of the donor and inserts it into the breath testing device in the prescribed manner.
6. The BAT explains to the donor how to provide a breath sample and asks the donor to provide a breath sample.
7. The BAT reads the test result on the device and shows the donor the result displayed. If the confirmation test result is equal to or in excess of 0.020 grams per 210 litres of breath, the BAT will do an external calibration check (accuracy check) to ensure the device is in working order. The BAT ensures that the test result is recorded on the alcohol testing form. The BAT verifies the printed results with the donor.
8. After the donor provides a breath sample, the BAT completes the part of the alcohol testing form that is to be completed and asks the donor to do so as well.

9. The BAT immediately reports the test results in a confidential manner to the designated employer representative. While the initial communication need not be in writing, the BAT must subsequently provide a written report of the test result to the designated employer representative.

A-2 Drug testing

Urine testing

1. The donor is the person from whom a urine specimen is collected.
2. The donor is informed of the requirement to test in private and is directed to go to a collection site. The donor must be escorted to the collection site if the test is for post-incident or reasonable cause purposes. An escort may be provided for random or followup testing if required by the site or program.
3. The collection site person must establish the identity of the donor. Government or employer-issued photo identification is preferable. Positive identification by a company representative who holds a supervisory position is acceptable.
4. The donor must remove coveralls, jacket, coat, hat or any other outer clothing and leave these garments and any bags or other personal items with the collection site person.
5. The donor must remove any items from his or her pockets and allow the collection site person to inspect them to determine that no items are present that could be used to adulterate a specimen.
6. The donor must give up possession of any item that could be used to adulterate a specimen to the collection site person until the donor has completed the testing process. Clear evidence of an attempt to adulterate or substitute is a refusal to test and ends the collection process.
7. The collection site person may set a reasonable time limit for providing a urine specimen.

8. The collection site person selects or allows the donor to select an individually wrapped or sealed specimen container. Either the collection site person or the donor, in the presence of the other, must unwrap or break the seal of the specimen container.
9. The donor may provide his or her urine specimen in private, in most circumstances. The specimen must contain at least 45 millilitres.
10. In respect of any collection that may be incomplete or determined to be a refusal, the collection site person must promptly document all circumstances and details respecting the collection effort and the reasons it was incomplete.
11. The collection site person determines the volume and temperature of the urine in the specimen container.
12. The collection site person inspects the specimen and notes on the custody and control form any unusual findings.
13. If the temperature of the specimen is outside the acceptable range or there is evidence that the specimen has been tampered with, the donor must provide another specimen under direct observation in accordance with U.S. DOT rules and regulations by the collection site person or another person if the collection site person is not the same gender as the donor.
14. The collection site person splits the urine specimen into two specimen bottles. One bottle is the primary specimen and the other is the split specimen.
15. The collection site person places a tamper-evident bottle seal on each of the specimen bottles and writes the date on the tamper-evident seals.
16. The donor must initial the tamper-evident bottle seals to certify that the bottles contain the urine specimen the donor provided.

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| <p>17. The donor and collection site person complete the custody and control form. The collection site person seals the specimen bottles and the laboratory copy of the custody and control form in a plastic bag.</p> <p>18. The collection site personnel arrange to ship the two specimen bottles to the laboratory as quickly as possible.</p> <p>19. The laboratory must be the holder of a certificate issued by the Substance Abuse and Mental Health Services Administration of the United States Department of Health and Human Services under the National Laboratory Certification Program.</p> <p>20. The laboratory must use chain of custody procedures to maintain control and accountability of urine specimens at all times.</p> <p>21. Laboratory personnel inspect each package along with the enclosed specimens for evidence of possible tampering and note evidence of tampering on the specimen forms.</p> <p>22. Laboratory personnel conduct validity testing to determine whether certain adulterants or foreign substances were added to the urine specimen.</p> <p>23. Laboratory personnel conduct an initial screening test on the primary specimen for the drugs set out in section 3.1 using established immunoassay procedures. No further testing is conducted if the initial screening test produces a negative test result.</p> <p>24. Laboratory personnel conduct a confirmatory test on specimens identified as positive by the initial screening test. The confirmatory test uses approved gas chromatography or liquid chromatography (GC or LC) and mass spectrometry techniques.</p> <p>25. A certifying scientist reviews the test results before certifying the results as an accurate report.</p> | <p>26. The laboratory reports the test results on the primary specimen in confidence to the company's medical review officer (MRO).</p> <p>27. If the laboratory reports a positive, adulterated, substituted or invalid result, the certified MRO attempts to conduct a verification interview with the donor to allow the opportunity for the donor to discuss the results and present a legitimate medical explanation. Once the interview is complete, the MRO shall report to the employer whether the test result is:</p> <ul style="list-style-type: none">• negative• negative with safety advisory• refusal to test and why• cancelled with or without further direction, or• positive. <p>A safety advisory indicates a medical clearance is required prior to performing safety-sensitive duties in accordance with the job description. The company will be advised if a specimen is reported by the laboratory as "dilute."</p> <p>28. An employee who has received notice from the MRO that he or she has tested positive may, within 72 hours of receiving such notice, ask the MRO to direct another laboratory to retest the split specimen. The employer is permitted to seek reimbursement from the employee. This will not delay the reporting of the primary result to the designated employer representative.</p> <p>29. The laboratory reports the test results on the split specimen in confidence to the company's MRO.</p> <p>30. Should the laboratory fail to reconfirm the split specimen results, the MRO will provide direction to the designated employer representative.</p> |
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Oral fluid testing

1. The donor is the person providing their oral fluid for the purposes of a drug test.
2. The donor is informed of the requirement to test in private and is directed to go to a collection site. The donor must be escorted to the collection site if the test is for post-incident or reasonable cause purposes. An escort may be provided for random testing if required by the site or program.
3. The collection site person must establish the identity of the donor. Government or employer-issued photo identification is preferable. Positive identification by a company representative who holds a supervisory position is acceptable.
4. The donor must clear any foreign material from the mouth (e.g. food, gum, tobacco products, lozenges, etc.).
5. The collection site person observes the donor for a minimum of ten (10) minutes prior to providing the specimen. The donor may not eat, drink, smoke or put anything in his or her mouth during the observed waiting period.
6. The collection site person checks and records the lot number and expiration date of the device.
7. In the presence of the collection site person, the donor opens the sealed device and the specimen is collected according to the manufacturer's specification.
8. The collected specimen should be kept in view of the donor and the collection site person at all times prior to it being sealed and labelled for shipment to the laboratory.
9. The collection site person places a tamper-evident seal on the specimen collection device.
10. The collection site person records the date, and has the donor initial the seal on the specimen.
11. The donor and the collection site person complete the custody and control form and seal the specimen and the laboratory copy of the custody and control form in a chain of custody bag. In respect of any collection that may be incomplete or determined to be a refusal, the collection site person must promptly document all circumstances and details respecting the collection effort and the reasons it was incomplete.
12. The collection site personnel arrange to ship the collected specimen device to the laboratory as quickly as possible.
13. The laboratory must be the holder of a certificate issued by the Substance Abuse and Mental Health Services Administration of the United States Department of Health and Human Services under the National Laboratory Certification Program.
14. The laboratory must use chain of custody procedures to maintain control and accountability of specimens at all times.
15. Laboratory personnel inspect the package along with the enclosed specimen for evidence of possible tampering and note evidence of tampering on the specimen forms.
16. Laboratory personnel conduct validity testing to determine the suitability of the specimens.
17. Laboratory personnel conduct an initial screening test on the specimen for the drugs set out in section 3.0 using established immunoassay procedures. No further testing is conducted if the initial screening test produces a negative test result.
18. Laboratory personnel conduct a confirmatory test on specimens identified as positive by the initial screening test. The confirmatory test uses approved GC or LC and mass spectrometry techniques.
19. A certifying scientist reviews the test results before certifying the results as an accurate report.

20. The laboratory reports the test results on the primary specimen in confidence to the company's MRO.
21. If the laboratory reports a positive, adulterated, substituted or invalid result, the certified MRO attempts to conduct a verification interview with the donor to allow the opportunity for the donor to discuss the results and present a legitimate medical explanation. Once the interview is complete, the MRO shall report to the employer whether the test result is:
- negative
 - negative with safety advisory
 - refusal to test and why
 - cancelled with or without further direction, or positive.

A safety advisory indicates a medical clearance is required prior to performing safety-sensitive duties in accordance with the job description.

22. An employee who has received notice from the MRO that he or she has tested positive may, within 72 hours of receiving such notice, ask the MRO to direct another laboratory to retest the specimen. This will not delay the reporting of the primary result to the designated employer representative. The employer is permitted to seek reimbursement from the employee for the cost of the retest.
23. The laboratory reports the results of the retest in confidence to the company's MRO. Should the retest fail to reconfirm the test result, the MRO will provide direction to the designated employer representative. Should there be insufficient volume of remaining specimen to perform the retest, the original test will not be cancelled by the MRO.

APPENDIX B – SUBSTANCE ABUSE EXPERT ASSESSMENTS

The substance abuse expert

The substance abuse expert (SAE) is a person who evaluates the individuals who are seeking to be assessed or who have been referred for an assessment. The SAE is a professional who is qualified to make recommendations regarding the individuals assessed. These recommendations typically involve treatment options such as education, various counselling or inpatient treatment services, followup testing, and the overall general conditions of post-assessment care.

The responsibility and function of the SAE is to apply quality and diligence in the assessment process in order to protect the owner's and the company workplace's safety and health. However, the SAE is not an advocate for any stakeholder in the process beyond the mandate of the assessment. The SAE remains impartial and does not advocate for the employee or employer.

The SAE has the responsibility to function in his or her role as an evaluator of the client's apparent condition. The qualifications to conduct this assessment extend across several types of disciplines in the mental health and medical community.

All SAEs have one aspect in common. Each is a licensed or certified professional who has met the educational, experiential and competency criteria to be in good standing with a professional agency that governs his or her respective discipline.

The SAE providing the assessment evaluation can be a licensed physician, a licensed or certified social worker, a licensed or certified psychologist, a licensed or certified employee assistance expert, or an alcohol and drug abuse counsellor as allowed to diagnose within their respective provincial regulated health professionals, who also has experience or a specialization in the field of addiction.

He or she has received training specific to the SAE roles and responsibilities, has knowledge of and clinical experience in the diagnosis and treatment of substance abuse-related disorders, and has an understanding of the safety implications of substance use and abuse.

The evaluation and assessment

The foundation of sound clinical expertise and well-established standards of practice is the context for each assessment. The evaluation is based on proven and reliable methods of face-to-face clinical interview practices, reliable and valid alcohol and drug abuse assessment tools (also called psychometrics), and quality assurance clinical supervision provided as additional expertise to the SAE. This gives the SAE a consistent level of support for applying his or her clinical abilities toward the best fit and most exact assessment outcome in each particular assessment.

The evaluation can include consultation with a physician specialist in the area of substance use disorders or the medical review officer (MRO) involved with any substance screen results referenced in the assessment. The MRO or medical specialist in substance abuse disorders is contacted only when there is a specific need to discuss the substance screen result per se or if there are potential medical complications involved in a person's history.

The face-to-face interview includes an assessment of all the relevant factors that are known to be essential in the evaluation of individuals with possible substance use disorders. These factors are examined by questions regarding the client's life and family history, employment situation and current mental status. The in-depth interview also explores the individual's alcohol and drug use history. This includes areas such as the substances used and for how long, the episodic trends of substance preferences, emotional and physical characteristics that are considered relevant in substance use, and other factors that can give a comprehensive clinical understanding of the person.

The evaluation will provide a clear statement of the assessment's outcome (the diagnosis), along with treatment recommendations. The recommendations are the basic outline of a treatment plan. The individual is free to add to the treatment recommendations, however, the treatment recommendations are the conditions required for successful return to safety-sensitive work. Therefore, they are the essential ingredients of care that the individual must successfully complete.

The evaluation process provides a signed confidential report to the stakeholders involved in the assessment. These parties can include the bargaining agent, a case manager and the employer, as well as the individual assessed if he or she wishes to receive a copy. The SAE report issued to the person assessed does not include the number of unannounced tests.

The post-assessment referral and treatment

As a result of the evaluation and assessment, the SAE will refer the client to the appropriate contact person, program or case manager involved in the next steps for this person's return to work. Formal case management is considered the best practice approach in order to ensure that the recommendations are completed and adhered to as outlined in the SAE assessment report.

The SAE report and any other relevant information necessary for admission to a treatment program can be forwarded to the appropriate contact personnel. This is done only with client consent to do so.

Followup treatment for counselling or relapse prevention will be provided by an SAE as identified above and as qualified to provide such treatment.

The followup evaluation

The case manager or representative acting in a role that monitors the individual's compliance with the return-to-work process will evaluate the client's compliance with the return-to-work recommendations. The client's compliance will be supported by a written report or personal communication with the respective education and/or treatment program professionals.

The client's ability to successfully demonstrate compliance with the initial treatment recommendations will be determined in a clinically based followup contact. Continued monitoring will ensue to ensure ongoing compliance to the SAE recommendations.

In the event that an individual is demonstrating difficulty in maintaining or complying with stated recommendations in the SAE report, a formal review will take place. The review of the new data is conducted in conjunction with the discussions with the individual and/or treatment program or relevant professionals.

Written communication, often in the form of an amended SAE report, will be issued to address the current situation for the individual. Sometimes, if developments indicate the need, a new assessment will be conducted.

APPENDIX C – GUIDE FOR IDENTIFYING SAFETY- SENSITIVE POSITIONS

The following information is intended to help employers clearly identify safety-sensitive positions. This is critical to ensuring employers effectively meet section 1.0 of the Canadian Model, which stipulates that employers should clearly articulate, and update from time to time, the following:

- Where the policy will apply, in specific terms (including company workplaces, other work sites, company vehicles, other vehicles, etc.)
- When the policy will be in effect (including pre- and post-workday tasks and activities, company social events both during or outside of the workday, etc.)
- To whom the policy will apply, in terms of classifications, occupations or designated individuals.

The information below provides general principles and an example methodology as a guide for employers to use in identifying and articulating where and to whom the company alcohol and drug policy will apply.

It is incumbent upon senior management to assign this task to qualified and experienced personnel so that the risk management benefits of a strong alcohol and drug policy are in balance with the incremental logistics and responsibilities imposed on the people working on safety-sensitive sites. The methodology used and decisions made must be reasonable and defensible. The principles and examples that follow can assist in meeting these objectives.

Employers may choose to use an assessment methodology other than that outlined below. Note that alternate identification of safety-sensitive positions must meet the same levels of thoughtfulness, reasonableness and defensibility.

The deliverable from this exercise should be a clear summary of where and to whom the policy will apply. It should be readily understood by all employees, supervisors, managers, contractors and regulators. For instance, a table similar to the one shown in Table C-1 can effectively communicate where and to whom the policy will apply to employees, contractors, etc.

Table C-1 Example summary of safety-sensitive positions and designated individuals

	Site access testing	Reasonable cause testing	Post-incident testing	Random testing
Non-safety-sensitive positions	N	Y	Y	n/a
Safety-sensitive position categories • Electrical trades • Operators • Non-destructive testing (NDT) technicians • Pipefitter trades	Y	Y	Y	Y
Safety-sensitive positions – Designated individuals • Amanda Right • Clayton Long	Y	Y	Y	Y
Risk-sensitive positions – Designated individuals • Bill Short • Susan Left	Y	Y	Y	Y

Safety-sensitive and risk-sensitive positions

Safety-sensitive positions, in the context of the Canadian Model, are those where the employee has a key and direct role in an on-site operation where performance limitations (e.g. due to substance use) could result in an incident or near miss with the potential for high consequences (e.g. significant property damage, environmental damage or negative impact to reputation, and/or serious injury or fatalities to workers or the public). No risk-mitigating measures warrant reclassification of these positions – although the likelihood may be reduced, the potential for high consequences still exists.

Risk-sensitive positions, in the context of the Canadian Model, are a subset of safety-sensitive positions. They include supervisors, technical experts, etc. who reside off-site but make safety-critical decisions and direct on-site employees conducting potentially dangerous tasks in potentially dangerous work environments. Performance limitations (e.g. due to substance use) could result in an incident or near miss as described above. Risk-sensitive positions and individuals should be clearly identified, similar to safety-sensitive positions and individuals.

Safety-sensitive assessment tool

The matrix shown in Table C-2 illustrates a logical framework that can be used as a safety-sensitive assessment tool for on-site positions. While companies should adapt the matrix to their own circumstances, including work activities and environments consistent with their operations, care should be taken not to reduce the severity of the activities and environments currently represented in the table.

In evaluating a particular position, take the following into account:

- **Work environment:** Consider the highest risk or hazard exposure related to the work environment in which the work activities will be performed, as well as the highest consequence environment or location where an employee may perform work, even if it is done on an infrequent basis.
- **Work activities:** Consider the highest consequence activity or task that will be undertaken by an employee, even if it is done on an infrequent basis.

By industry agreement, all construction sites, all maintenance or turnaround sites and the activity of driving are considered safety-sensitive environments.

Note that there are no positions that should be described as “potentially safety-sensitive.” This grey zone on the matrix illustrates that some positions lie near the boundary between safety-sensitive and not safety-sensitive. Thoughtful evaluation of these positions is necessary in order to designate them one way or the other. If any doubt exists, it is appropriate to take a conservative approach and designate the position as safety-sensitive.

Use the following or an equivalent methodology to identify positions that are safety-sensitive or risk-sensitive. Summarize safety-sensitive positions and risk-sensitive positions (if any) to identify applicability of the Canadian Model (as required in section 1.0).

Table C-2 Example of a safety-sensitive assessment tool

			Work activities – Specific exposure to risks				
			A1	A2	A3	A4	A5
			- Office-based admin, computer support - Non-third-party camp accommodation and meal services	Site abandonment and remediation (no equipment decommissioning – low density of workers)	- Seismic operations - Construction, operation and maintenance of plant equipment (smaller, lower energy equipment) - On-site supervision and technical support of above - Non-third-party camp food preparation	- Drilling, completion and tie-in operations - Fracking operations - Well servicing operations - Safety watch, hot watch - Heavy equipment transport - Heavy lifts - On-site supervision and technical support of above	- Construction, operation and maintenance of plant equipment (larger, higher energy equipment – high density of workers) - Plant maintenance and turnarounds - Commissioning/ startup or decommissioning/ disassembly of larger, higher energy equipment - On-site supervision and technical support of above
Work environment – General exposure to risks	E1	Non-operating locations					
	E2	Minor risk operations (identified hazards, low density of workers) - Brownfield site - Pipeline right-of-way (ROW)	Non-safety-sensitive (typical circumstances)		Potentially safety-sensitive (evaluate specific circumstances, designate either safety-sensitive or non-safety-sensitive)		
	E3	Considerable risk operations - Production facilities - Pipeline compressor/pump stations					
	E4	Major risk operations - Rig sites, fracking sites - Proximity to moving and/or (higher) energized equipment - Proximity to environmentally sensitive areas			Safety-sensitive (typical circumstances)		
	E5	Construction sites Turnaround sites	By industry agreement, all construction sites, all maintenance or turnaround sites and the activity of driving are considered safety-sensitive environments				
	E6	Driving (on company business)					
	E7	Remote sites (long emergency response time) Working alone					

APPENDIX D – INDEPENDENT LEGAL OPINION

Canadian Model for Providing a Safe Workplace

The Construction Owners Association of Alberta (COAA) and Energy Safety Canada have asked whether the Canadian Model for Providing a Safe Workplace: A best practice from the Construction Owners Association of Alberta and Energy Safety Canada – Alcohol and Drug Guidelines and Work Rule – Version 6.0 – July 1, 2018 (the Canadian Model) is legally defensible.¹ In preparing this opinion, we have considered obligations under: the *Alberta Human Rights Act* (the *Human Rights Act*)²; the *Personal Information Protection Act (PIPA)*³; the *Occupational Health and Safety Act (OHSA)*⁴; the *Criminal Code*⁵; and applicable jurisprudence.

We are of the opinion that as of the date of this opinion, the Canadian Model is legally defensible. However, the law regarding alcohol and drug testing is changing rapidly, and the specific circumstances of each case are of great importance in determining the legality of alcohol and drug testing in a particular workplace. It follows that those considering adopting the Canadian Model will want to obtain independent legal advice that takes into account the current state of the law and their own circumstances, including the context of their own work environment.⁶

We will explain the considerations that led to this conclusion by setting out the key features of the Canadian Model and the main parts of the legislative provisions, and we will review the basic principles of the law on human rights, privacy and occupational health and safety. The leading cases will be reviewed in the context of the Canadian Model.

Canadian Model background

The Canadian Model has been established to accomplish two goals. First, it will “provide a safe workplace for all employees and those whose safety may be affected by the conduct of employees [covered by the Canadian Model].”⁷ Second, adherence to the Canadian Model will “ensure that all employees are treated fairly and with respect.”⁸ Importantly, the Canadian Model is only one part of an overall approach to safety.⁹

An important part of the Canadian Model is the work rule. It is clear and unequivocal. An employee shall not use, possess, or offer for sale, alcohol and drugs while at a company workplace or work site, or report to work or work with an alcohol and drug level in excess of the prescribed cut-offs.¹⁰

The Canadian Model incorporates a number of features to ensure employees will abide by the work rule. First, there is an educational component. A company that adopts the Canadian Model must take reasonable steps to educate its workforce of the “safety risks associated with the use of alcohol and drugs” and the “assistance available under an employee assistance program (EAP).”¹¹ Second, the Canadian Model encourages self-help.¹² Third, there is a simple enforcement measure. An employee must submit to an alcohol and drug test in specified circumstances. One is where an observer has reasonable grounds to believe that an employee may be unable to work in a safe manner.¹³ Another is where an observer has reasonable grounds to believe that an employee was involved in an incident or near miss.¹⁴ The Canadian Model further contemplates random testing and site-access testing in some circumstances.¹⁵

Part of the Canadian Model explains why the work rule is important:

- The use of alcohol and drugs adversely affects the ability of a person to work in a safe manner. Employees at company workplaces are often working independently or with equipment or material in an environment that poses a threat to the safety of themselves, the workforce, the workplace and the property at the workplace, if handled without proper care and attention.
- In setting the requirements in the alcohol and drug work rule it is acknowledged that assessments of risks relating to work activities, equipment and processes may lead to a company workplace adopting more rigorous requirements in relation to the risks faced in particular work.
- This policy will remind employees of the risks associated with the use of alcohol and other drugs and provide understandable and predictable responses when an employee's conduct jeopardizes the safety of the workplace.¹⁶

A worker who fails to comply with the alcohol and drug work rule faces a range of consequences.¹⁷ According to the Canadian Model, "determination of the appropriate disciplinary measure will depend on the facts of each case, including the nature of the violation, the existence of prior violations, the response to prior corrective programs, and the seriousness of the violation", with the primary objective of deterring any future violation by the worker.¹⁸ Prior to making a final decision to discipline or terminate a worker who has failed to comply with the work rule,¹⁹ the worker must undergo a substance abuse assessment.²⁰ If a worker is to return to work, the worker may have to complete a rehabilitation program or secure a certificate from "a licensed physician with knowledge of substance abuse disorders" that the worker "is able to safely perform the duties he or she will be required to perform if employed by the company" and comply with other reasonable demands.²¹

Implementing work rules

In unionized work environments, work rules, like the Canadian Model, can be agreed to by the parties as part of collective bargaining. Alternatively, if a work rule has not been bargained, management is free to implement work rules subject to any express collective agreement terms providing otherwise or legislative restrictions. Further, in accordance with KVP principles, such work rule must be reasonable and must be clear and unequivocal.²²

In our view, the Canadian Model complies with the requirements necessary to implement a work rule pursuant to management rights. Specifically, the implementation of alcohol and drug testing policies, such as the Canadian Model, in safety-sensitive work environments, has generally been considered a reasonable use of management rights.²³ Decision-makers have consistently acknowledged that industrial workplaces and operational sites in the oil and gas sector, in Alberta, are safety-sensitive and that alcohol and drugs on such sites are safety hazards that detrimentally impact workplace safety. Furthermore, the language used throughout the Canadian Model is clear and unequivocal, including clear language setting out the work rule and the potential consequences for breaching the terms of the Canadian Model. Other elements of KVP will need to be implemented by the particular employer adopting the Canadian Model, such as notice requirements and consistent enforcement.

The implementation of the Canadian Model in a non-unionized workplace is similarly likely reasonable in a safety-sensitive work environment with the appropriate notice and training, and provided employers otherwise abide by their duty to accommodate in appropriate cases.²⁴

As mentioned above, employers considering adopting the Canadian Model will want to obtain independent legal advice in this regard.

Statutory obligations

A number of statutory considerations are engaged by the Canadian Model. Most relevant are human rights legislation, privacy legislation, occupational health and safety legislation and the *Criminal Code*. As will be discussed below, the Canadian Model satisfies the statutory obligations articulated by Alberta legislation and appropriately balances competing interests.²⁵

Human rights

The Canadian Model complies with human rights legislation.

Employers cannot discriminate against employees with regards to employment or any term or condition of employment because of a physical or mental disability. Alcohol and drug dependencies can constitute a disability under human rights legislation.²⁶ However, human rights are not engaged absent an actual addiction or an employer's subjective perception that there is an addiction. Therefore, in appropriate cases,²⁷ an alcohol and drug policy must ensure that those with a disability are accommodated to the point of undue hardship. As will be discussed below, the Canadian Model satisfies human rights obligations because there are no automatic consequences for a positive alcohol and drug test. Further, it requires employees who believe they are unable to comply with the work rule to seek help by taking such steps as are necessary to ensure he/she presents no safety risk to himself/herself or to others at the workplace.²⁸ Those who test positive are individually assessed to determine if they have an addiction. Further, those with dependencies are appropriately accommodated.

In *Chiasson*, an Alberta Human Rights Panel (the Panel) upheld the dismissal of an employee who tested positive for marijuana on a pre-employment alcohol and drug test as the employee did not have an addiction. Because there was no actual or perceived disability, the employer was not under a duty to accommodate the complainant. The Court of Appeal upheld the Panel's decision and concluded that human rights legislation prohibits certain, but not all, treatment based on human rights characteristics. In this case, the complainant was not a drug

addict and the policy did not perceive the complainant to be an addict. Rather, the policy "perceive[d] that persons who use drugs at all are a safety risk in an already dangerous workplace." The Court of Appeal noted that the purpose of the policy was to reduce workplace incidents by prohibiting workplace alcohol and drug use. There was a clear connection between the purpose of the policy and its application to recreational users. Although the Court determined it did not need to address the issue of whether or not the policy would be a *bona fide* occupational requirement (BFOR), it went to great lengths to acknowledge the importance of safety to employers in safety-sensitive work sites. The Court noted that "extending human rights protections to situations resulting in placing the lives of others at risk flies in the face of logic."²⁹

Similarly, in *Luka*,³⁰ the employer, Lockerbie & Hole, had a pre-access testing policy in place. The complainant failed a pre-access alcohol and drug test but refused to undergo an assessment so he was terminated. The complainant brought a human rights complaint. The only evidence before the Panel was that the complainant was a recreational drug user. While the Panel agreed that alcoholism and drug addiction were disabilities, those were not applicable to the complainant because he was only a recreational user. Therefore, the disability, or perceived disability, was not established and the complaint was dismissed.

Therefore, absent an actual addiction or an employer's subjective perception that there is an addiction, human rights legislation will not have application.

If an individual can establish that he or she has a disability,³¹ the onus will shift to an employer to establish that the alcohol and drug testing policy is a BFOR.³² The three-step test created by the Supreme Court of Canada in *Meiorin*³³ remains the standard for determining whether a *prima facie* discriminatory standard is a BFOR. Specifically, an employee must establish the following on a balance of probabilities:

- (a) That the employer adopted the standard for a purpose rationally connected to the performance of the job,

- (b) That the employer adopted the particular standard in an honest and good faith belief that it was necessary to the fulfillment of that legitimate work-related purpose, and
- (c) That the standard is reasonably necessary to the accomplishment of that legitimate work-related purpose. To show that the standard is reasonably necessary, it must be demonstrated that it is impossible to accommodate individual employees sharing the characteristics of the claimant without imposing undue hardship upon the employer.

Past human rights decisions have confirmed that alcohol and drug testing will constitute a BFOR in dangerous work environments.³⁴

The Supreme Court of Canada's decision in *Elk Valley* reinforces the right of employers to take proactive risk mitigation and management measures through alcohol and drug policies. In this case, Elk Valley implemented an alcohol and drug policy that, among other things, required employees to disclose addiction issues before an alcohol or drug-related incident occurred (A&D Policy). Employees who self-disclosed would be offered treatment. Employees who failed to self-disclose before an incident and subsequently tested positive for alcohol or drugs, could be terminated. In this case, an employee, Stewart, was involved in a workplace incident and tested positive for cocaine. During the subsequent investigation, Stewart stated he thought he was addicted to cocaine, but had not disclosed his addiction prior to the incident. Pursuant to the A&D Policy, Elk Valley terminated Stewart. Stewart argued that he was terminated for his addiction, which constituted discrimination.

The Supreme Court of Canada confirmed Stewart was terminated for breach of the A&D Policy, not his disability. A key factor in this decision was the finding of fact that Stewart had the capacity to comply with the terms of the A&D Policy. The majority of the Supreme Court of Canada opined that where the cause of termination is breach of a workplace policy or other conduct attracting discipline, the mere existence of an addiction does not establish *prima facie* discrimination. Such an interpretation

would lead to the conclusion that employers could never sanction addicted employees who fail to comply with a workplace policy even if there was evidence that the employee could comply, but chose not to comply, with the policy.³⁵

The majority of the Supreme Court of Canada, having found no *prima facie* discrimination, did not consider whether the employee was reasonably accommodated. Justices Moldaver and Wagner, however, having found *prima facie* discrimination, considered the issue of accommodation. The justices held that Elk Valley reasonably accommodated Stewart. Stewart's termination was reasonably necessary so that the deterrent effect of the A&D Policy was not significantly reduced. Elk Valley had a valid objective in preventing employees from using drugs in a way that could give rise to "serious harm" in its safety-sensitive workplace. Lesser measures would have undermined the A&D Policy's deterrent effect and compromised Elk Valley's objective and, therefore, amounted to undue hardship.³⁶ Therefore, the requirement, in section 4.2.2 of the Canadian Model, to seek help, is consistent with *Elk Valley*.

The Canadian Model is a BFOR. The purpose of the Canadian Model is to reduce the risk of incidents where alcohol and drugs may be a contributing factor or cause.³⁷ The Canadian Model is necessary to accomplish this legitimate purpose of workplace safety. Finally, the Canadian Model is the least intrusive measure available to employers to address this legitimate purpose. In particular, the Canadian Model states that:

- [t]here are no other reasonable alternatives available to the employer that impose a smaller burden on any rights an employee may have under the *Alberta Human Rights Act* and at the same time are equally as effective in promoting the purposes of this alcohol and drug policy.³⁸

The Canadian Model appropriately accommodates individuals with alcohol and drug dependencies. The Canadian Model contains the following measures:

- There are no automatic sanctions following a positive test. Rather employees are sent for an individualized assessment by a substance abuse expert to determine whether the employees suffer from any alcohol or drug dependencies, and
- There are individualized treatment and aftercare plans to appropriately accommodate the needs of the particular employee.³⁹

Another important feature of the Canadian Model is the self-help provision. Employees must seek employee assistance services or seek help from a substance abuse expert should the employee believe he or she suffers from a substance dependency.⁴⁰ Further, the Canadian Model contemplates extensive education and training to ensure that employees understand the hazards associated with alcohol and drugs in the workplace and information regarding how to seek help for substance use or abuse concerns.⁴¹ There is also extensive supervisor training.⁴²

All of the above factors ensure that the Canadian Model is consistent with human rights obligations.

Privacy law

The Canadian Model complies with privacy requirements.

Privacy issues related to alcohol and drug policies most commonly involve the method of testing, the use and disclosure of test results and the reasonableness of the testing. *PIPA* mandates how personal information can be collected, used and disclosed by organizations. Personal information must be collected, used and disclosed for "reasonable purposes" and only to the extent that is reasonable for meeting those purposes.⁴³ Alcohol and drug tests are personal information.⁴⁴

The Canadian Model complies with privacy legislation. In particular, as it relates to the collection of the personal information through the testing process, the Canadian Model includes the following measures to ensure the protection of personal information:

- The test is conducted in accordance with those parts of the United States Department of Transportation (U.S. DOT) Workplace Drug and Alcohol Testing Programs that relate to testing procedures in laboratories⁴⁵
- The use of trained personnel in accordance with the U.S. DOT protocols⁴⁶
- Collection personnel must comply with standard operating procedures⁴⁷
- The test is only for the enumerated drugs set out in the testing panel⁴⁸
- Medical review officer (MRO) review is conducted following U.S. DOT protocols⁴⁹
- Strict chain of custody protocols are followed,⁵⁰ and
- A certified lab is utilized.⁵¹

The issue of whether alcohol and drug testing is reasonably necessary to establish, manage or terminate an employment relationship was considered in *Vancouver Shipyards*.⁵² Arbitrator Hope upheld the employer's alcohol and drug testing policy as reasonable under the *British Columbia Personal Information Protection Act (BC PIPA)*, which is substantially similar to *PIPA*. In this case, Arbitrator Hope concluded that the testing requirement was allowed under the exception in *BC PIPA* that allowed employers to collect and use personal employee information without their consent because it was reasonable for the purposes of establishing, managing or terminating the employment relationship. Arbitrator Hope opined that the test under *BC PIPA* for determining reasonableness of the collection and use was the same as the test under human rights legislation to determine if there was a BFOR. Therefore, if a policy is a BFOR from a human rights perspective, it will meet the *BC PIPA* reasonableness test.⁵³

Additionally, the Canadian Model sets out strict requirements regarding the use and disclosure of information collected through alcohol and drug testing, including:

- Limiting disclosure of test results from an MRO to only the designated company representative in a confidential written report⁵⁴
- Limiting the information disclosed to only information regarding whether the test result is positive, negative, if the individual refused to take the test or if the sample has been cancelled and the test cannot be relied upon; or if there is a safety advisory,⁵⁵ and
- Limiting the ability of the designated company representative to disclose test results to only those who need to know the test results to discharge an obligation under the Canadian Model.⁵⁶

The extensive privacy protections set out in the Canadian Model ensure compliance with *PIPA*.

Health and safety

The Canadian Model complies with health and safety obligations. Importantly, the Canadian Model is only one aspect of a comprehensive approach to safety.

An employer has a duty to maintain a safe work environment under occupational health and safety legislation and the *Criminal Code*.⁵⁷ Specifically, such legislation requires employers to address workplace hazards, such as alcohol and drugs.

The obligation to maintain a safe work environment and to address workplace hazards is entrenched in the *OHSA*.⁵⁸ A hazard is a situation, condition or thing that may be dangerous to the safety or health of workers.⁵⁹ In accordance with section 7 of the *OHS Code*, employers “must assess [their] work site and identify existing and potential hazards.” If a workplace hazard exists, the hazard must be eliminated or controlled, if elimination is not possible.⁶⁰ Failure to identify hazards and take corrective action can result in a conviction under the *OHSA*, including exposure to significant fines and imprisonment. The Canadian Model is

aimed at eliminating and controlling workplace hazards relating to alcohol and drugs.

The duty to ensure a safe workplace has been codified in the *Criminal Code*.⁶¹

In *Metron*,⁶² an employer pled guilty to criminal negligence causing death due to a breach of the duty in section 217.1 of the *Criminal Code*. The plea in *Metron* included a statement that permitting a person to work under the influence of drugs on a project can be a factor in establishing criminal negligence:

- [t]he Crown emphasized the tragic consequences of this offence which resulted in the death of 4 individuals and the serious injury of another, as well as the inherent dangerous conduct of a senior officer of the corporation in allowing 6 individuals to be on a scaffold with only 2 lifelines, only one of which was used, and not only allowing the consumption of an intoxicant by workers but also consuming an intoxicant himself.⁶³

The Court of Appeal in *Metron* noted that the “[t]oxicological analysis determined that three of the four deceased, including the site supervisor, Fazilov, had marijuana in their systems at a level consistent with having recently ingested the drug.”⁶⁴ *Metron* was sentenced to a fine of \$200,000. However, the Ontario Court of Appeal raised the fine to \$750,000, finding that the previous fine was disproportionate to the offence and failed to deliver a message on the importance of worker safety. Further, the \$200,000 fine ignored the gravity and circumstances of the offence, failed to send any message of deterrence or denunciation to other corporations and undermined the intent and effectiveness of the Bill C-45 *Criminal Code* amendments.⁶⁵ *Metron* makes it clear that employers who fail to take appropriate steps to ensure a safe work environment in the face of known hazards such as workplace alcohol and drug use will be subject to prosecution under the *Criminal Code*.

The statutory obligations set out in occupational health and safety legislation and the *Criminal Code* offer further support for the need to implement alcohol and drug policies such as the Canadian Model in safety-sensitive workplaces. It is accepted that alcohol and drugs are a

workplace hazard, and such legislation obligates employers to address known hazards. The Canadian Model is only one part of a comprehensive safety policy to address such workplace hazards. As a result, the Canadian Model will serve to help employers comply with such legislative obligations.

The use of urine-based point of collection testing (POCT) strengthens the Canadian Model from a health and safety perspective.⁶⁶ In particular, the use of POCT will assist employers in addressing workplace hazards in accordance with its statutory obligations by immediately removing workers who pose a safety risk in the workplace. POCT allows for immediate results so that individuals who do not pose a safety risk can be returned to work as quickly as possible.

Similarly, measures to address the legalization of cannabis take into account the resulting safety hazards.⁶⁷

Alcohol and drug testing

The Canadian Model contemplates the use of pre-access, reasonable grounds, post-incident and random alcohol and drug testing.⁶⁸ Return to work and followup testing are also contemplated in some circumstances.⁶⁹ For the reasons discussed above, pre-access,⁷⁰ reasonable cause, post-incident, return to work and followup testing have been widely accepted as reasonable forms of testing in safety-sensitive work environments in Alberta.

As set out above, section 4.6 of the Canadian Model also contemplates random alcohol and drug testing. *Irving*⁷¹ was the first Supreme Court of Canada decision to address random testing in the context of a unionized work environment. When considering the reasonableness of random testing, the Supreme Court of Canada noted:

- [p]rivacy and safety are highly sensitive and significant workplace interests. They are also occasionally in conflict. This is particularly the case when the workplace is a dangerous one.⁷²

The Supreme Court of Canada determined that although there was no debate about the safety-sensitive nature of the workplace, the dangerousness of a workplace is only the beginning of the inquiry. “What has been additionally required is evidence of enhanced safety risks, such as evidence of a general problem with substance abuse in the workplace.”⁷³ As a result, *Irving* confirmed that random alcohol and drug testing may be reasonable in a safety-sensitive workplace where there is evidence of a general problem with substance abuse in a workplace.⁷⁴ The test articulated by the Supreme Court of Canada is straightforward and clear.

Considering the particular facts before them in *Irving*, the Supreme Court of Canada found that random alcohol testing was not justified in the context of the Irving paper mill. In particular, the Supreme Court of Canada found insufficient evidence of a problem in the context of Irving’s work environment given that there were only eight alcohol-related incidents (including five occasions where employees had attended the workplace under the influence) over a 15-year period and no positive random or reasonable cause tests in the prior 22 months.⁷⁵

Since *Irving* there have been few decisions considering the reasonableness of random alcohol and drug testing. The most notable decision was *Suncor*, where the Alberta Court of Appeal clarified the evidentiary threshold necessary to implement random testing in the workplace.⁷⁶ In particular, the Court held that evidence demonstrating an alcohol or drug problem was not limited to evidence only within a particular bargaining unit or employee group. Rather, the broader workplace context should be examined. In particular, the Court stated:

- *Irving* defined the balancing process in terms of workplace safety and workplace substance abuse problems – not bargaining unit safety and bargaining unit substance abuse problems. *Irving* calls for a more holistic inquiry into drug and alcohol problems within the workplace generally, instead of demanding evidence unique to the workers who will be directly affected by the arbitration decision. [Emphasis added.]⁷⁷

While the Court of Appeal noted that there may be some workplaces where there may be good reason to distinguish between the evidence of substance abuse by unionized employees, non-unionized employees and contractors, that is not the case where the evidence is that all workers work side-by-side, in integrated workforces at integrated jobsites.

Given the above, random testing as contemplated in the Canadian Model will be appropriate in specific cases. However, based on *Irving*, in unionized workplaces,⁷⁸ before taking the step to implement random alcohol and drug testing, employers must be prepared to demonstrate evidence of enhanced safety risks, such as evidence of a general problem with substance abuse in the workplace. Some examples of such evidence may include, among other things: positive alcohol and drug tests, alcohol, drug and drug paraphernalia finds, fatalities, injuries, near misses, or incidents caused by alcohol and drugs,⁷⁹ evidence of drug trafficking, and substance dependency among the workforce.⁸⁰

Other considerations when assessing whether to implement random alcohol and drug testing should include whether there are less intrusive measures that could be implemented to reduce the safety risk associated with alcohol and drugs before moving to random testing.⁸¹

Conclusion

To conclude, we are of the opinion that the Canadian Model is consistent with human rights legislation, privacy legislation, occupational health and safety legislation, the *Criminal Code* and existing jurisprudence. In our view, the Canadian Model reasonably balances safety and privacy interests in order to address safety concerns relating to alcohol and drugs present in safety-sensitive work environments in Alberta. This is consistent with employers' obligations to ensure a safe work environment.

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Relevant legislation

Alberta Human Rights Act

• Discrimination re employment practices

7(1) No employer shall

- (a) refuse to employ or refuse to continue to employ any person, or
- (b) discriminate against any person with regard to employment or any term or condition of employment, because of the race, religious beliefs, colour, gender, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation of that person or of any other person.

(3) Subsection (1) does not apply with respect to a refusal, limitation, specification or preference based on a bona fide occupational requirement.

• Applications and advertisements re employment

8(1) No person shall use or circulate any form of application for employment or publish any advertisement in connection with employment or prospective employment or make any written or oral inquiry of an applicant

- (a) that expresses either directly or indirectly any limitation, specification or preference indicating discrimination on the basis of the race, religious beliefs, colour, gender, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation of that person or of any other person, or

- (b) that requires an applicant to furnish any information concerning race, religious beliefs, colour, gender, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation.

(2) Subsection (1) does not apply with respect to a refusal, limitation, specification or preference based on a bona fide occupational requirement.

• Reasonable and justifiable contravention

11 A contravention of this Act shall be deemed not to have occurred if the person who is alleged to have contravened the Act shows that the alleged contravention was reasonable and justifiable in the circumstances.

44(1) In this Act,

- (h) “mental disability” means any mental disorder, developmental disorder or learning disorder, regardless of the cause or duration of the disorder;
- (l) “physical disability” means any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes epilepsy, paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, and physical reliance on a guide dog, service dog, wheelchair or other remedial appliance or device;

Personal Information Protection Act

- **Limitations on collection**

- 11(1) An organization may collect personal information only for purposes that are reasonable.
- (2) Where an organization collects personal information, it may do so only to the extent that is reasonable for meeting the purposes for which the information is collected.

- **Collection of personal employee information**

- 15(1) An organization may collect personal employee information about an individual without the consent of the individual if
- (a) the information is collected solely for the purposes of
 - (i) establishing, managing or terminating an employment or volunteer-work relationship, or
 - (ii) managing a post-employment or post-volunteer-work relationship, between the organization and the individual,
 - (b) it is reasonable to collect the information for the particular purpose for which it is being collected, and
 - (c) in the case of an individual who is a current employee of the organization, the organization has, before collecting the information, provided the individual with reasonable notification that personal employee information about the individual is going to be collected and of the purposes for which the information is going to be collected.

- (2) Nothing in this section is to be construed so as to restrict or otherwise affect an organization's ability to collect personal information under section 14.

- **Limitations on use**

- 16(1) An organization may use personal information only for purposes that are reasonable.
- (2) Where an organization uses personal information, it may do so only to the extent that is reasonable for meeting the purposes for which the information is used.

- **Use of personal employee information**

- 18(1) An organization may use personal employee information about an individual without the consent of the individual if
- (a) the information is used solely for the purposes of
 - (i) establishing, managing or terminating an employment or volunteer-work relationship, or
 - (ii) managing a post-employment or post-volunteer-work relationship, between the organization and the individual,
 - (b) it is reasonable to use the information for the particular purpose for which it is being used, and
 - (c) in the case of an individual who is a current employee of the organization, the organization has, before using the information, provided the individual with reasonable notification that personal employee information about the individual is going to be used and of the purposes for which the information is going to be used.

- (2) Nothing in this section is to be construed so as to restrict or otherwise affect an organization's ability to use personal information under section 17.

- **Limitations on disclosure**

19(1) An organization may disclose personal information only for purposes that are reasonable.

- (2) Where an organization discloses personal information, it may do so only to the extent that is reasonable for meeting the purposes for which the information is disclosed.

- **Disclosure of personal employee information**

21(1) An organization may disclose personal employee information about an individual without the consent of the individual if

- (a) the information is disclosed solely for the purposes of
 - (i) establishing, managing or terminating an employment or volunteer-work relationship, or
 - (ii) managing a post-employment or post-volunteer-work relationship, between the organization and the individual,
- (b) it is reasonable to disclose the information for the particular purpose for which it is being disclosed, and

- (c) in the case of an individual who is a current employee of the organization, the organization has, before disclosing the information, provided the individual with reasonable notification that personal employee information about the individual is going to be disclosed and of the purposes for which the information is going to be disclosed.

(2) An organization may disclose personal information about an individual who is a current or former employee of the organization to a potential or current employer of the individual without the consent of the individual if

- (a) the personal information that is being disclosed was collected by the organization as personal employee information, and
- (b) the disclosure is reasonable for the purpose of assisting that employer to determine the individual's eligibility or suitability for a position with that employer.

(3) Nothing in this section is to be construed so as to restrict or otherwise affect an organization's ability to disclose personal information under section 20.

Occupational Health and Safety Act

- **Obligations of employers**

3(1) Every employer shall ensure, as far as it is reasonably practicable for the employer to do so,

- | | |
|---|---|
| <ul style="list-style-type: none"> (a) the health and safety and welfare of <ul style="list-style-type: none"> (i) workers engaged in the work of that employer, (ii) those workers not engaged in the work of that employer but present at the work site at which that work is being carried out, and (iii) other persons at or in the vicinity of the work site who may be affected by hazards originating from the work site, (b) that the employer's workers are aware of their rights and duties under this Act, the regulations and the OHS code and of any health and safety issues arising from the work being conducted at the work site, (c) that none of the employer's workers are subjected to or participate in harassment or violence at the work site, (d) that the employer's workers are supervised by a person who <ul style="list-style-type: none"> (i) is competent, and (ii) is familiar with this Act, the regulations and the OHS code that apply to the work performed at the work site, (e) that the employer consults and cooperates with the joint work site health and safety committee or the health and safety representative, as applicable, to exchange information on health and safety matters and to resolve health and safety concerns, (f) that health and safety concerns raised by workers, supervisors, self-employed persons and the joint work site health and safety committee or health and safety representative are resolved in a timely manner, and | <ul style="list-style-type: none"> (g) that on a work site where a prime contractor is required, the prime contractor is advised of the names of all of the supervisors of the workers. <ul style="list-style-type: none"> (2) Every employer shall ensure that workers are adequately trained in all matters necessary to protect their health and safety, including before the worker <ul style="list-style-type: none"> (a) begins performing a work activity, (b) performs a new work activity, uses new equipment or performs new processes, or (c) is moved to another area or work site. (3) Every employer shall cooperate with any person exercising a duty imposed by this Act, the regulations and the OHS code. (4) Every employer shall comply with this Act, the regulations and the OHS code. <p>37(1) An employer who employs 20 or more workers shall establish, in consultation with the joint work site health and safety committee, a health and safety program that includes, at a minimum, the following elements:</p> <ul style="list-style-type: none"> (a) a health and safety policy that states the policy for the protection and maintenance of the health and safety of workers at the work site; (b) identification of existing and potential hazards to workers at the work site, including harassment, violence, physical, biological, chemical or radiological hazards and measures that will be taken to eliminate, reduce or control those hazards; (c) an emergency response plan; |
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- (d) a statement of the responsibilities of the employer, supervisors and workers at the work site;
- (e) a schedule and procedures for regular inspection of the work site;
- (f) procedures to be followed to protect health and safety when another employer or self-employed person is involved in work at the work site, including criteria for evaluating and selecting and for regularly monitoring those employers and self-employed persons;
- (g) worker and supervisor health and safety orientation and training;
- (h) procedures for investigating incidents, injuries and refusals to work;
- (i) procedures for worker participation in work site health and safety, including inspections and the investigation of incidents, injuries and refusals to work;
- (j) procedures for reviewing and revising the health and safety program if circumstances at a work site change in a way that creates or could create a hazard to workers;
- (k) any elements set out in the regulations.

Occupational Health and Safety Code

- 1 "hazard" means a situation, condition or thing that may be dangerous to the safety or health of workers;
- 7(1) An employer must assess a work site and identify existing and potential hazards before work begins at the work site or prior to the construction of a new work site.

- 9(1) If an existing or potential hazard to workers is identified during a hazard assessment, an employer must take measures in accordance with this section to

- (a) eliminate the hazards, or
- (b) if elimination is not reasonably practicable, control the hazard.

Criminal Code

- 217.1 Every one who undertakes, or has the authority, to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task.

- 219.(1) Every one is criminally negligent who

- (a) in doing anything, or
- (b) in omitting to do anything that it is his duty to do, shows wanton or reckless disregard for the lives or safety of other persons.

- (2) For the purposes of this section, "duty" means a duty imposed by law.

Endnotes

1. Please note that this opinion is based on the current state of the law. Many cases on alcohol and drug testing are currently under appeal. The law in this area continues to evolve and our opinion may change depending on the outcome of any future decisions. This opinion does not address any of the appendices.
2. *Alberta Human Rights Act*, RSA 2000, c A-25.5.
3. *Personal Information Protection Act*, SA 2003, c P-6.5.
4. *Occupational Health and Safety Act*, SA 2017, c O-2.1, effective June 1, 2018.
5. *Act to Amend the Criminal Code (criminal liability of organizations)*, SC 2003, c 21, p 3, amending RSC 1985, c C-45 (*Criminal Code*).
6. Please note that this opinion only contemplates the reasonableness of the Canadian Model itself, not the application of the Canadian Model by parties who adopt the Canadian Model for use in their particular workplaces.
7. Canadian Model, at s 2.0(a).
8. Canadian Model, at s 2.0(b).
9. Canadian Model, at the Introduction.
10. Canadian Model, at s 3.1.
11. Canadian Model, at s 4.1.
12. Canadian Model, at s 4.2.1. See also Canadian Model, at s 4.2.2: Employees who believe they are unable to comply with the work rule must seek help by taking such steps as are necessary to ensure he/she presents no safety risk to himself/herself or to others at the workplace.
13. Canadian Model, at s 4.4.
14. Canadian Model, at s 4.5.
15. Canadian Model, at ss 4.6-4.7.
16. Canadian Model, at s 2.1.
17. Canadian Model, at s 5.0.
18. Canadian Model, at s 5.1.
19. Canadian Model, at s 3.1(b).
20. Canadian Model, at s 5.2.1.
21. Canadian Model, at s 5.2.2.
22. *Lumber & Sawmill Workers' Union, Local 2537 v KVP Co.* (1965), 16 LAC 73, at para 34 (KVP). Other requirements set out in KVP that would be applicable relating to the implementation of the Canadian Model are as follows: it must be brought to the attention of the employee affected before the company can act on it; the employee concerned must have been notified that a breach of such rule could result in discharge if the rule is used as a foundation for discharge; and such rule should have been consistently enforced by the company from the time it was introduced.
23. See for instance: *Re Canadian National Railway Co. and Canadian Auto Workers* (2000), 95 LAC (4th) 341 (Picher); *Fording Coal Ltd. v United Steelworkers of America, Local 7884*, [2002] BCCA No. 9; *Dupont Canada Inc. v Communications, Energy, Paperworkers Union, Local 280*, (2002) 105 LAC (4th) 399 (Picher).
24. See for instance: *Chiasson v Kellogg Brown and Root (Canada) Company*, 2005 AHRC 7 (AB Human Rights Panel, 2005-06-07), rev'd 2006 ABQB 302, aff'd 2007 ABCA 426, leave to appeal to SCC refused, [2008] SCCA No. 96 (*Chiasson*).

25. Jurisprudence has accepted that alcohol and drugs constitute a workplace hazard (see for instance *UA Local 488 v Bantrel Constructors Co.* (2007), 162 LAC (4th) 122 (Alta Arb) (Smith), aff'd by 2007 ABQB 721, rev'd on other grounds by 2009 ABCA 84 (*Bantrel*), at para 31 (as a preliminary matter we need say no more about the importance to all concerned of efforts to improve safety in hazardous workplaces); *Milazzo v Autocar Connaissanceur Inc.*, 2003 CHRT 37 (*Milazzo*), at para 171 (positive alcohol or drug test is an indication that employee presents an elevated risk of accident).
26. See for instance: *Entrop v Imperial Oil Ltd.*, [2000] OJ No. 2689 (ONCA) and *Alberta (Human Rights & Citizenship Commission) v Elizabeth Metis Settlement*, 2003 ABQB 342, rev'd on other grounds by 2005 ABCA 173 (*Elizabeth Metis*).
27. See for instance: *Bish v Elk Valley Coal Corp.*, 2012 AHRC 7, rev'd 2013 ABQB 756, rev'd 2015 ABCA 225, aff'd 2017 SCC 30 (*Elk Valley*).
28. Canadian Model, at s 4.2.2. See also *Elk Valley*.
29. *Chiasson*, at para 36. See also *Elk Valley*.
30. *Luka v Lockerbie & Hole Inc.*, 2008 AHRC 1 (AB Human Rights Panel, 2008-02-15), rev'd 2009 ABQB 241 (reversed only on the employer issue), aff'd 2011 ABCA 3 (*Luka*). A requirement by a site-owner that all contractors require their workers to submit to site-access testing does not make the site-owner an employer under the *Human Rights Act*.
31. Or a perceived disability.
32. Section 7(3) of the *Human Rights Act* provides that a standard that is based on a BFOR will not contravene section 7(1). Section 11 of the *Human Rights Act* further provides that a contravention will not have occurred if the person who is alleged to have contravened the *Human Rights Act* shows that the alleged contravention was reasonable and justifiable in the circumstances.
33. *British Columbia (Public Service Employees Relations Commission) v British Columbia Government and Public Service Employees Union (Meiorin Grievance)*, [1999] 3 SCR 3 (*Meiorin*).
34. See for instance: *Elizabeth Metis; Elk Valley*.
35. *Elk Valley*, at para 42.
36. *Elk Valley*, at para 55. See also the recent arbitration decision of *Lower Churchill Transmission Construction Employer's Association Inc. and IBEW Union 1620 (Roil)*, April 30, 2018, where the use of medical marijuana by an employee in a safety-sensitive work environment constituted undue hardship for the employer.
37. Canadian Model, at the Introduction.
38. Canadian Model, at s 2.3.
39. Canadian Model, at s 5.2.1, Appendix B. Further, requiring a worker to get treatment prior to allowing the worker on-site is consistent with the jurisprudence (*PCL Industrial Constructors Inc. and BBF Local Lodge No 146* (2007), 91 CLAS 378 (Jones) (*PCL*)).
40. Canadian Model, at s 4.2.
41. Canadian Model, at s 4.1.
42. Canadian Model, at the Alcohol and drug guidelines, Education and awareness.

43. *PIPA*, at ss 11, 16, 19.
44. A subset of personal information is personal employee information. Employers may collect, use or disclose employees' personal information without consent if it is reasonably necessary to establish, maintain or terminate an employment relationship (*PIPA*, at ss 15, 18, 21).
45. Canadian Model, at s 4.8.1.
46. Canadian Model, at ss 4.8.1, 4.8.5.
47. Canadian Model, at s 4.8.5.
48. Canadian Model, at s 3.1(b)(ii).
49. Canadian Model, at s 4.8.3, Appendix A.
50. Canadian Model, at ss 4.8.3, 4.8.5, Appendix A.
51. Canadian Model, at ss 4.8.1, 4.8.2, 4.8.3, Appendix A.
52. *Vancouver Shipyards Co. v UA, Local 170* (2006), 156 LAC (4th) 229 (Hope) (*Vancouver Shipyards*).
53. *Vancouver Shipyards*, at para 17.
54. Canadian Model, at s 4.9.1, Appendix A.
55. Canadian Model, at ss 4.9.2-4.9.5, Appendix A.
56. Canadian Model, at s 4.9.6. See also Canadian Model, at s 3.3, which limits disclosure, relating to prescription use, by a supervisor or manager to those who need to know to discharge a statutory or common law obligation.
57. Past decisions have acknowledged the need to keep these statutory obligations in mind when assessing the proper use of management rights or the necessary accommodations required of an employer (*Oak Bay Marina Ltd. v British Columbia (Human Rights Commission)*, 2002 BCCA 495, at para 34; *Bantrel*, at para 93).
58. *OSHA*, at ss 3, 37.
59. *Occupational Health and Safety Code, 2009* (the *OHS Code*), at s 1.
60. *OHS Code*, at ss 1, 7, 9(1).
61. *Criminal Code*, at s 217.1: Every one who undertakes, or has the authority, to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task.
62. *R. v Metron Construction Corp.*, 2012 ONCJ 506, at para 7 (*Metron QB*) rev'd by 2013 ONCA 541 (*Metron CA*).
63. *Metron QB*, at para 10.
64. *Metron CA*, at para 13.
65. *Metron CA*, at paras 115 and 120; *Criminal Code*, at s 217.1.
66. Canadian Model, at s 4.8.5.
67. Canadian Model, at s 6.1(i).
68. Canadian Model, at ss 4.4-4.7.
69. Canadian Model, at Appendices A and B.

70. *Chiasson; Luka; Stilwell v Edmonton Exchanger & Manufacturing Ltd.*, 2010 AHRC 5 (CanLII) (AB Human Rights Panel, 2010-07-21); *McNamara v Lockerbie & Hole Inc.*, 2010 AHRC 7 (CanLII) (AB Human Rights Panel, 2010-07-22); *Bley v Syncrude Canada*, 2010 AHRC 6 (CanLII) (AB Human Rights Panel, 2010-07-21); *PCL; Mechanical Contractors Association Sarnia v United Association of Journeymen and Apprentices of the Plumbing & Pipefitting Industry of the United States and Canada, Local 663*, 2013 CanLII 54951 (ON LA) aff'd by 2014 ONSC 6909, an Ontario arbitration decision found pre-access testing unreasonable in the context of that workplace. This decision is contrary to settled law in Alberta confirming the reasonableness of pre-access testing. The decision was upheld on judicial review.
71. *Communications, Energy and Paperworkers Union of Canada, Local 30 v Irving Pulp & Paper, Limited*, (2009), 189 LAC (4th) 218 (NB Arb) (Veniot), quashed by 2010 NBQB 294, aff'd 2011 NBCA 58, rev'd 2013 SCC 34 (*Irving*).
72. *Irving*, at para 1.
73. *Irving*, at paras 31, 37, 41, 45, 51, 52.
74. Random testing will also be reasonable where it has been bargained.
75. See also *Teck Coal Ltd. & USW, Local 7884, Re*, 2018 Carswell BC 119 (BC Arb) (Kinzie) and *Teck Coal Ltd. and UMWA, Local 1656 (Drug and Alcohol Policy), Re* (2015), 256 LAC (4th) 1 (Alexander-Smith) where the employer was not justified in implementing random alcohol and drug testing at its operations as there was no evidence of a general problem in the workplace. In contrast, see *Communication Energy and Paperworkers Union, Local 777 v Imperial Oil Limited*, (27 May 2000) (Alta Arb) (Christian), unreported, and *Greater Toronto Airports Authority v PSAC, Local 0004*, [2007] LVI 3734-2 (Ont Arb) (Devlin), where random testing was accepted as reasonable based on the evidence. These decisions were cited with approval by the Majority and Minority in *Irving*.
76. *Suncor Energy v Unifor Local 707A*, 242 LAC (4th) 1, quashed by 2016 ABQB 269, aff'd 2017 ABCA 313. The arbitration panel hearing the initial grievance decided the matter in a two-to-one decision (242 LAC (4th) 1, [2014] AGAA No 6). The majority ruled in favour of Unifor and found that Suncor had not demonstrated sufficient safety concerns within the bargaining unit to justify random testing. The dissent concluded that there was overwhelming evidence of safety issues within the workplace and would have upheld the random testing. The Court of Queen's Bench and the Court of Appeal allowed Suncor's application for judicial review, quashed the arbitration decision and ordered the matter remitted to a fresh arbitration panel for a new hearing (2016 ABQB 269). Leave to appeal to the Supreme Court of Canada was filed on November 22, 2017. As of the date of this opinion, the leave application before the Supreme Court of Canada is pending.
77. *Suncor*, at para 46.
78. In non-union workplaces, there is no additional requirement to demonstrate "enhanced safety risk" such as evidence of a general workplace problem.
79. This includes where alcohol and drugs contributed to an incident or near miss.
80. The requirement is enhanced safety risk such as a general workplace problem. Therefore, the evidence of a problem will significantly vary from workplace to workplace.
81. Employers who have implemented the Canadian Model, which includes education, training and testing, can likely demonstrate there are no other less intrusive measures.

APPENDIX E – INDEPENDENT MEDICAL OPINION

Canadian Model for Providing a Safe Workplace

Introduction

The purpose of this medical opinion is twofold. The first purpose is to provide a survey of the current medical understanding of workplace safety risks arising from the use of alcohol and drugs, the detection practices used to assess site-specific risks, and the workplace policies that provide the overall context for mitigating those risks. The second purpose is to comment on alignment of Version 6.0 of the Canadian Model for Providing a Safe Workplace with current medical understanding in creating a supportive, healthy and safe work environment.

Background

Alcohol and drug use is not new to our society. Nearly every civilization throughout history has used alcohol and plant-derived psychoactive substance for thousands of years, with alcohol use and psychoactive plant use dating as far back as 10,000 BC (Moss & Albery, 2009; Hart & Ksir, 2012; Müller & Schumann, 2011). Historically, alcohol and drug use disorders have not been considered a global and public health priority (Whiteford et al., 2013). However, from 1990 to 2010, global deaths attributable to alcohol and drug use disorders increased by 48.9 per cent and 191.7 per cent, respectively (Lozano et al., 2012). With recent headlines warning, “Alcohol and drug use is on the rise!”, employers, researchers and practitioners have been called to task. The real question is why we, as a society, need to engage in such an increasingly high consumption of alcohol and drugs? What is missing from our lives? This crucial conversation needs to be had by all.

Alcohol and drug use in North America serves as a widespread component of society. Alcohol use has a long-standing reputation as a social lubricant, source of revenue and pervasive part of our culture – something to relax with after a long day at the office and to celebrate with on special occasions – and drug use has the

reputation of helping an individual calm down, socialize, change his or her mental state or ease pain (Moss & Albery, 2009; Müller & Schumann, 2011). Psychoactive drugs, such as alcohol and/or cocaine, cause changes to subjective experience and/or behaviour by altering the central nervous system functioning (Müller & Schumann, 2011). These changes can be responsible for lowering inhibitions and feeling ease in social situations, reinforcing positive expectations and experiences, and perpetuating use of the drug. However, they can also be maladaptive and can lead to reduced psychomotor and cognitive functioning that causes sensation-seeking, unintentional and intentional injury, and fatality.

While prescription drugs are prescribed by a physician and intended for use only by the prescribed individual in the prescribed dosage, non-prescription drugs include over-the-counter drugs that do not necessitate a physician prescription. The U.S. Food and Drug Administration (FDA) mandates that a medicinal drug requires a prescription if it is not safe to use without the supervision of a practitioner who can legally administer drugs because of the drug's toxicity, potential harmful effects, method of use or other measures necessary for its use, such as Dilaudid (hydromorphone) and Percocet (oxycodone and acetaminophen) (FDA, 2012). However, this is not to imply that non-prescription drugs are all safe for use, as the over-consumption of both prescription and non-prescription drugs can have destructive effects on safety-sensitive job sites and the misuse of all drugs should be taken seriously (Brass, Lofstedt, & Renn, 2011). For example, Dextromethorphan, an active ingredient in over-the-counter cough suppressants such as Robitussin and Nyquil, is being used in high doses to induce intoxicating effects such as disrupted coordination, dizziness, blurred vision and hallucinations, and its excessive consumption leads to fatality (Logan et al., 2009). Moreover, recent research has shown that false and misleading television advertising is predominant in consumer-targeted prescription and non-prescription drug advertising, often downplaying the negative effects of these drugs (Faerber & Kreling, 2013).

In addition to risks posed on single occasions of alcohol and drug use, the problematic use of alcohol and drugs can lead to physical dependency and addiction. As well, given the current crisis in North America with opioid-related deaths, we know that the impact in the workplace is being felt. Since 2012 in the U.S., the number of people dying from alcohol or drug-related causes while on the job has been growing by at least 25 per cent each year, according to the Bureau of Labor Statistics (2017). In Alberta, we have recently seen a 40 per cent increase in year-to-year opioid-related deaths (Alberta Health, 2017).

Although most people who use psychoactive drugs may not become addicted, there is a group of people who will become addicted (Müller & Schumann, 2011). Drug addiction is a broad term ranging on a spectrum of severity and occurs when an individual is unable to stop or control use, resulting in compulsive use despite negative consequences, including health, employment, social, personal, financial and family dysfunction (APA, 2013; O'Brien, 2010). In contrast, physical dependency is the use of a drug such that the individual experiences tolerance (requiring larger quantities to experience an effect) and withdrawal (adverse symptoms that occur upon cessation of drug use).

Physical dependency is distinct from addiction; for example, research correlating alcohol consumption characteristics with physical dependency and alcoholism (or alcohol addiction) have found the two to be at opposite ends of the alcohol disorder continuum (Saha, Stinson, & Grant, 2006). Dependency can be a normal aspect of prescription drug use and does not necessitate or imply addiction (O'Brien, 2010). For example, patients on opiates for long-term chronic pain management start the regime on a low dose of opiates and increase dosage when tolerance is reached and when patients would experience withdrawal symptoms if the drug were to be ceased without weaning off the drug (Manchikanti & Singh, 2008).

This perpetual use of the prescribed drug for pain management does not necessitate addiction, as these patients may still be able to control the time, place and quantity of drug

consumed and maintain the ability to stop consuming the drug at any time; it is not the repetitive nature that constitutes a problem. A patient may be diagnosed as addicted if they exhibit problematic opioid-seeking behaviours during treatment that cause behavioural problems, or take the drug in a manner or dose different than what was prescribed (Ballantyne & LaForge, 2007). Unfortunately, there is no one cure for addiction or dependency. Treatment options range from medicinal to behavioural therapies and are largely dependent on the individuals' circumstances. Workers with addiction issues need to be fully supported and offered access to assessment, treatment and rehabilitation by specialists.

In a 2014 report, the Centre for Addiction and Mental Health stated: "Canada has one of the highest rates of cannabis use in the world. More than 40% of Canadians have used cannabis in their lifetime and 10% have used it on the past year. No other illegal drug is used by more than 1% of Canadians every year." Medicinal marijuana presents a unique challenge as it is hotly debated by medical, legal and regulatory officials. Medicinal marijuana is most commonly prescribed for pain, insomnia and anxiety and can relieve nausea, muscle spasms and appetite loss in cancer patients (Hall, Christie, & Currow, 2005; Reinerman et al., 2011). However, a recent article, "Simplified guideline for prescribing medical cannabinoids in primary care", suggests that cannabinoid use be limited in general and only be used for certain medical conditions where well researched and documented evidence of benefit exists: including neuropathic pain, palliative and end-of-life pain, chemotherapy-induced nausea and vomiting, and spasticity due to multiple sclerosis or spinal cord injury (Allan, 2018). Where traditional prescription medications attained from local pharmacies cannot be prescribed unless they have been subjected to extensive research and controlled trials, physicians in Canada are given the discretion to make their own decision on whether to authorize marijuana, despite a lack of efficacy and safety research, and patients must purchase it from a licensed producer. Although Bostwick (2012) argues that the goal of medicinal marijuana use for symptom relief does not match the recreational goal to get high and is thus a distinct behaviour from consuming

marijuana, research has found that people who are more fond of medicinal marijuana tend to be prior recreational or chronic marijuana users and that patients having a difficulty tolerating the drug tend to lack recreational experience with it (O'Connell & Bou-Matar, 2007; Kalant, 2008).

Moreover, despite the public opinion that marijuana is non-addicting, research has demonstrated symptoms of marijuana withdrawal and the DSM-V (Diagnostic and Statistical Manual of Mental Disorders, Version 5) now includes a classification for marijuana withdrawal syndrome (APA, 2013). Like other medications, it has implications for health and workplace safety, including aerodigestive tract and lung cancers, stunted development in adolescents, and reduced psychomotor and cognitive functioning (Budney, Novy & Hughes, 1999; Hall, Christie, & Currow, 2005; Raphael et al., 2005). Despite an abundance of claims and anecdotal evidence of the benefits of medicinal marijuana, large-scale rigorous and controlled scientific research is lacking to claim with certainty that medicinal marijuana is safe and beneficial (Kleber & DuPont, 2012).

For example, researchers have found that medicinal marijuana prescribed at therapeutic doses poses a risk to driving (Bosker et al., 2012). The challenge for practitioners is how to interpret medical, legal and regulatory opinions when diagnosing marijuana dependence/ addiction and determining workplace safety risks. It is anticipated that the growth, sale, possession and consumption of marijuana use will be legalized in 2018 by the Government of Canada. In the absence of any new scientific evidence on marijuana use and the attendant risks of workplace impairment, there is no rationale at present to change either the drug panel maxima or the overarching principle upon the legalization of marijuana in Canada. Data from some jurisdictions in the U.S. that have already legalized the use of marijuana have shown an increase in injuries (Injury Prevention Centre, 2018).

Drugs and their effects on the human body

Drugs have a range of effects on the body, each of which is dependent on many factors, including amount consumed, method of consumption, time since last consumption, personal predisposition, expectation, genetic vulnerability, context, prior use, tolerance level, etc. Moreover, studies assessing the impacts of drugs are often done at low and controlled doses that vary from the large, and varying, doses in which drugs are consumed outside of the controlled laboratory setting. Table E-1 summarizes the key effects, duration of effects and withdrawal symptoms of the drugs included in the policy. Alcohol is a depressant. Cocaine, amphetamine/ methamphetamine and ecstasy, including 3,4- methylenedioxymethamphetamine (MDMA), 3,4-methylenedioxyamphetamine (MDA), and 3,4-methylenedioxyethylamphetamine (MDEA), are stimulant drugs. Opiates, including codeine, morphine and 6-acetylmorphine (heroin), are opioid drugs. Phencyclidine, known as PCP, is a hallucinogen drug. Marijuana does not fit nicely into one class of drugs and has been described as a depressant, relaxant and hallucinogen.

It is worth noting that Table E-1 represents the scope of possible effects and that each individual is unique. Extending past acute intoxication, it is also important to highlight that the cycle of use involving intoxication to hangover effects and the prolonged adverse effects after binge consumption have relevant implications for workplaces. Such health and performance consequences can include fatigue, falling asleep at work, reduced alertness, increased human errors, and decreased cognitive and psychomotor functioning (Ames, Grube, & Moore, 1997; Hunter & Francescutti, 2013). For example, heavy marijuana users have more cognitive deficits than former or never/light users at zero, one, seven and 28 days post-abstinence, and marijuana users who used for more than five consecutive years but have been abstinent for an average of two years still experience persistent attention deficits (Bolla et al., 2002; Raphael et al., 2005).

As another example, driving performance deficits among amphetamine users have been linked to the sleep deprivation that results from amphetamine bingeing and other post-drug effects (Mushoff & Madea, 2012). The effect of each drug also varies if taken in combination with other drugs. For example, the synergistic effect of alcohol and cocaine results in elevation of the heart rate that is greater than the additive effect of each drug individually and raises the tendency toward violent thoughts, threats and behaviours past those that are presented by cocaine use alone (Pennings, Leccese, & de Wolff, 2002).

It is well established that an individual who has an addiction must be afforded the respect that they have a disease. They are in need of being properly identified and offered treatment and some degree of accommodation if required. Individuals with such an addiction may lack the insight to be aware of their disease. If they are initially identified on a drug screening, they will need further investigation by well-trained addiction specialists in a timely fashion. The addicted worker needs help, whether he or she is willing to acknowledge and accept that help depends on the individual.

Not everyone who uses drugs will become addicted. In fact, people dependent on alcohol, marijuana or cocaine will cease consumption, though not necessarily permanently, at some point in their lifetime (Lopez-Quintero et al., 2010). However, there are factors that lead to the escalation from use to abuse. Biologically, researchers have found allostatic changes in the reward system that leads people to excessive intake whereby neurochemical mechanisms in the stress and reward circuits become dysregulated (Koob et al., 2004). In other words, addiction is not solely a matter of building tolerance and needing more of a drug more often to experience the same effects (Zernig et al., 2007). It is a combination of becoming sensitized to the positive and reinforcing effects of the drug, the body's inability to return to homeostasis following drug consumption, an increase in the incentive of drug-associated stimuli, an increase in reinforcing effects of the drug as compared to alternative positive reinforcers in life, and habit formation (Zernig et al., 2007).

In addition to biological dysregulation, the effects of genetic vulnerability, childhood maltreatment, chronic stress and early life stress that also predispose individuals to drug abuse cannot be ignored (Compton et al., 2013; Koob et al., 2004; Sinha, 2008). Research assessing the escalation from non-use to problematic use of alcohol over a three-year period found that, of those who started using alcohol during the assessment period, more than half reported problematic drinking and that this was associated with family history of substance abuse, poverty, childhood abuse and early drug use (Compton et al., 2013). Age of drug initiation also plays a role and researchers have found marijuana use before age 17 is associated with other drug use, alcohol dependence and drug abuse as an adult (Lynskey et al., 2003).

Table E-1 Effects, duration of effects and withdrawal symptoms of policy drugs

	Effects	Duration	Withdrawal
Alcohol	Disinhibition, relaxation, slurred speech, distorted vision and hearing, talkativeness, depressed neural functions including reaction time, uncoordinated movement, unconsciousness, blackout, coma	Depends on weight, gender, age, time and other factors. Generally, excretion is one standard drink per hour	Symptoms include restlessness, shakiness, hallucinations, convulsions, anxiety, headaches, nausea, vomiting, confusion, insomnia, sweating
Marijuana (depressant, relaxant and hallucinogen)	Distorted sense of time, paranoia, magical thinking, short-term memory loss, anxiety, depression, rapid heart rate, increased blood pressure and breath rate, red eyes, dry mouth, increased appetite, slow reaction time	Oral: Five+ hours, delayed onset peaking at one to three hours Inhalation: 1/2 life 20 to 30 hours, peaks in blood within 10 minutes, effects peak at 30 to 60 minutes	Starts one to three days after cessation, lasts four to 14 days up to one month. Symptoms include irritability, anxiety, depression, anger, reduced appetite, insomnia
Cocaine (stimulant)	Energy, alertness, elevated mood, superiority, irritability, paranoia, restlessness, anxiety, decreased coordination, violent behaviour, dilated pupils, seizures, exuberant speech, increased heart rate and blood pressure	1/2 life: 0.5 to 1.5 hours Snorting: 15 to 30 minutes Smoking: Five to 10 minutes	Symptoms include sleep disturbance, fatigue, psychomotor agitation or retardation, increased appetite, vivid and unpleasant dreams, depression
Opioids (including codeine, morphine, hydrocodone, hydromorphone, oxycodone, oxymorphone)	Relaxed dreamlike state, sleepiness, clouding of consciousness, decreased coordination, slurred speech, drowsiness, constipation, euphoria, difficulty breathing, headaches, dizziness and confusion	1/2 life: Two hours, 90 per cent excreted in 24 hours. Single use performance deficits have been noted up to four to six hours	Symptoms include diarrhea, nausea, vomiting, cramps, chills, profuse sweating, abdominal pain, anxiety, panic attacks, muscle and joint pain, sweating
6-Acetylmorphine (heroin metabolite)	Initial rush of pleasurable sensation and euphoria followed by hours of sleepiness, dry mouth, heaviness in extremities, drowsiness, confusion, nausea, vomiting, itchiness, reduced cognitive functioning, heart and breath rate slowing	1/2 life: 0.6 hours (6-AM metabolite is used for detection and is in the body for several hours after single use) Euphoria: 45 seconds to several minutes Overall: Five hours	Begins five to 12 hours after last dose. Flu-like symptoms, anxiety, sleep, gastrointestinal distress, goose bumps, aggression, paranoia, increased heart rate and high blood pressure. Symptoms peak after 36 to 72 hours and fade after five to 10 days
Phencyclidine (also known as PCP)	Altered perceptions of reality including visual and bodily perceptions, numbness and relaxation, slurred speech, odd erratic and unexpected behaviours	Oral: Five to eight hours Smoked or injected: Three to five hours	Symptoms include decreased reflexes, weight loss, memory loss, confusion, anxiety, speech difficulties, depression, lack of impulse control, coma, suicide, death
Amphetamine/methamphetamine (stimulant)	Euphoria, risk-taking, heightened self-esteem, tunnel vision, paranoia, hallucinations, headaches, increased breathing rate, shortness of breath, reduced appetite, increased sweating, irregular heartbeat, chest pain	1/2 life: Seven to 34 hours depending on urine pH Smoked or injected: Immediately Snorted or swallowed: Within 30 minutes	Symptoms include sleep disturbance, fatigue, psychomotor agitation or retardation, increased appetite, vivid and unpleasant dreams
Ecstasy (including MDMA, MDA)	Derealization, depersonalization, energy, empathy, impulsivity, euphoria, hallucinations, altered perception of space and time, hyperthermia, increased heart rate and blood pressure, nausea, blurred vision, chills / sweating, faintness	Three to six hours. Deficits from light use can last after 20 to 40 days of abstinence	Symptoms include depression, insomnia, agitation, disturbances to concentration and memory, overheating, anxiety, loss of reality, paranoid delusions, panic attacks

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Note: It cannot be emphasized enough that the performance deficits associated with the use of the substances persist well beyond the periods outlined in the table above. These performance deficits have significant implications for safe work performance and there are safety concerns with the use of substances in close temporal proximity to work.

Consequences of alcohol and drug use in the workplace

According to the World Health Organization (2011), alcohol misuse is the leading cause of death among 25 to 50-year-olds, an age group encompassing a large portion of the workforce. In 2006, 12.7 million of the 20.6 million American adults with substance dependence or abuse were employed full-time (National Center for Health Statistics, 2006). In that same year, another study also found that illicit drug use in the workforce involved approximately 14.1 per cent of employed adults and that 3.1 per cent of adults used illicit drugs in the workplace specifically, with some workplaces reporting up to 28 per cent of employees involved in illicit drug use (Frone, 2006b). Alcohol and drug use in the workplace is correlated with workplaces exhibiting poor safety conditions that cause stress and alcohol-related problems, high numbers of work hours and unhealthy working conditions (Frone, 2008; Butler, Dodge, & Faurote, 2010; Peretti-Watel et al., 2009). The consequences of this are broad and serious and, at the extreme, include death.

Alcohol consumption causes performance deficits and safety risks through its physiological effects on the body whereby it depresses the action of the central nervous system, causing a lowering of inhibitions and reduced psychomotor and cognitive functioning, and feeding into human errors that cause performance deficits, thereby increasing safety-related risks. The implications of this in the workplace are great. Even in instances involving experienced merchant ship pilots, low doses of alcohol significantly decreased a pilot's ability to navigate a fully loaded container vessel through a passage with commercial traffic on a simulator (Howland et al., 2001). Even past index event of consumption, hangover effects can also influence workplace dynamics. Of full-time employees aged 18 to 49 years, it is estimated that 13.1 per cent of heavy alcohol users and 15.9 per cent of illicit drug users have skipped work in the past month and that 10.2 per cent of heavy alcohol users and 12 per cent of illicit drug users will miss work two or more days per month due to illness or injury (Substance Abuse and Mental Health Services, 1996). At the extreme end of the consequences of substance use in

the workplace, Australian estimates suggest that alcohol and cannabis or amphetamines account for approximately seven per cent and six per cent of work-related deaths, respectively (McNeilly et al., 2010).

Alcohol use encourages risk-taking behaviours and leads to aggression in the workplace. This may manifest in victimization, perpetration, witnessing violence, co-worker criticism, ignoring supervisor instructions, incompleteness of tasks and intentionally doing jobs incorrectly (Bennett & Lehman, 1999; McFarlin et al., 2001). Moreover, alcohol use on-site places the consumer and others at greater risk of injury, especially in work environments involving heavy machinery where alcohol and drug use can lead to human errors in equipment functioning that can have devastating results for machine operators and bystanders (Frone, 2006a; Frone, 2009). Research in farm work has found higher rates of employee alcohol consumption to increase the individual's and co-worker's risk of injury (Stallones & Xiang, 2003). Research estimates that the cost of harm done by alcohol to others is equivalent to the cost of harm done by alcohol to the individual consuming it, which highlights the need for workplace policies that protect both the consumer and innocent bystanders (Laslett et al., 2010).

Occupational drivers are among the most high-risk groups for alcohol and drug-related workplace injury. From 2000 to 2010 in Canada, 56.7 per cent of fatally injured drivers tested positive for alcohol, drugs or both, with males accounting for over 85 per cent of cases (Bierness, Beasley, & Boase, 2013). Alcohol and driving has received a great deal of media and research attention, but drug-related traffic collisions are also a major safety concern. Amphetamine and methamphetamine use at both low and high doses result in traffic-related skill deficits, and their binge use results in extensive periods of fatigue and prolonged daytime or nighttime sleep that together culminate in safety risks. In fact, 73 per cent of drivers with any level of blood amphetamine and methamphetamine concentration are judged as having performance deficits that pose a significant safety risk (Gustavsen, Morland, & Bamness, 2006). However, the mere presence of a drug does not denote performance deficits

and each drug represents a unique case. In a study on the effects of opioid addiction treatment, researchers reported that individuals stabilized on methadone, levacetylmethadol (LAAM) and buprenorphine treatment exhibited no difference in driving skills when compared to non-drug users (Lenné et al., 2004).

Despite myths that marijuana does not affect driving ability, there is an association between marijuana use and work-related road traffic collisions (Smith et al., 2004). Not only is marijuana use increasing, but it is being developed with greater potency and work-related injuries are becoming an even greater concern (Canfield et al., 2010). A recent article in the National Post (2018) had a very interesting title: “How much cannabis should you smoke and stay under the proposed legal limit for driving?” The answer may be zero. Medical cannabis use is now legal in 29 states, and recreational use is legal in eight states. In 2014, Washington state became one of the first two states to sell cannabis for nonmedical (recreational) use. Naturally, with the expansion of the legalization of cannabis use, the number of users is anticipated to grow during the next decade.

For example, although drug use regulations are rarely reported in aviation workplaces with random drug testing policies, the number of persons in fatal aviation crashes that tested positive for marijuana increased 2.7 times from 1997 to 2006 (Canfield, et al., 2010; Li, et al., 2011). Moreover, chronic marijuana-users are reported to have a decreased ability to respond to negative consequences because of poor decision-making and decreased functional responsiveness (Wesley, Hanlon, & Porrino, 2011). Coupled with research noting that marijuana users exhibiting significant performance deficits within 24 hours of smoking rarely have an awareness of the drug’s effects, marijuana use in the workplace marks a significant risk to safety (Leirer, Yesavage, & Morrow, 1991).

Detection practices

Drug testing is the process of detecting drugs or drug metabolites of alcohol and illicit or prescription drugs in the human body. In the workplace, there are numerous reasons for testing, including pre-employment, pre-access, reasonable cause, post-incident, unannounced followup, return-to-duty and random testing. Although reasonable cause testing has been found to be an effective method to detect alcohol and drug violations, particularly in aviation employees, it has been criticized for reducing morale and trust in employer-employee relationships and for its lack of scientific rigour as it depends on behavioural observations (Li et al., 2010). Although reasonable cause testing is of some use, it is limited by the fact that it is difficult even for trained professionals to identify workers who are under the influence of substances.

As such, research has turned to a variety of other detection practices.

Although pre-access screening determines sobriety before allowing workers to enter a job site, ongoing testing is needed to assess and prevent risk on-site given the prevalence of injuries resulting from workplace alcohol and drug use. Random alcohol and drug testing entails the testing of random employees at random times without forewarning. Proper implementation of random testing where employees are made aware of the policy and all employees are subject to the policy regardless of their job title has been found to be an effective deterrent to alcohol and drug use in the workplace and reduces injury and productivity and absenteeism losses. Although workers may be given the option to voluntarily disclose alcohol or drug consumption, research suggests that disclosure does not accurately correlate with amounts consumed.

Rather than discuss impairment, it is important to emphasize well-established research regarding workplace safety risks and performance deficits arising from alcohol and drug use. Urinalysis has been among the most common forms of drug testing and allows for on-site testing and immediate results. Urinalysis provides information on past exposure to a drug,

which varies by drug as different metabolites are eliminated from the body at different rates. From this information and past literature correlating known drug concentrations to risks and performance deficits, we extrapolate the most likely time since consumption and the degree of safety risks posed by this level of consumption.

As science and technology advances, the ability to detect alcohol and drug consumption from oral fluid (i.e. saliva) samples has been receiving increasing attention (Holmes & Richer, 2008). Oral fluid testing can be administered easily and immediately on-site and can indicate recent use (Holmes & Richer, 2008; Kadehjian, 2005). For example, oral testing was found to be superior to urine for testing drugs of abuse in drivers under the influence and reduced incidence of cases incorrectly determined to not exhibit driving ability deficits (Toennes et al., 2005). Oral fluid testing also complements other drug testing and may be used to triangulate evidence (Bush, 2008).

The United States Department of Transportation (U.S. DOT) (2017) cut-off concentrations recently updated its panel to include four “semi-synthetic” opioid drugs: hydrocodone, hydromorphone, oxycodone and oxymorphone. These drug testing panels are used as the gold standard for drug testing, which match research findings pertaining to safety risk and performance deficits and reflect a comprehensive view of employees' human and legal rights and reasons for the presence of small amounts of alcohol and drugs to be in one's system. In other words, the cut-off is the level at which there are no performance deficits, but above the cut-off is a red flag for safety risks. For example, the minimum U.S. DOT cut-off quantity of alcohol has been found to significantly increase performance deficits and safety risks among merchant ship pilots, and the level at which research has determined safety concerns and performance deficits for amphetamine, methamphetamine and marijuana use are also equivalent to the U.S. DOT (Bosker & Huestis, 2009; Howland et al., 2001; Ramaekers et al., 2006).

Workplace policies

There are numerous workplace alcohol and other drug policies that are proposed in reducing the risk of injury and fatalities and enhancing workplace safety (WorkSafe Victoria, 2017; CCOHS, 2017; Workplace Safety North, 2017). Policies may involve risk-based approaches, treatment programs and policies surrounding re-entry into the workplace. Whatever the approach, it is important that employees perceive their superiors as likely and able to deal with substance use problems and that social norms reflect that alcohol and drug use on-site is unacceptable, as social norms and perceptions of employers play a strong role in policy adherence (Biron, Bamberger, & Noyman, 2011; Frone & Brown, 2010). When workplace policies are sensitive and respectful of employees, they can extend past safety concerns and boost morale. A recent study assessing employee efficacy among human resource organizations using drug testing programs found that human resource professionals reported a perceived increase of 19 per cent in employee productivity after the initiation of drug-testing programs (Fortner et al., 2011).

Workplace characteristics may dictate the effectiveness of certain types of policies. In a study comparing 20,500 construction, manufacturing and service work companies that did not have an alcohol or drug workplace policy to 261 companies using a drug-free workplace program, researchers found the use of a program decreased overall injury rates as well as serious injuries resulting in four or more days absence (Wickizer et al., 2004). Key common elements of the programs were:

- Employers ensured that all workers received substance education
- A comprehensive policy was established, outlining prohibitions, testing procedures and sanctions for alcohol and drug abuse
- An employee assistance program (EAP) was available for confidential treatment and referrals.

The researchers posited that part of the success in maintaining the program in these companies may be attributed to the cooperation between employers and employees. For example, having regular crew supervisor meetings with groups or one-on-one helps to ensure employees are educated about the policy and available resources. It is possible that involving employees in substance abuse education, including clearly and concisely relaying the drug-free policy, may have even increased staff morale and self-efficacy, and strengthened the relationship between employers and employees.

Policies for occupational drivers have also been effective in reducing injury. Following implementation of a mandatory alcohol testing program that involved pre-employment, random, suspicion and post-incident testing, the rate of positive blood alcohol concentrations (BAC) in fatal multi-vehicle crashes decreased for motor and non-motor carrier drivers, with a 23 per cent reduction in the risk of positive BAC in fatal collisions by motor carrier drivers (Brady et al., 2009). Snowden et al. (2007) reported that passenger car drivers were 4.7 per cent less likely to abuse alcohol in the workplace following the implementation of random alcohol and drug testing and that random alcohol testing was associated with a 14.5 per cent reduction in alcohol involvement among drivers of large trucks (Snowden et al., 2007). Programs that do not see immediate decreases with occupational driver policies are encouraged to wait, as long-term benefits may be more prominent (Cashman et al., 2009).

Workplace policies involving treatment programs for those testing positive for alcohol and drugs are also effective in reducing workplace injury (Wood et al., 2012). Researchers have found that workers testing positive on drug tests had a significant decrease in injuries following substance use treatment compared to those with self-referred issues (Elliott & Shelley, 2007). Workers undergoing compulsory inpatient treatments tend to fair better than those in compulsory attendance at Alcoholics Anonymous who end up requiring a significant amount of additional hospital treatment (Walsh et al., 1991). EAPs can include preventive services and screening, early identification, short-term counselling, referral to specialty

treatment and other behavioural health interventions and are effective in addressing substance use problems (Merrick et al., 2007). Moreover, EAPs relieve supervisors of having to diagnose workers' conditions and instead direct those workers to someone who understands their needs (Ensuring Solutions, 2003).

Beyond the workplace

Workplace policies can also remedy misconceptions about the harms of alcohol and drug use. While many people can list numerous health consequences of smoking, many people cannot list the consequences of alcohol consumption (Huang, Hunter, & Francescutti, 2013). The media has a great influence on perceptions about alcohol and drug use and media exposure to alcohol product advertisements is greater than exposure to alcohol company-sponsored responsibility advertisements, especially those targeting youth (Center on Alcohol Marketing and Youth, 2007). Even in the responsibility campaigns, ambiguous messaging leads to an overall sense of mistrust and confusion over the company's true intent (Atkin, McCardle, & Newell, 2008).

Many adults' roles in their family and community lives depend on their ability to maintain income. Workplace policies not only prevent disability and unemployment by enhancing safety, but their deterring effect on problematic alcohol and drug use has very broad implications (Roman & Blum, 2002). Using the Department of Defense's Worldwide Survey of Health Related Behaviors and the National Survey of Drug Use and Health, researchers found that the implementation of a zero-tolerance drug policy among military personnel lowered their rate of illicit drug use from above the rest of the population's average use rate to below the population average (Mehay and Pacula, 1999). The implications of this deterrence effect extend into family and personal relationships, which are known to suffer when an individual has problematic substance use behaviours, dependence or addiction (Huang, Hunter, & Francescutti, 2013).

Conclusion

The inappropriate consumption of alcohol and drugs is a problem on a societal scale; for safety-sensitive positions on inherently risky heavy industrial construction sites, that general problem translates to tangible and immediate risks to workers and their co-workers.

Proper implementation and understanding of the Canadian Model provides a holistic framework to proactively address and mitigate those risks:

- Delineation of a clear safety culture with respect to alcohol and drug use and fitness to work
- A better appreciation of existing co-morbid issues (mental issues, fatigue, distraction) and the impact of polysubstance use in terms of dose, strength and frequency of use
- An understanding that the impending legalization of marijuana and the increased recent use of medicinal marijuana should not change the current view of how it is to be managed in the workplace
- Provision of model policies and procedures that can be adopted by companies and that are transparent for both employers and employees
- Based on scientifically sound and credible best practices (e.g. drug cut-off concentrations established by the U.S. DOT)
- Detailed protocols that are scientifically sound in terms of sample integrity and are also respectful of employee privacy in terms of disclosure of medical information
- Diagnosis, compassionate treatment and, hopefully, re-integration of workers afflicted with addiction issues
- Establishment of an industry standard that facilitates both efficient inter-site mobility of construction workers and efficient administration by individual companies, testing labs and medical practitioners.

Inappropriate consumption of alcohol and drugs is a significant problem for inherently risky work sites. Even if the incidence probability is small – and general population statistics suggest it may not be small – the potential consequences are profound in potential property damage, environmental disasters and human terms: injury, disability or death. A small probability times a large consequence yields a significant risk.

Based on the survey of current medical understanding and our professional experiences in the practice of public health in wellness and injury prevention, we are of the view that Version 6.0 of the Canadian Model provides a holistic, balanced, medically sound approach to mitigating the workplace risks of inappropriate alcohol and drug use. Hopefully, this independent medical opinion adds to the spirit of open and frank discussion of the issues with the ultimate collective and concerted goal of reducing unnecessary injuries and creating a safer work environment and society.

Workers with possible addiction issues need our help no differently than workers with renal disease, respiratory illnesses or diabetes. Addiction is a disease.

But the question still remains: Why do we as a society need to engage in such use of mind-altering substances? Until we can answer that question, we will need to continue having these discussions, as difficult as they are.

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References

- Alberta Health. 2017. Opioids and substances of misuse. Alberta Report 2017, Q3. Retrieved from: <https://open.alberta.ca/dataset/1cfed7da-2690-42e7-97e9-da175d36f3d5/resource/e69ffcb0-6d34-4e2b-bf35-7d13ec35de59/download/Opioids-Substances-Misuse-Report-2017-Q3.pdf>.
- Allan, M. G. et al. 2018. Simplified guideline for prescribing medical cannabinoids in primary care. *Canadian Family Physician*. 66, 111-120.
- American Psychological Association. 2013. *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Ames, G.M., Grube, J.W., & Moore, R.S. 1997. The relationship of drinking and hangovers to workplace problems: An empirical study. *Journal of Studies on Alcohol and Drugs*, 58, 37-47.
- Atkin, J.L., McCardle, M., & Newell, S.J. 2008. The role of advertiser motives in consumer evaluations of 'responsibility' messages from the alcohol industry. *Journal of Marketing Communications*, 14, 315-335.
- Ballantyne, J.C., & LaForge, K.S. 2007. Opioid dependence and addiction during opioid treatment of chronic pain. *Pain*, 129, 235-255.
- Bennett, J.B. & Lehman, W.E.K. 1999. Employee exposure to coworker substance use and negative consequences: The moderating effects of work group membership. *Journal of Health and Social Behavior*, 40, 307-322.
- Bierness, D.J., Beasley, E.E., & Boase, P. 2013. Drug use among fatally injured drivers in Canada. In *20th International Council on Alcohol, Drugs and Traffic Safety Conference*.

- Biron, M., Bamberger, P.A., & Noyman, T. 2011. Work-related risk factors and employee substance use: Insights from a sample of Israeli blue-collar workers. *Journal of Occupational Health Psychology*, 16, 247-263.
- Bolla, K.I., Brown, K., Eldreth, D., Tate, K., & Cadet, J.L. 2002. Dose-related neurocognitive effects of marijuana use. *Neurology*, 59, 1337-1343.
- Bosker, W.M. & Huestis, M.A. 2009. Oral fluid testing for drugs of abuse. *Clinical Chemistry*, 55, 1910-1931.
- Bosker, W.M., Kuypers, K.P.C., Theunissen, E.L., Surinx, A., Blankespoor, R.J., Skopp, G., Ramaekers, J.G. 2012. Medicinal THC (Dronabinol) impairs on-the-road driving performance of occasional and heavy cannabis users but is not detected in standardized field sobriety tests. *Addiction*, 107, 1837-1844.
- Bostwick, J.M. 2012. Blurred boundaries: The therapeutics and politics of medical marijuana. *Mayo Clinic Proceedings*, 87, 172-186.
- Brady, J.E., Baker, S.P., DiMaggio, C., McCarthy, M.L., Rebok, G.W., & Li, G. 2009. Effectiveness of mandatory alcohol testing programs in reducing alcohol involvement in fatal motor carrier crashes. *American Journal of Epidemiology*, 170, 775-782.
- Brass, E.P., Lofstedt, R., & Renn, O. 2011. Improving the decision-making process for nonprescription drugs: A framework for benefit-risk assessment. *Clinical Pharmacology & Therapeutics*, 90, 791-803.
- Budney A.J., Novy, P.L., & Hughes, J.R. 1999. Marijuana withdrawal among adults seeking treatment for marijuana dependence. *Addiction*, 94, 1311-1321.
- Bureau of Labour Statistics. 2017. Census of fatal occupational injuries summary, 2016. Retrieved from: <https://www.bls.gov/news.release/cfoi.nr0.htm>
- Bush, D.M. 2008. The U.S. mandatory guidelines for federal workplace drug testing programs: Current status and future considerations. *Forensic Science International*, 174, 111-119.
- Butler, A.B., Dodge, K.D., & Faurote, E.J. 2010. College student employment and drinking: A daily study of work stressors, alcohol expectancies, and alcohol consumption. *Journal of Occupational Health Psychology*, 15, 291-303.
- Canadian Centre for Occupational Health and Safety. 2017. Workplace Strategies: Risk of Impairment from Cannabis. Retrieved from: <http://www.ccohs.ca/products/publications/cannabis/>.
- Canfield, D.V., Dubowski, K.M., Whinnery, J.E., Lewis, R.J., Ritter, R.M., & Rogers, P.B. 2010. Increased cannabinoids concentrations found in specimens from fatal aviation accidents between 1997 and 2006. *Forensic Science International*, 197, 85-88.
- Cashman, C.M., Ruotsalainen, J.H., Greiner, B.A., Beirne, P.V., & Verbeek, J.H. 2009. Alcohol and drug screening of occupational drivers for preventing injury. *Cochrane Database of Systematic Reviews*, 2, 1-21.
- Center on Alcohol Marketing and Youth. 2007. *Drowned out: Alcohol industry "responsibility" advertising on television, 2001-2005*. Washington, DC: Center on Alcohol Marketing and Youth.
- Centre for Addiction and Mental Health. 2014. Cannabis Policy Framework. Retrieved from: https://www.camh.ca/en/hospital/about-camh/influencing_public_policy/documents/camhcannabispolicyframework.pdf.
- Compton, W.M., Dawson, D.A., Conway, K.P., Brodsky, M., & Grant, B.F. 2013. Transitions in illicit drug use status of 3 years: A prospective analysis of a general population sample. *American Journal of Psychiatry*, 170, 660-670.

- Elliott, K., & Shelley, K. 2007. Effects of drugs and alcohol on behavior, job performance, and workplace safety. *Journal of Employment Counseling*, 43, 130-134.
- Ensuring Solutions. 2003. *Employee Assistance Programs: Workplace opportunities for intervening in alcohol problems*. Washington, DC: George Washington University Medical Center.
- Faerber, A.E. & Kreling, D.H. 2013. Content analysis of false and misleading claims in television advertising for prescription and nonprescription drugs. *Journal of General Internal Medicine*, 29, 110-118.
- Food and Drug Administration. 2012. Drugs@FDA Glossary of Terms. Retrieved from: <http://www.fda.gov/drugs/informationondrugs/ucm079436.htm>.
- Fortner, N.A., Martin, D.M., Esen, S.E., & Shelton, L. 2011. Employee drug testing: Study shows improved productivity and attendance and decreased workers' compensation and turnover. *The Journal of Global Drug Policy and Practice*.
- Frone, M.R. 2008. Are work stressors related to employee substance use? The importance of temporal context assessments of alcohol and illicit drug use. *Journal of Applied Psychology*, 93, 199-206.
- Frone, M.R. 2009. Does a permissive workplace substance use climate affect employees who do not use alcohol and drugs at work? A U.S. national study. *Psychology of Addictive Behaviors*, 23, 386-390.
- Frone, M.R. 2006a. Prevalence and distribution of alcohol use and impairment in the workplace: A U.S. national survey. *Journal of Studies on Alcohol and Drugs*, 67, 147-156.
- Frone, M.R. 2006b. Prevalence and distribution of illicit drug use in the workforce and in the workplace: Findings and implications from a U.S. national study. *Journal of Applied Psychology*, 91, 856-869.
- Frone, M.R., & Brown, A.L. 2010. Workplace substance-use norms as predictors of employee substance use and impairment: A survey of U.S. workers. *Journal of Studies on Alcohol and Drugs*, 71, 526-534.
- Gustavsen, I., Mørland, J., & Bramness, J.G. 2006. Impairment related to blood amphetamine and/or methamphetamine concentrations in suspected drugged drivers. *Accident Analysis and Prevention*, 38, 490-495.
- Hall, W., Christie, M., & Currow, D. 2005. Cannabinoids and cancer: Causation, remediation, and palliation. *The Lancet Oncology*, 6, 35-42.
- Hart, C. & Ksir, C. 2012. *Drugs, Society, & Human Behaviour*. (15th ed.). McGraw-Hill.
- Holmes, N., & Richer, K. 2008. *Drug testing in the workplace*. Parliamentary Information and Research Service.
- Howland, J., Rohsenow, D.J., Cote, J., Gomez, B., Mangione, T.W., & Laramie, A.K. 2001. Effects of low-dose alcohol exposure on simulated merchant ship piloting by maritime cadets. *Accident Analysis and Prevention*, 33, 257-265.
- Huang, D., Hunter, Z., & Francescutti, L.H. 2013. Alcohol, Health, and Injuries. *American Journal of Lifestyle Medicine*, 7, 232-240.
- Hunter, Z. & Francescutti, L.H. 2013. Facing the consequences of binge drinking. *Canadian Family Physician*, 59, 1041-1042.
- Injury Prevention Centre. 2018. Cannabis Legalization and Injuries in Alberta. Retrieved from: <http://edmontonjournal.com/news/local-news/cannabis-injuries-in-alberta-expected-to-spike-following-legalization>.
- Kadehjian, L. 2005. Legal issues in oral fluid testing. *Forensic Science International*, 150, 151-160.
- Kalant, H. 2008. Smoked marijuana as medicine: Not much future. *Clinical Pharmacology & Therapeutics*, 83, 517-519.

- Kleber, H.D., & DuPont, R.L. 2012. Physicians and medical marijuana. *American Journal of Psychiatry*, 169, 564-568.
- Koob, G.F., Ahmed, S.H., Boutrel, B., Chen, S.A., Kenny, P.J., Markou, A., O'Dell, L.E., Parsons, L.H., & Sanna, P.P. 2004. Neurobiological mechanisms in the transition from drug use to drug dependence. *Neuroscience and Biobehavioral Reviews*, 27, 739-749.
- Laslett, A.M., Catalano, P., Chikritzhs, T., Dale, C., Doran, C., Ferris, J., Jainullabudeen, T.A., et al. 2010. *The Range and Magnitude of Alcohol's Harm to Others: Beyond the Drinker: Alcohol's Hidden Costs*. AER Foundation.
- Leirer, V., Yesavage, J.A., & Morrow, D.G. 1991. Marijuana carry-over effects on aircraft pilot performance. *Aviation, Space, and Environmental Medicine*, 62, 221-227.
- Lenné, M.G., Dietze, P., Rumbold, G.R., Redman, J.R., & Triggs, T.J. 2004. The effects of opioid pharmacotherapies methadone, LAAM and buprenorphine, alone and in combination with alcohol, on simulated driving. *Drug and Alcohol Dependence*, 72, 271-278.
- Li, G., Baker, S.P., Zhao, Q., Brady, J.E., Lang, B.H., Rebok, G.W., & DiMaggio, C. 2011. Drug violations and aviation accidents: Findings from the US mandatory drug testing programs. *Addiction*, 106, 1287-1292.
- Li, G., Brady, J.E., DiMaggio, C., Baker, S., & Rebok, G.W. 2010. Validity of suspected alcohol and drug violations in aviation employees. *Addiction*, 105, 1771-1775.
- Logan, B.K., Goldfogel, G., Hamilton, R., & Kuhlman, J. 2009. Five deaths resulting from abuse of Dextromethorphan sold over the internet. *Journal of Analytical Toxicology*, 33, 99-103.
- Lopez-Quintero, C., Hasin, D.S., de los Cobos, J.P., Pines, A., Wang, S., Grant, B.F., & Blanco, C. 2010. Probability and predictors of remission from life-time nicotine, alcohol, cannabis or cocaine dependence: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Addiction*, 106, 657-669.
- Lozano et al. 2012. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: A systematic analysis for the Global Burden of Disease Study 2010. *The Lancet*, 380, 2095-2128.
- Lynskey, M.T., Heath, A.C., Bucholz, K.K., Slutske, W.S., Madden, P.A.F., Nelson, E.C., Statham, D.J., & Martin, N.G. 2003. Escalation of drug use in early-onset cannabis users vs co-twin controls. *JAMA*, 389, 427-433.
- Manchikanti, L. & Singh, A. 2008. Therapeutic opioids: A ten-year perspective on the complexities and complications of the escalating use, abuse, and nonmedical use of opioids. *Pain Physician*, 11, S63-S88.
- McFarlin, S.K., Fals-Stewart, W., Major, D.A., & Justice, E.M. 2001. Alcohol use and workplace aggression: An examination of perpetration and victimization. *Journal of Substance Abuse Treatment*, 13, 303-321.
- McNeilly, B., Ibrahim, J.E., Bugeja, L., & Ozanne-Smith, J. 2010. The prevalence of work-related deaths associated with alcohol and drugs in Victoria, Australia, 2001-6. *Injury Prevention*, 16, 423-428.
- Mehay, S.L., & Pacula, R.L. 1999. The effectiveness of workplace drug prevention policies: Does 'zero tolerance' work? National Bureau of Economic Research, NBER Working Paper 7383.
- Merrick, E.S., Volpe-Vartanian, J., Horgan, C.H., & McCann, B. 2007. Revisiting employee assistance programs and substance use problems in the workplace: Key issues and a research agenda. *Psychiatric Services*, 58, 1262-1264.

- Moss, A.C. & Albery, I.P. 2009. A dual-process model of the alcohol-behavior link for social drinking. *Psychological Bulletin*, 135, 516-530.
- Müller, C.P. & Schumann, G. 2011. Drugs as instruments: A new framework for non-addictive psychoactive drug use. *Behavioral and Brain Sciences*, 34, 293-347.
- Musshoff, F. & Madea, B. 2012. Driving under the influence of amphetamine-like drugs. *Journal of Forensic Sciences*, 57, 413-419.
- National Center for Health Statistics. 2006. Results from the 2006 national survey on drug use and health: National findings. National Center for Health Services Research, Health, Rockville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics.
- National Post. 2018. Platt, B. How much cannabis could you smoke and stay under the proposed legal limit for driving? The answer may be zero. Retrieved from: <http://nationalpost.com/news/politics/how-much-cannabis-is-safe-to-consume-before-driving-nobody-knows-but-were-setting-legal-limits-anyway>.
- O'Brien, C. 2010. Addiction and dependence in DSM-V. *Addiction*, 106, 866-867.
- O'Connell, T.J. & Bou-Matar, C.B. 2007. Long term marijuana users seeking medical cannabis in California (2001-2007): Demographics, social characteristics, patterns of cannabis and other drug use of 4117 applicants. *Harm Reduction Journal*, 4, 1-7.
- Pennings, E.J.M., Leccese, A.P., & de Wolff, F.A. 2002. Effects of concurrent use of alcohol and cocaine. *Addiction*, 97, 773-783.
- Peretti-Watel, P., Constance, J., Seror, V., & Beck, F. 2009. Working conditions, job dissatisfaction and smoking behaviours among French clerks and manual workers. *Journal of Occupational and Environmental Medicine*, 51, 343-350.
- Ramaekers, J.G., Moeller, M.R., van Ruitenbeek, P., Theunissen, E.L., Schneider, E., & Kauert, G. 2006. Cognition and motor control as a function of delta 9-THC concentration in serum and oral fluid: Limits of impairment. *Drug and Alcohol Dependence*, 85, 114-122.
- Raphael, B., Wooding, S., Stevens, G., & Connor, J. 2005. Comorbidity: Cannabis and complexity. *Journal of Psychiatric Practice*, 11, 161-176.
- Reinarman, C., Nunberg, H., Lanthier, F., & Heddleston, T. 2011. Who are medical marijuana patients? Population characteristics from nine California assessment clinics. *Journal of Psychoactive Drugs*, 43, 128-135.
- Roman, P.M. & Blum, T.C. 2002. *The workplace and alcohol problem prevention*. Maryland, U.S.: National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism.
- Saha, T.D., Stinson, F.S., & Grant, B.F. 2006. The role of alcohol consumption in future classifications of alcohol use disorders. *Drug and Alcohol Dependence*, 89, 82-92.
- Sinha, R. 2008. Chronic stress, drug use, and vulnerability to addiction. *Annals of the New York Academy of Sciences*, 1141, 105-130.
- Smith, A., Wadsworth, E., Moss, S., & Simpson, S. 2004. The scale and impact of illegal drug use by workers. Cardiff, UK: Health and Safety Executive Books.
- Snowden, C.B., Miller, T.R., Waehrer, G.M., Spicer, R. 2007. Random alcohol testing reduced alcohol-involved fatal crashes of drivers of large trucks. *Journal of Studies on Alcohol and Drugs*, 68, 634-640.
- Stallones, L. & Xiang, H. 2003. Alcohol consumption patterns and work-related injuries among Colorado farm residents. *American Journal of Preventive Medicine*, 25, 25-30.

- Substance Abuse and Mental Health Services Administration, Office of Applied Studies. 1996. Drug Use Among U.S. Workers: Prevalence & Trends by Occupation and Industry. Retrieved from: <http://www.samhsa.gov/data/work1996/toc.htm>.
- Toennes, S.W., Kauert, G.F., Steinmeyer, S., & Moeller, M.R. 2005. Driving under the influence of drugs – evaluation of analytical data of drugs in oral fluid, serum and urine, and correlation with impairment symptoms. *Forensic Science International*, 152, 149-155.
- United States – Department of Transportation. 2017. Procedures for Transportation Workplace Drug and Alcohol Testing Programs: Addition of Certain Schedule II Drugs to the Department of Transportation's Drug-Testing Panel and Certain Minor Amendments. Retrieved from: <https://www.federalregister.gov/documents/2017/11/13/2017-24397/procedures-for-transportation-workplace-drug-and-alcohol-testing-programs-addition-of-certain>.
- Walsh, D.C., et al. 1991. A randomized trial of treatment options for alcohol-abusing workers. *The New England Journal of Medicine*, 11, 775-782.
- Wesley, M.J., Hanlon, C.A., & Porrino, L.J. 2011. Poor decision-making by chronic marijuana users is associated with decreased functional responsiveness to negative consequences. *Psychiatry Research: Neuroimaging*, 181, 51-59.
- Whiteford et al. 2013. Global burden of disease attributable to mental and substance use disorders: Findings from the Global Burden of Disease Study 2010. *The Lancet*, 382, 1575-1586.
- Wickizer, T.M., Kopjar, B., Franklin, G., & Joesch, J. 2004. Do drug-free workplace programs prevent occupational injuries? Evidence from Washington State. *Health Services Research*, 39, 91-110.
- Wood, E., McKinnon, M., Strang, R., & Kendall, P.R. 2012. Improving community health and safety in Canada through evidence-based policies on illegal drugs. *Open Medicine*, 6, e35-340.
- Workplace Safety North. 2017. Is your drug and alcohol policy up to date? Retrieved from: <https://www.workplacesafetynorth.ca/news/news-post/your-drug-and-alcohol-policy-date-0>.
- WorkSafe Victoria. 2017. Guide for developing a workplace alcohol and other drugs policy. Edition No. 1 Retrieved from: https://www.worksafe.vic.gov.au/data/assets/pdf_file/0019/207172/ISBN-Guide-for-developing-workplace-alcohol-drugs-policy-2017-03.pdf.
- World Health Organization. 2011. *Occupational health. Workplace health promotion*. Geneva: World Health Organization.
- Zernig, G., Ahmed, S.H., Cardinal, R.N., Morgan, D., Acquas, E., Foltin, R.W., Vezina, P., et al. 2007. Explaining the escalation of drug use in substance dependence: Models and appropriate animal laboratory tests. *Pharmacology*, 80, 65-119.