

**The Honourable Serge Joyal, PC
Chair, Senate Committee on Legal & Constitutional Affairs
Senate of Canada
Ottawa, Ontario
K1A 0A4**

Via Email: serge.joyal@sen.parl.gc.ca and lcjc@sen.parl.gc.ca

March 5, 2018

Dear Senator Joyal and Honourable Committee Members,

Re: Bill C-46, An Act to amend the Criminal Code – Drug Testing Systems

Draeger Safety Canada Ltd. (Draeger) thanks the Senate Committee on Legal & Constitutional Affairs for the opportunity to provide comments on the proposed Bill C-46, *An Act to amend the Criminal Code (offences relating to conveyances)*.

Draeger is an international leader in the fields of medical and safety technology. For over 125 years, Draeger has operated in the fields of breath alcohol and drug screening. Our devices have helped police identify impaired drivers and workers, and provided evidential information in courtrooms the world over. Our global network is extensive, with approximately 13,500 employees, represented in more than 190 countries.

Draeger strongly supports the Government of Canada's efforts to enhance its impaired driving laws through Bill C-46. Drug-impaired driving is an increasingly critical issue and the policies set out by Bill C-46 will help advance and streamline the use of modern drug-testing technology. Since their inception in 2008, Draeger's drug testing systems have been chosen by law enforcement agencies, around the globe, including the U.S., Ireland, the U.K, Australia and continental Europe due to their excellent reliability and accuracy. Draeger has extensive experience in precise and credible oral fluid drug testing technology, providing effective training for use, and managing storage and integrity of data and records. Based on our extensive experience, we ask the Committee to consider the following:

- **Oral fluid drug screening can be conducted by police with ease, providing accurate results within minutes;**
- **Oral fluid testing is more closely aligned to blood testing than any other method of drug test collection, such as urine, hair or nail specimens, and;**
- **Oral fluid screening devices are considered an important tool by police forces around the globe in support of road side drug detection for impaired drivers.**

The Draeger DrugTest 5000 is a commercially available product that can accurately detect the presence of THC (the active by-product in cannabis) in concentrations as low as 5ng/mL as well as the presence of six other classes of drugs with a simple, non-invasive mouth swab.

As the Committee proceeds with its study, we strongly recommend it looks to bolster the Government's commitments to supporting law enforcement as they prepare for the changes being brought forth by Bill C-46. Oral fluid screening devices are meant to aid, but not eliminate, the need for officers trained as Drug Recognition Experts (DRE) and in the Standardized Field Sobriety Tests. Providing officers with oral fluid screening devices and enhanced skills in the recognition of signs and symptoms of drug use will enhance the DRE program, increase competency in the use of roadside drug test equipment and bolster their ability to enforce drugged driving legislation.

We acknowledge that the government has set Canada-specific *per se* levels for road side drug testing. Roadside drug testing supports the ability of police to identify drivers under the influence of drugs through this approach. However, recognizing that there is no substantive and consistent scientific evidence upon which to base *per se* limits, we ask that the Committee calls for additional research related to drug concentration and the level of impairment.

We have appended to this letter additional observations and recommendations for the Committee's consideration, as well as some operational details on our oral fluid screening device, the Draeger DrugTest 5000 system. Draeger is a committed partner in supporting the Government of Canada's efforts to ensure law enforcement is prepared to combat alcohol and drug-impaired driving.

Should you have any questions about our submission or the use of oral fluid screening devices, please do not hesitate to contact me directly.

Sincerely,



Einat Velichover
Manager, Diagnostic Portfolio
416-518-8638

Einat.velichover@draeger.com

cc: Rob Clark – Managing Director, Draeger Safety Canada Ltd.

Appendix 1 – Draeger Safety Canada Ltd. Bill C-46 Observations and Recommendations

About Draeger Safety Canada

Draeger Safety Canada Ltd. is a subsidiary of Dräger, an international leader in the fields of medical and safety technology. Since 1889, Dräger has developed advanced technical devices and solutions trusted by users all over the world. No matter where Dräger products are used, it's always about life. Whether for use in clinical, industrial or mining applications, in firefighting or rescue services, Dräger products protect, support and save lives.

One of our leading products is the Draeger DrugTest 5000 system; a fast, accurate means of testing oral fluid samples for drugs, such as amphetamines, designer amphetamines, opiates, cocaine and metabolites, benzodiazepines, and cannabinoids. Due to its broad global reach, the DrugTest 5000 screening system has undergone extensive, independent, scientific validation worldwide. Several thousand Draeger DrugTest 5000 units are broadly used across Europe and Australia and currently in field use or pilot programs by law enforcement agencies and Drug Recognition Expert (DRE) officers in more than a dozen states in the U.S.

Additionally, there are many leading Canadian industries already using the Draeger DrugTest 5000 for workplace testing and in safety sensitive positions, specifically in the oil and mining sectors.

Drug Screening Detection & Approaches

Drug abuse is commonplace, as are its dangerous effects. The use of drugs as an intoxicant has increased dramatically worldwide – lead by cannabis, as well as opiates (such as heroin), cocaine and amphetamine-type stimulants, like ecstasy, speed, and crystal meth.

Driving a motor vehicle after consuming alcohol or other psychoactive substances is a major factor to a substantial number of car collisions. Such incidents can be avoided and prevented.

Unlike alcohol, it is not possible to detect the consumption of these illegal drugs with a simple breath test. Traditionally, drug detection is facilitated using elaborate blood analysis techniques. Taking blood, however, is often too time-consuming and invasive for spontaneous spot checks, such as on the roads, at the workplace, at customs or in prison.

Following the lessons learned from road side breath alcohol tests, presumptive drug tests have provided reliable, on-the-spot results quickly and without the need for trained medical staff. Since its inception, oral fluid screening technology has improved rapidly. Drug testing kits now function with the ease and speed of alcohol breath tests and have made the work of police significantly easier. They have been found to be an effective tool in support of determining drug impairment by drivers and their use has been incorporated into domestic laws governing road safety.

As an example, for most European Union (EU) member states, the police have the authority to stop a vehicle and to perform a standardized test to check for alcohol

consumption. However, for illicit substances, this power is given in a limited form. Most EU member states permit police to check the driver for use of drugs if there are signs or symptoms of drug impairment or on the grounds of reasonable suspicion. Only in very specific situations, such as a crash, do some member states authorize police to check the drivers involved for the use of psychoactive substances. This power is considered a “post-crash” power of the police. For road safety purposes, many EU member states will grant similar powers to police in the “pre-crash” phase.

Prior to any screening test, officers will conduct several reaction, coordination and divided attention tests. The results of these preliminary tests, combined with the oral fluid screening test, can lead to a situation whereby the officer can conclude with reasonable certainty that the driver has a psychoactive substance in their system. These preliminary tests are comparable to the protocols followed by Drug Recognition Experts (DRE) as currently administered by the RCMP and other police agencies across Canada. It is important to keep in mind that not all drug users will display signs of impairment. According to police in EU member states, individuals suspected of driving a motor vehicle while impaired by an illicit substance will typically be subjected to an assessment with a drug screening test as part of the overall evaluation process.

In Australia, the government and police are extremely committed to random roadside testing programs. With their popularity increasing in recent years, the Australian Police are expected to perform 600,000 tests by 2020 using the Draeger DrugTest 5000, among others.

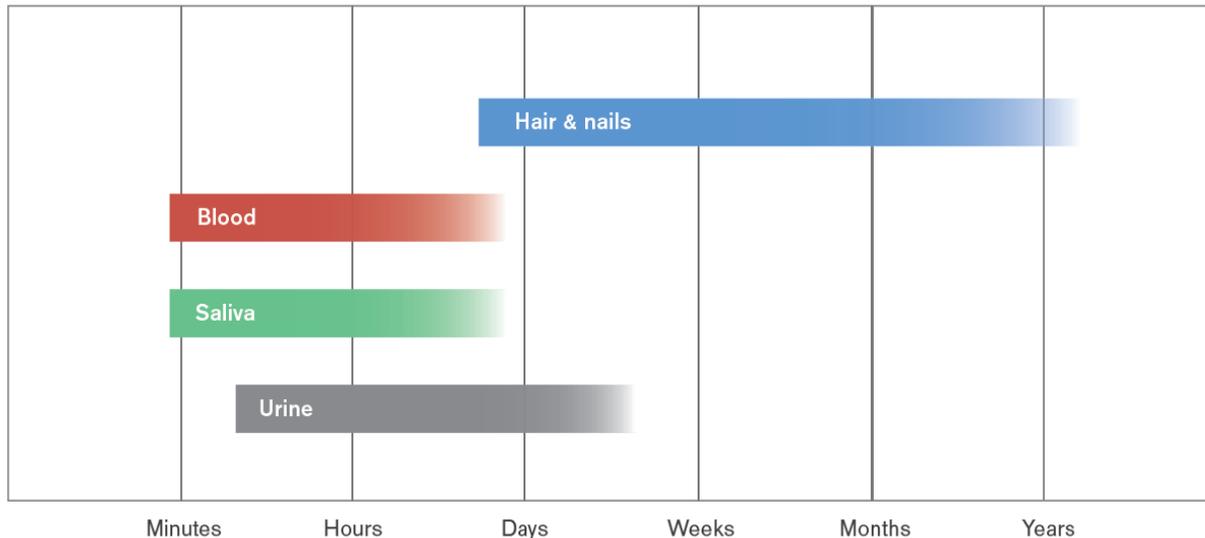
GLOBAL CONSUMPTION OF ILLEGAL DRUGS	
Drug Consumption*	Consumption*
Cannabis	2.5 – 5.0%
Opiates and opioids (e.g. heroin)	0.3 – 0.8%
Cocaine	0.3 – 0.4%
Amphetamine and similar drugs	0.3 – 1.2%
Methamphetamine (e.g. ecstasy)	0.2 – 0.4%
Other drugs	3.4 – 6.6%

* Minimum and maximum estimates of the population in percentage terms.
Source: UNDOC 2012; 1.) Central question: How high is the amount of people between 15 and 64 years who have used the drug in the last 12 months?

Saliva: fast and reliable

Testing saliva specimens for drug substances is a real alternative to blood.¹ Like blood, saliva can yield reliable information regarding the acute influence of drugs on a test subject. It is widely accepted that blood, and to a lesser degree, oral fluid, are likely to give the most accurate measurement of drugs currently active in the body.² Oral fluid testing is more closely aligned to blood testing than any other method of test collection, such as urine testing or the collection of hair or nail specimens.

Saliva is similar to blood in its suitability for drug testing. It is comprised of around 99 percent water, which comes out of the blood vessels into the salivary glands, and brings with it many soluble substances into the mouth and throat – including the active substances found in drugs.



*Analytical detection timeframe for different test materials Source: Caplan, Y.H., Goldberger, B.A. (2001):
Alternative specimens for workplace drug testing. J Anal Toxicol. 2001 Jul-Aug;25(5):396-9.*

One of the principle benefits of oral fluid drug screening is that it is much more effective in identifying recent drug use than urine, sweat or hair testing. As well, a specimen can be obtained in a non-invasive manner to test for acute impairment of the person; during a routine traffic check, for example. Saliva can be taken on the spot – easily, quickly and reliably – under constant supervision, hygienically, and without any need for special facilities or the infringement of a person’s privacy. The time and staff costs involved are much lower than for urine tests, and produces a credible result supporting the drug testing process.

¹ Johns Hopkins University – Article: Spit Please (2012) - Website: <https://hub.jhu.edu/magazine/2012/summer/spit-please/>

² U.K. Government – Expert Panel Review of alternative biological matrices for use as an evidential sample for drug driving (July 2017) – Website: <https://www.gov.uk/government/publications/review-of-oral-fluid-alternative-biological-matrices-for-drug-driving>

Saliva - perfectly suited for presumptive tests

Presumptive tests for illegal drugs can now be performed with a saliva sample as easily as breath alcohol tests. This enables spontaneous checks anytime and anywhere at a low cost for law enforcement, all the while leading to increased road safety. Current devices for a saliva test return results that coincide with blood analyses, yielding an overall accuracy rate of up to 95%.

Devices are also capable of precisely and simultaneously detecting up to eight different substance classes, including cannabis, amphetamines, methamphetamines, opiates, cocaine and methadone. Devices can detect the cannabis component THC at a miniscule 5 nanograms per millilitre of saliva – just a few minutes after taking the sample.

Per Se Limits and Canada's Approach

Per se limits set out the concentration of a drug in the body at a level which is then considered an offence to operate a motor vehicle. Unlike alcohol, one of the challenges is that there is no substantive and consistent scientific evidence upon which to base *per se* limits for drugs. Traditionally, *per se* limits have been applied to alcohol as the approach has been supported by the epidemiological relationship between blood alcohol concentration and impairment. In the case of drugs, there are several challenges to applying *per se* limits, such as how long the substances take to breakdown with respect to detection and the corresponding relationship of impairment.

As it stands, Canada has proposed to utilize the *per se* method. Taking this approach into account, ensuring access to devices with high sensitivities for clear drug detection becomes vital. For many jurisdictions that apply a *per se* limit, they rely on the Draeger Drug Test 5000 for its performance and proven reliability. Currently, the Draeger Drug Test 5000 achieves the lowest detection threshold for cannabis at 5 ng/ml.

As Canada proceeds, it will be important to consider the broader challenges with *per se* limits, especially as it relates to cocaine. As outlined by the Canadian Society of Forensic Sciences (CSFS), Drugs & Driving Committee report titled, *Report on Drug Per Se Limits (2017)*, cocaine is susceptible to degradation in the body and in a collection tube; therefore, timely collection, preservative and proper storage conditions, and timely analysis are important. While the CSFS committee recommends a cocaine *per se* limit of 30 ng/mL in the blood, the CSFS Committee's Approval Standards for Drug Screening Equipment use a cut off of 50ng/mL, is the highest limit we have seen in all the countries in which we work. We understand that various factors were considered when selecting the *per se* limit. With a cut off as low as 20 ng/mL, the Draeger DrugTest 5000 has worked effectively to produce credible results and support law enforcement in their goal of improved public safety. This being said, with the overall goal of ensuring *per se* levels meet the goals of the government, we recommend additional investment in more research to understand the relationship between impairment levels, cocaine intoxication, and incidences of car crashes.

Case Study Example – United Kingdom and Draeger Oral Screening Device

Draeger has been working with police forces in the U.K for over 47 years. Our relationship has been built on a mutual objective, that of saving lives. We have worked with successive government departments, police constables, and road safety officers to develop leading, globally-recognized products.

In 2015, the Draeger Drug Test 5000 became one of the first drug detection kits used by police forces across the U.K, having completed rigorous testing at the British Home Office's centre for applied science and technology (CAST). The approval came 45 years after Draeger became the first company in the U.K to get approval on a breathalyser - the Alcotest 80 tube.

The Drug Test 5000 was approved for stationary and mobile use for police forces to detect cannabis (THC) and cocaine. Outside the conditions of the U.K approval, the system is capable of testing a much wider range of drugs in other jurisdictions (e.g. Europe, Australia, and Asia) including Amphetamines, Methamphetamines, designer drugs (e.g. ecstasy), Opiates, Methadone and Ketamine, as well as unknown substances as it recognises familial resemblances in the substances listed above.



Since 2008, police forces around the globe have utilized the Draeger Drug Test 5000. It has allowed them to perform roadside drug screening with ease and receive results within minutes. With this test system, police officers can easily collect oral fluid samples, examine them within a few minutes, read them with certainty and then manage the data. The integrated storage system holds up to 500 individual measuring results.

Recommendation #1: Bolstering Law Enforcement Capacity

Though a lot of attention has been directed towards cannabis, impaired driving is a much wider problem involving more than just this specific drug. Canadian Drug Recognition Evaluators (DREs) who are already conducting roadside tests have found that cannabis is only a small part of the problem. The mixing of cannabis with other drugs and the use of harder drugs is becoming an increasing issue.

Draeger strongly recommends that the Government bolster its commitments to supporting law enforcement as it prepares for the changes being brought forth by Bill C-46 and Bill C-45. Oral fluid screening devices are meant to aid, but not eliminate, the need for DRE officers. Providing officers with oral fluid screening devices and enhanced skills in the recognition of signs and symptoms of drug use will enhance the DRE program and bolster their ability to enforce drugged driving legislation.

A strong DRE program is an essential component in the enforcement of drug-impaired driving laws. More officers will be needed to ensure that all suspected drug-impaired drivers can be evaluated within a reasonable time following arrest. Oral fluid screening devices have the potential to be a valuable tool for officers engaged in drug-impaired driving enforcement.

Recommendation #2: Bolstering Funding for Additional Research on *Per Se* Limits

Recognizing the clear challenges associated with *per se* limits, we strongly recommend the government allocate resources for more research into drug concentration and impairment. Greater study into this issue will assist the ongoing work of organizations like the Canadian Society of Forensic Sciences.

Recommendation #3: Strengthen Public Education on Drug Driving

Under the terms for enacting, enforcing and prosecuting under Bill C-46, bolstering education programs to address drug driving is vital. We have witnessed several efforts by other governments to develop programing to inform the public and raise awareness and knowledge surrounding this issue.

Draeger strongly recommends the Committee calls for a larger commitment by the Government for a well-funded and coordinated public education program against drug driving that goes beyond the initial commitments voiced by Government. This should include educating the public

more about the effectiveness and credibility of the DRE program and roadside drug testing. As a comparative example, in Ireland, following the passage of their *Road Traffic Act* in December 2016, the Irish Garda (Police) started using the Draeger DT 5000 and issued several videos to increase public awareness³ ⁴. The public knows little about drug driving – what drugs have the ability to impair and how, the risks of driving while impaired, the contribution of drug driving to collisions, injuries, and fatalities, and the laws and penalties for driving under the influence.

³ Road Safety Authority (RSA) Ireland – Gardai Anti-Drug Video (April 2017) – Website:

<https://www.youtube.com/watch?v=wliKm5dFiwA&list=PLi8nqrsVU6ht5zRIYoQRqldTM4zPbfkTH&index=12>

⁴ Road Safety Authority (RSA) Ireland – Gardai Anti-Drug Video (April 2017) – Website:

<https://www.youtube.com/watch?v=7deHMyLsaGw>