



Approval of Amendments for: REGDOC-2.2.4, *Fitness for Duty, Volume II: Managing Alcohol and Drug Use*





PURPOSE

Request for approval of amendments to
REGDOC-2.2.4, *Fitness for Duty, Volume II:
Managing Alcohol and Drug Use*



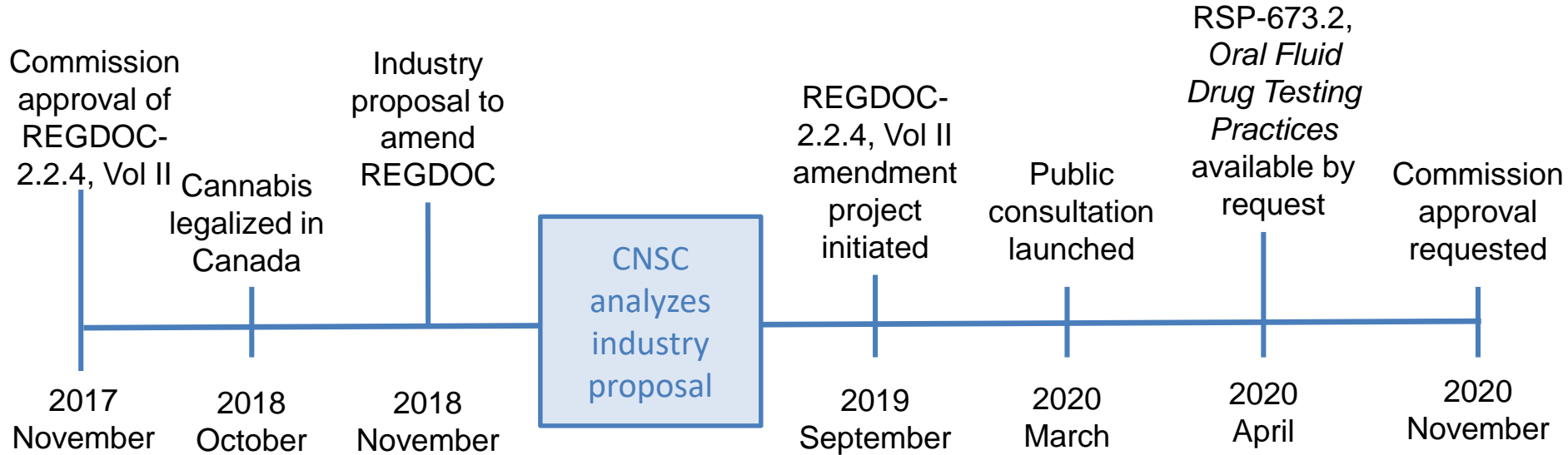
OUTLINE

- ✓ Timeline
- ✓ Objectives of REGDOC
- ✓ CNSC's regulatory framework
- ✓ Current content of published version
- ✓ Public consultation including key Issues
- ✓ Cannabis oral fluid cut-offs
- ✓ Implementation
- ✓ Conclusion & Recommendation





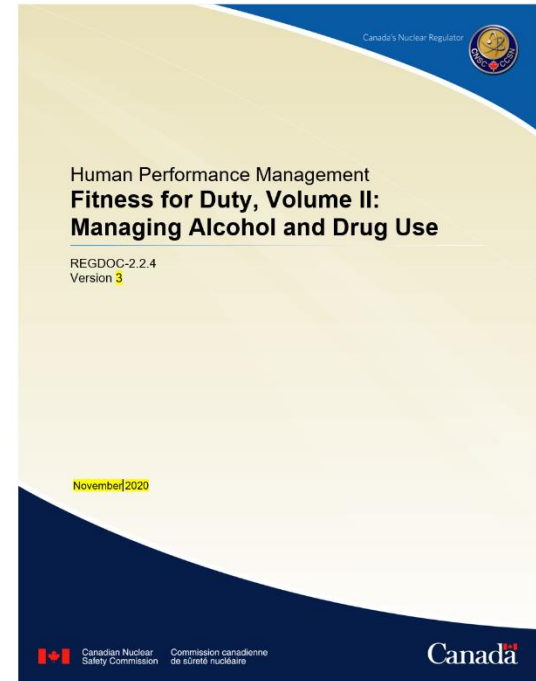
TIMELINE





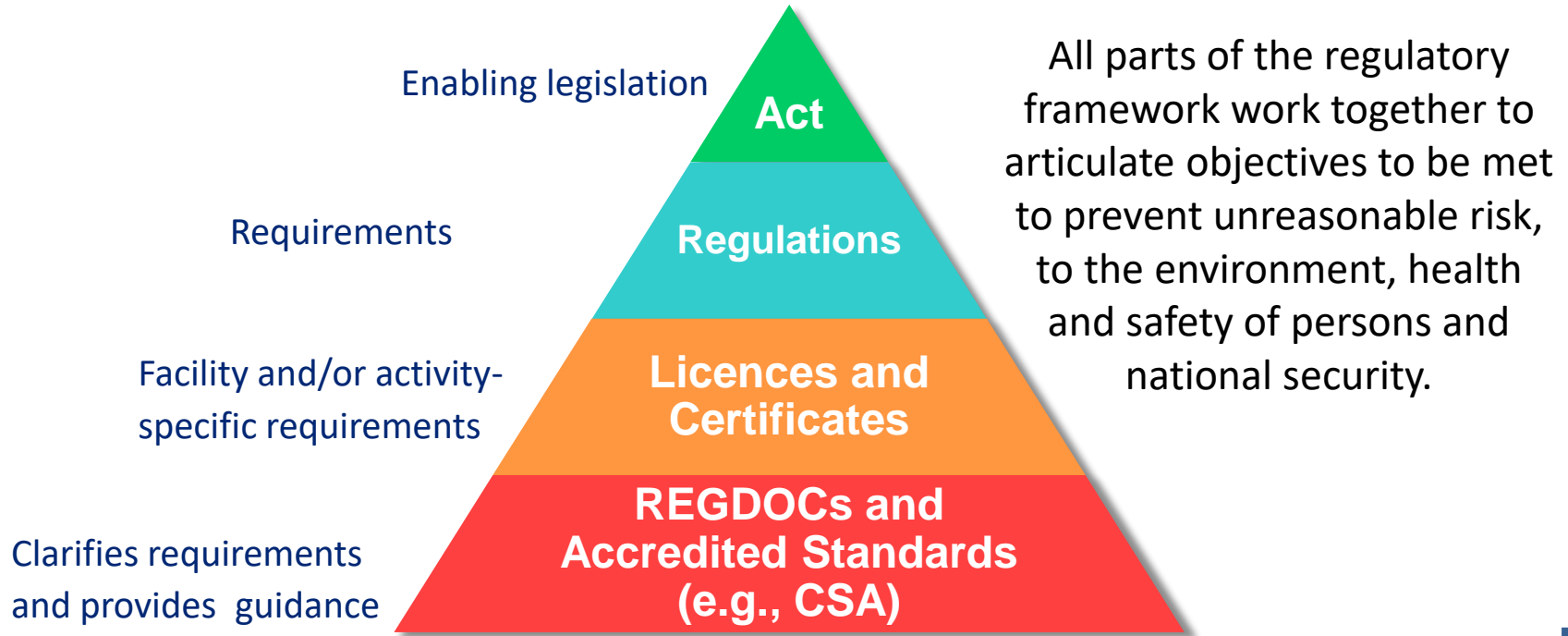
OBJECTIVES OF AMENDMENTS

- Reflects current advances in science, technology & infrastructure
- Amendments increased flexibility for testing methodologies and takes into account legalization of cannabis





THE CNSC'S REGULATORY FRAMEWORK





REGDOC STRUCTURE

1.0 Regulated Facilities and Activities

- 1.1 Reactor Facilities
- 1.2 Class IB Facilities
- 1.3 Uranium Mines and Mills
- 1.4 Class II Facilities
- 1.5 Certification of Prescribed Equipment
- 1.6 Nuclear Substances and Radiation Devices

2.0 Safety and Control Areas

- 2.1 Management System
- **2.2 Human Performance Management**
 - 2.2.1 Human Factors
 - 2.2.2 Personnel Training
 - 2.2.3 Personnel Certification
 - 2.2.4 Fitness for Duty
 - 2.2.4, Fitness for Duty, Managing Worker Fatigue
 - *2.2.4, Fitness for Duty, Volume II: Managing Alcohol and Drug Use*
 - 2.2.4, Fitness for Duty, Volume III: Nuclear Security Officer Medical, Physical, and Psychological Fitness
 - 2.2.5 Minimum Staff Complement

- 2.3 Operating Performance
- 2.4 Safety Analysis
- 2.5 Physical Design
- 2.6 Fitness for Service
- 2.7 Radiation Protection
- 2.8 Conventional Health and Safety
- 2.9 Environmental Protection
- 2.10 Emergency Management and Fire Protection
- 2.11 Waste Management
- 2.12 Security
- 2.13 Safeguards and Non-Proliferation
- 2.14 Packaging and Transport

3.0 Other Regulatory Areas

- 3.1 Reporting Requirements
- 3.2 Public & Indigenous Engagement
- 3.3 Financial Guarantees
- 3.4 Commission Proceedings
- 3.5 CNSC processes and practices
- 3.6 Glossary of CNSC terminology



REGDOC DEVELOPMENT PROCESS





CURRENT CONTENT OF PUBLISHED VERSION 2

- Applies to high-security nuclear sites
- Includes a comprehensive set of requirements and guidance:
 - Policy statements on alcohol and drug use
 - Program requirements including support for workers
 - Alcohol and urine-based laboratory drug testing for safety-critical and safety-sensitive positions

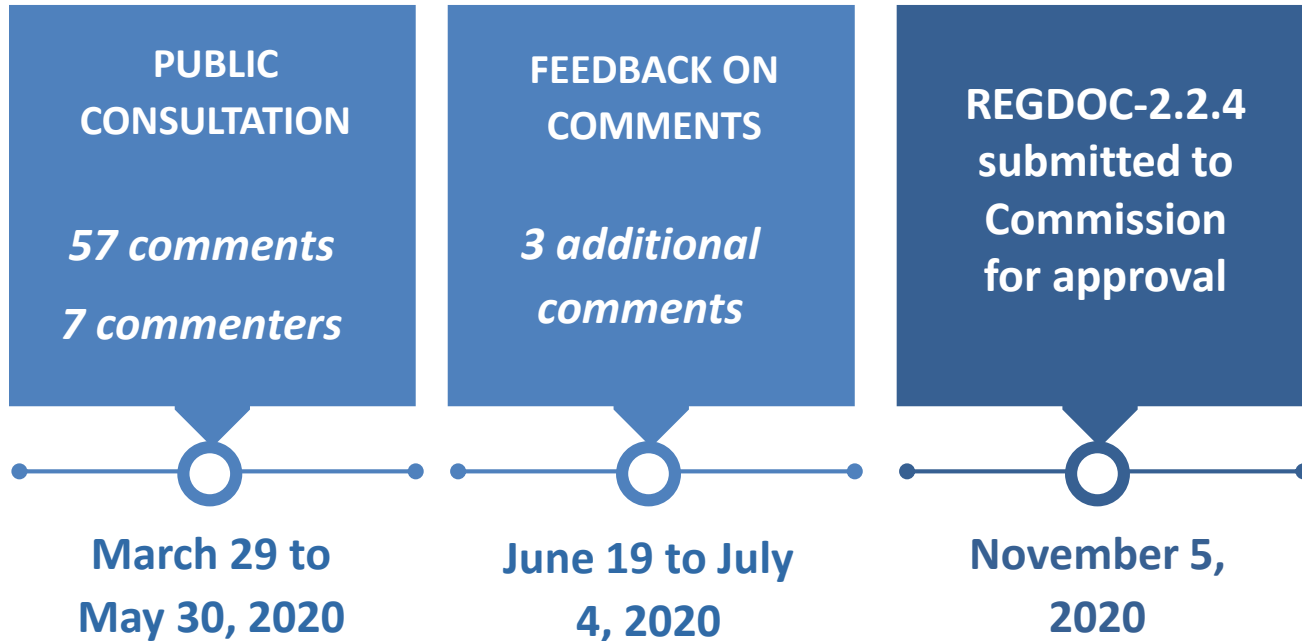


SCOPE OF AMENDMENT FOR VERSION 3

- Licensees requested REGDOC amendment to add oral fluid testing and Point of Collection Testing (POCT) for cannabis
- Draft version 3 provides increased flexibility:
 - Oral fluid testing allowed for all drugs
 - POCT (urine or oral fluid) allowed for all drugs
 - Oral fluid cut-offs added
- Minor changes to policy guidance as a result of cannabis legalization



PUBLIC CONSULTATION



Public consultation focused on proposed changes in the amendment



FEEDBACK THEMES

- Point of Collection Testing (POCT)
 - Clarity of use
 - Reliability/quality assurance measures
 - Training and competency of collectors
- Laboratory accreditation
- Oral fluid testing cut-offs for cannabis

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CONCERN 1: POINT OF COLLECTION TESTING

Issue:

- Stakeholders raised concerns about the scope of use and reliability of POCT devices, and training of POCT collectors

CNSC Response:

- Further restricted use of POCT
- Clarified training and competency requirement for POCT specimen collectors
- Modified quality assurance measures for POCT devices



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CONCERN 2: LABORATORY ACCREDITATION

Issue:

- No Canadian laboratory accredited for oral fluid testing

CNSC Response:

- Dynacare laboratory actively seeking Substance Abuse and Mental Health Services Administration (SAMHSA) accreditation
- REGDOC allows use of ISO 17025 accredited laboratories as well

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CONCERN 3: ORAL FLUID TESTING CUT-OFFS FOR CANNABIS

Issue:

- Stakeholders raised concerns with the proposed cut-offs of 5 ng/mL and 2 ng/mL for screening and confirmation
 - Unions and industry raised concerns that the cutoffs were too low
 - Unions remained opposed to testing, but proposed higher cutoffs in-line with those used for roadside testing (25-15 ng/mL screening, minimum 5 ng/mL confirmation)
 - Industry proposed 10 ng/mL screening and 10 ng/mL confirmation cut-offs (Toronto Transit Commission)

CNSC Response:

- Revised cut-offs to 10 ng/mL for screening and 5 ng/mL for confirmation



CANNABIS IMPAIRMENT

- Impairment window varies by:
 - Effect; frequency of use; by route of administration (smoking, vaping, ingesting edibles) & doses
- Acute impairment estimates range from 3 – 12 hours
- Longer term impairment has been observed up to 30 days



COMPARISON OF ORAL FLUID CANNABIS CUT-OFFS

- The cut-off selected (higher vs. lower) is directly related to how recently, and for how long, the cannabis was consumed
- The cut-off affects the length of time a person will test positive since last cannabis use; as cut-offs decrease, the detection times increase

25 ng/mL

detects up to

≈ 4 hours

since cannabis use ¹

10 ng/mL

detects up to

≈ 10 hours

since cannabis use ²

5 ng/mL

detects up to

≈ 12 hours

since cannabis use ³

2 ng/mL

detects up to

≈ 24 hours

since cannabis use ³

1. Canadian Society of Forensic Sciences Drugs and Driving Committee, Report on Drug Screening Equipment – POCT screening
2. RSP-673.2, Dr. M. Huestis Report to the CNSC (up to 5 h occasional users; 10 h frequent users) – confirmation testing
3. Dr. Drummer, Report to the Power Workers' Union and Society of United Professionals – confirmation testing



BENCHMARKING CANNABIS ORAL FLUID CUT-OFFS

Source	Organization	Screening (ng/mL)	Confirmation (ng/mL)
Benchmarking (see RSP-673.2)	Canadian Criminal Code - Driving	25	Blood test (2-5 ng/mL)
	Australia – AS/NZS 4760	15	5
	Toronto Transit Commission	10	10
	European Workplace Drug Testing Society	10	2
	Construction Owners Association of Alberta	4	2
	Construction Opportunities Development Council	4	2
	UK SYNLAB	4	2
	US SAMHSA	4	2

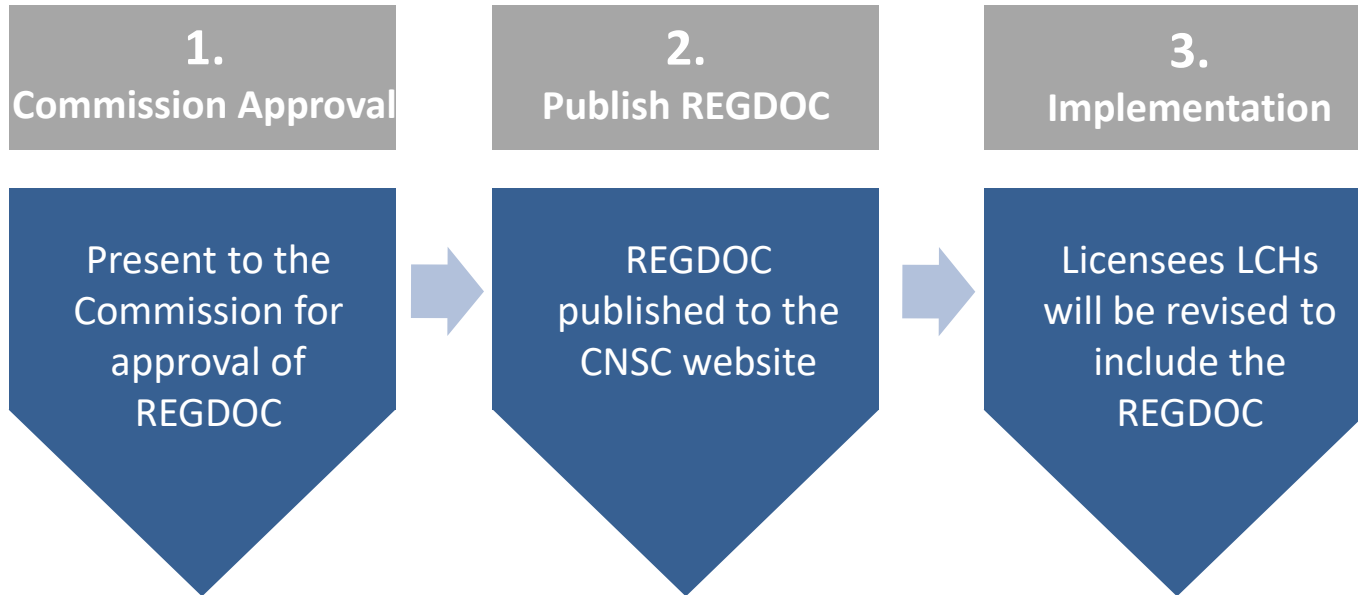


REGDOC CANNABIS CUT-OFFS

- REGDOC-2.2.4, Volume II, version 3 proposes cut-offs of 10 ng/mL screening and 5 ng/mL confirmation
- CNSC staff conclude the proposed cut-offs:
 - Provide a good indicator of risk of acute impairment
 - Are based on current science, best practice, expert advice, and public consultation
 - Respects human rights, including privacy rights



CONSISTENT APPROACH TO IMPLEMENTATION





CONCLUSION

The revised REGDOC-2.2.4:

- Provides additional flexibility related to alcohol and drug testing methodologies
- Reflects legalization of cannabis
- Is supported by a strong scientific basis
- Was developed with meaningful stakeholder consultation



RECOMMENDATION

CNSC staff recommend the Commission approve amendments to REGDOC-2.2.4, *Fitness for Duty, Volume II: Managing Alcohol and Drug Use*



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