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# Explosives Regulatory Division

CEAEC Update,  
Nov. 18, 2021



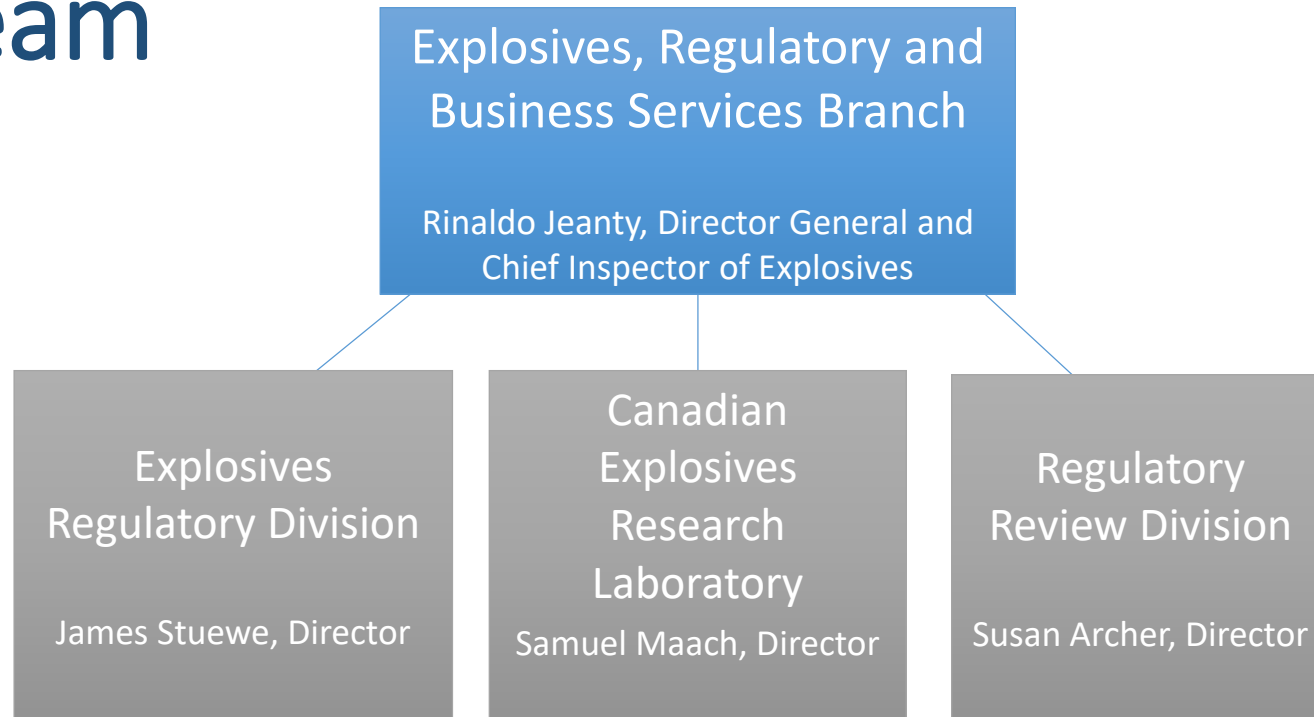
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# Agenda

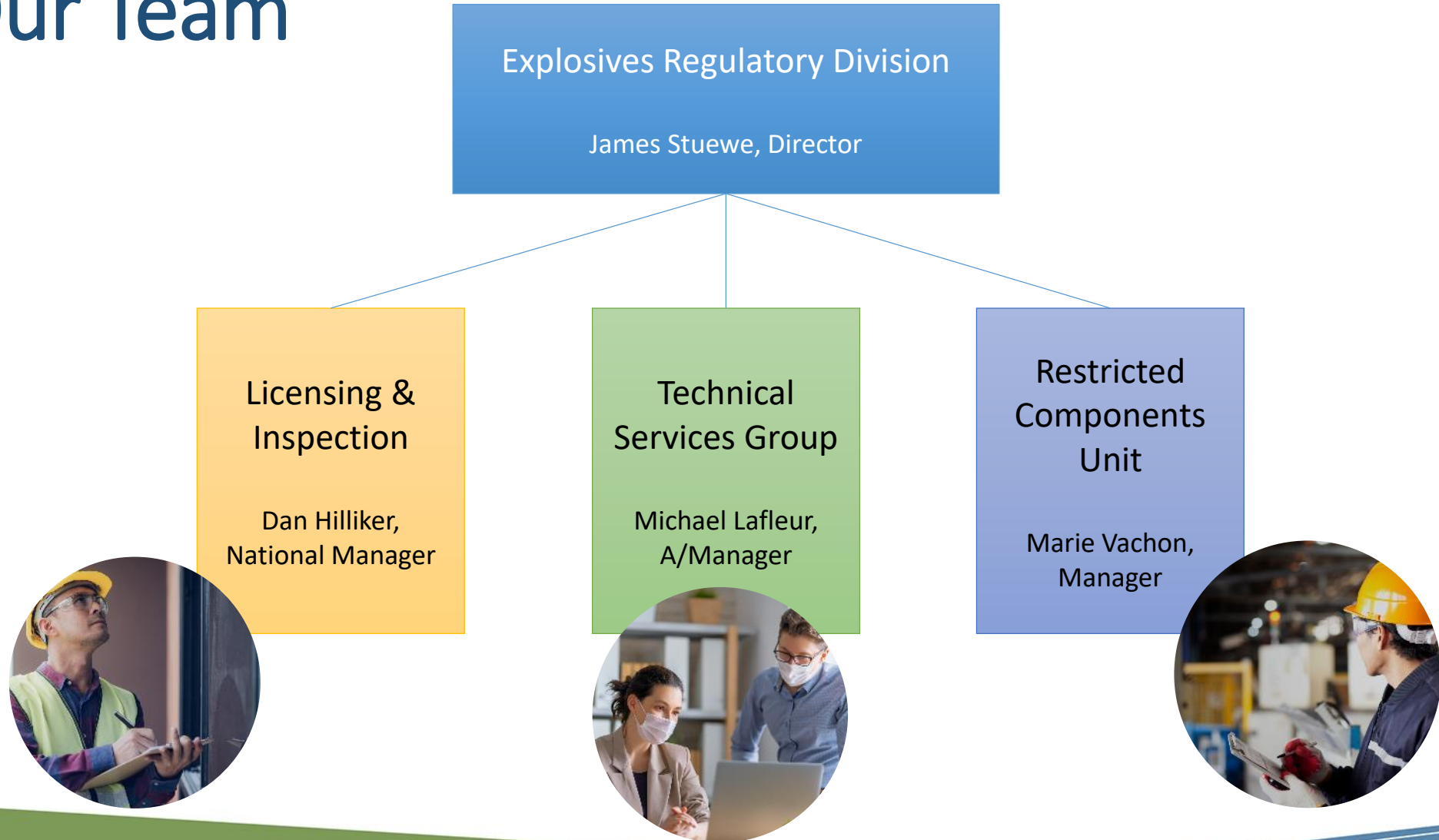
1. ERD Moving Forward
2. Regulatory Review
3. Updates



# Our Team



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# ERD – Focused on Transformation and Renewal



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# Regulatory Review

Regulatory Review launched in February 2021  
to modernize the Explosives Regulatory Regime

## Primary Lenses:

- **GoC Modernization Agenda**

Recognition of the need to keep pace with change, for more efficient service delivery, and the flexibility to address diverse risks and innovation

- **COVID-19**

Focus on removing unnecessary barriers to economic recovery



# Review Plan and Timelines

## Four Year Project plan has 3 phases:

### 1. Building the Plan – February to August 2021

- Identify challenges and irritants through research, outreach and analysis

### 2. Regulatory Development – September 2021 to Fall 2024

- Determine recommendations – policy analysis based on best practices, international comparison, science
- Move forward with amendments

### 3. Program Development and Delivery – Per Regulatory Package

- Material to support implementation of new or revised provisions
- Training / Info sessions



# Phase 1 Complete

- ✓ Reviewed **regulatory framework** including **outstanding amendments**
- ✓ Completed **initial planning** for Review including engagement plan
- ✓ Formed small **Reg Review team**
- ✓ Conducted **outreach** with internal and external stakeholders
  - Introduce the Review
  - Identified total of **280 regulatory irritants**





# What We Heard

Among the 280 irritants, five key themes emerged:



- **Safety and security needs to better align with risk**
  - Exploding targets, black powder, ammunition, blank cartridges
- **Licensing and fee scheme is overly complex and outdated**
  - Manufacturing licences, including the purpose of Division 1, Division 2 and Division 3 licences
  - Calculating fees for multiple licence holders is overly complicated
- **Administrative burden needs to be reduced**
  - Requirements for annual reports
- **Inaccuracies and ‘clean-up’ to be addressed**
  - Out of date provisions, French/English mistranslations
- **New requirements and innovation**
  - Provide for innovation in rocket motors through new definition of “advanced high power rocket motor”
  - Introduce a new classification of low hazard firework



# What We Heard from CEAE

## General Policy Change Suggestions

- AN classification
- Expand licensing renewal period
- Remove import/export permits
- Annual Reports
- MPU licensing

## Targeted Suggestions

- Part 5 Manufacturing – licences, MPUs, magazine signage
- Part 9 Transportation
- Part 11 Industrial Explosives
- Divide the Regulations into focused stand-alone documents



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# Phase 2 Plan

- Two Regulatory Amendment Packages
- Staggered approach
- Roll-out from lower to higher complexity issues for 'quicker wins'
- Address safety and security risks in each package, depending on level and complexity
- Update guidance for each amendment package (Phase 3)



# Amendments Package #1

## Economic Recovery and Enhancing Safety

### Focus on recovery by removing unnecessary burden...

- Streamline transportation requirements
- Review transportation of perforating guns
- Minimum age for hazardous work
- Explore recognition of international tests
- Annual reporting



### ...and address safety and security risks

- Safe quantities of explosives e.g. black powder, consumer fireworks,
- Regulation of small arms and blank cartridges
- Update fireworks/pyrotechnics regime
- Explore restrictions for exploding targets



# Amendments Package #2

## Program Modernization

### Modernize core underpinnings of the regime

- Streamline and update licensing regime
- Review cost recovery regime and update fees



### Explore New Elements and Innovation

- Definition of advanced high power rocket motors
- Explore underground manufacturing
- Review incident reporting and risk assessments





# Timelines

	2021				2022												2023												2024									
Activity	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Package #1 Economic Recovery and Enhancing Safety																																						
Policy																																						
Consultation																																						
CBA																																						
Triage/RIAS																																						
DIs/Drafting																																						
Approvals CGI																																						
Rev/Draft CGII																																						
Approvals CGII																																						
Int/Ext Guidance																																						
Package #2 Modern Program																																						
Policy																																						
Consultation																																						
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Triage/RIAS																																						
DIs/Drafting																																						
Approvals to CG1																																						
Rev/Draft CGII																																						
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Int/Ext Guidance																																						



# Next Steps

- Policy Development
  - Develop policy proposals to support recommendations
- Consultation Plan
  - Develop plan for meaningful consultation with external parties
  - Launch March 2022 for Package #1



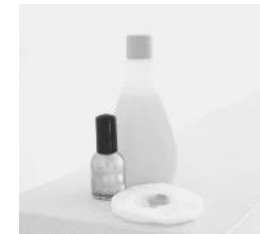
# Upcoming Changes To Part 20 (Restricted Components)

Addition of CAN, hexamine, aluminum powder, acetone

Add cold packs to Tier 3

Add CAS Registry Numbers and concentration limits

Make administrative updates



On track to publish in Canada Gazette II in early 2022.



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# BNQ standards review

## Standard CAN/BNQ 2910-501 – Explosives – Quantity Distances

- BNQ indicated there would be a review
- ERD has joined the review committee
- No timeline established yet



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# Quantified Risk Assessments for Factory Sites

- QD is the approved methodology for determining acceptable safety distances at licensed factory sites.
  - Any proposed alternative will need to be dealt-with on a case-by-case basis.



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# Update to the Magazine Door Locking Mechanism

- The Explosive Regulations, 2013, were updated in 2016 to include reference to Standard CAN/BNQ 2910-500/2015 – Magazines for Industrial Explosives.
- To comply with the Regulations, all explosives magazines storing high hazard explosives must have the locking mechanism upgraded to comply with Section 6.5 of the new Standard.
- All magazines currently not meeting the Standard must be upgraded updated by July 31, 2026.



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# CERL Update

## NEW TESTING CAPABILITIES

### CE MARK TESTING:

- **EN 13763** (detonators)
- **EN 13631** (high explosives)
- **EN 13630** (det. Cord. & safety fuses).

### MBP as part of UN Series 8 Testing

### Ballistic/Frag. Resistance of mags materials and explosives

### Small-scale manufacture of explosives for Authorization or characterization

## INTERLABORATORY TESTING

### Decomposition Enthalpies MTC rev. 7, 2019, Appendix 6, A6.3

#### Objective:

Improve the method for measuring decomposition enthalpies related to screening procedures

#### Participants:

Germany:	Consilab	BAM
Netherlands:	Nouryon	TNO
France:	Arema	INERIS
UK:	Synegenta	

## PRECURSOR CHEMICALS/HMES

### CERL is part of int'l precursor & homemade explosive evaluation Project

- 4 Fertilizers evaluated for potential use in HMEs
- HME subjected to:
  - Hazard evaluation
  - Detonation tests (1, 20, 200 kg)



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# Thank You



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