Overview

- TSB – Who we are and what we do
- Legislative and regulatory authorities
- Reportable rail occurrences
- Notification process
- Investigation process
- Occurrence classification
Who We Are

• An independent agency of the federal government that consists of up to five Board members, including a chairperson, and approximately 220 employees.

• The TSB reports to Parliament through the Leader of the Government in the House of Commons and is independent from other governmental agencies and departments.

• It is not the function of the TSB to assign fault or determine civil or criminal liability.
Our Mandate

To advance transportation safety in the air, marine, rail, and pipeline modes of transportation that are under federal jurisdiction by:

• conducting independent investigations
• identifying safety deficiencies
• making findings as to causes and contributing factors
• making recommendations
• reporting publicly
Legislative and Regulatory Authorities

• Canadian Transportation Accident Investigation and Safety Board Act
  • Defines our mandate, jurisdiction, authorities and key business rules

• Transportation Safety Board Regulations
  • Define what is a reportable occurrence and what information must be provided
  • Provides further clarification on key business rules (e.g. witness interviews, records retention, etc...)
Rail Occurrences

- Approximately 3200 reportable occurrences annually in all modes
- Rail - about 1500 reportable occurrences
- Rail deployments - about 45 per year
- The TSB undertakes, on average, 65 investigations per year; 10 to 15 in rail.
Reportable Rail Occurrences

- a person is killed or sustains a serious injury
- the rolling stock or its contents
  - (i) are involved in a collision or derailment,
  - (ii) sustain damage that affects the safe operation of the rolling stock,
  - (iii) cause or sustain a fire or explosion, or
  - (iv) cause damage to the railway that poses a threat to safety;
- a risk of collision occurs between rolling stock;
- an unprotected main track switch or subdivision track switch is left in an abnormal position;
- a railway signal displays a less restrictive indication than that required for the intended movement;
- rolling stock occupies a track, or track work takes place, in contravention of the Rules or regulations;
- rolling stock passes a signal indicating stop in contravention of the Rules or regulations;
- there is an unplanned and uncontrolled movement of rolling stock;
- a crew member whose duties are directly related to the safe operation of the rolling stock is unable to perform their duties as a result of a physical incapacitation; or
- there is an accidental release on board or from a rolling stock consisting of a quantity of dangerous goods.
Notification Process

- TSB investigators on call 24/7
- Stand-by roster in three regions
- Companies call-in occurrences
- Basic data collected
- Triage
- TSB notifies TC, if required
- Decision to deploy or not
- Decision to investigate or not
Investigation Process

- Field phase
- Analysis phase
- Report phase
When does the TSB Investigate

• Evaluate the likelihood for safety payoff (to learn something new)
• Risk assessment
  • probability of future occurrences resulting in adverse consequences and the potential nature of those consequences
• Consider public expectations
• International obligations and commitments
• Canadian interests
• TSB experience (e.g. Watchlist issues)
Classification System for TSB Investigations

- Accident or Incident
- Class 1 - Public inquiry
- Class 2 - Individual occurrence investigation; large in scope; recommendations likely
- Class 3 – Individual occurrence investigation; smaller in scope; recommendations less likely
- Class 4 - Safety issue investigation
- Class 5 - Data collection
Additional Information
Number of Rail Accidents 2005 to 2014
Number of fatalities by type of occurrence, 2005–2014
Percentage of Rail Accidents by Type, 2014

- Non-main-track derailments: 53%
- Crossing accidents: 15%
- Non-main-track collisions: 9%
- Main-track derailments: 8%
- Main-track collisions: 0.7%
- Other: 15%
Watchlist 2014

Rail Watchlist Issues

• Crossing safety
• Transportation of flammable liquids
• On-board video and voice recorders
• Following railway signals

Multi-Modal Issue

• Safety management and oversight
Contact Information

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