



Locomotive Voice and Video Recording (LVVR) Data Management Procedures

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1.0 Definitions

Authorized User: a CP employee who has received permission from a System Administrator to review a specific recording.

Conductor: an employee who is in charge of the operation of a movement of railway equipment.

Controlling locomotive: the railway equipment from which an operating employee controls the movement of the locomotive and any other railway equipment connected to the locomotive.

Locomotive engineer: an employee who is in control of the locomotive.

LVVR system: a locomotive voice and video recorder system.

Operating employee: an employee who performs the duties of a conductor or locomotive engineer.

System Administrator: a member of CP's Operations Standards and Rules team authorized to collect, download, view, use, and communicate data.

System User: an employee authorized to view or use data.

TSB Reportable Occurrence: any occurrence that CP is required to report to the Transportation Safety Board (TSB).

2.0 Random Selection Policy

2.1 See current version of *LVVR Random Selection Policy*, as found on CP Station.

3.0 Data Access

3.1 Members of CP's Operations Standards & Rules team are System Administrators of the LVVR System, and the only ones authorized to provide access to data to Authorized Users subject to the restrictions listed below (see **Item 5.0 Use of Data**).

4.0 Data Collection

4.1 **Reportable Occurrence**
Following any incident identified as a TSB Reportable Occurrence, a System Administrator must download data from the locomotive crash-protected memory module. In the event a System Administrator is unable to collect the required data, arrangements must immediately be made to secure the encrypted SSD and ship it to Calgary for extraction. Data cannot be downloaded for the purpose of identifying the controlling locomotive involved in the occurrence.

4.2 **Random Selection**
As prescribed by CP's LVVR Random Selection Policy, the LVVR System will automatically download data from the locomotive crash-protected memory module.

4.3 **Security**
All data downloaded are retained in secure virtual storage. For all data not automatically downloaded, the System Administrator must ensure that data are:

- prevented from automatic erasure from the crash-protected memory module (after 48 hours); and
- stored in a virtual storage provider.

4.4 **System Administrators are the only users authorized to communicate data to Authorized Users.**



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5.0 Use of Data

- 5.1 CP may only use data collected once the TSB has indicated they will not be investigating a TSB Reportable Occurrence. As outlined below, CP may only use data to:
- determine the causes and contributing factors of a TSB Reportable Occurrence;
 - address a specific threat to railway safety identified in the above review of a TSB Reportable Occurrence; or
 - determine safety concerns.

5.2 Authorized Users can only view recordings when authorized by a System Administrator.

5.3 TSB Reportable Occurrence

When determining the causes and contributing factors of a TSB Reportable Occurrence, data recorded during the shift of any operating employee present at time of incident may be used.

If required to use data recorded prior to this shift, prior to accessing or using the data, a System Administrator must provide notification of such intended use to:

- all operating employees present on the recording; and
- the bargaining agents representing those employees.

5.4 SMS Analyses

Data obtained through Random Selection may be analyzed by System Administrators to identify safety concerns, including any trends, emerging trends, or any repetitive situations. Safety concerns may be addressed through new or revised operating rules, general operating instructions, safety rules, and/or other special instructions.

5.5 Threats to Railway Safety

- a) The following are prescribed threats to the safety of railway operations:
- an operating employee who uses a cellular telephone while on duty when normal railway radio communication systems are available, except as provided for in company policies;
 - an operating employee who assumes a sleeping position while on duty, except as provided for in company policies;
 - an operating employee who uses a personal entertainment device while on duty, except as provided for in company policies;
 - the presence of an unauthorized person in the controlling locomotive;
 - an operating employee who is consuming or using intoxicants or impairing drugs;
 - an operating employee who reads materials not required in the performance of their duties while on duty, except as provided for in company policies; and
 - operating employees who are within hearing range of each other but who are not verbally communicating, in a clear and audible manner, information they are required to verbally communicate in accordance with rules approved by the Minister.
- b) When a threat to railway safety is identified during the review of a recording, a System Administrator must:
- as soon as possible, notify all identifiable persons present on the recording that CP has identified a threat;



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- within 30 days of the above, notify affected employee(s) that the data will be used to address the threat;
- provide a brief summary of the threat and access to the recording to the GM responsible for the employee (GM may appoint a designate, and/or request access be provided to other authorized users); and
- upon receipt of written request to Operating_PracticesCanada@cpr.ca from any affected employee:
 - notify all other identifiable persons present on the recording that the data will be made available to the affected employee; and
 - provide the affected employee with access to the data.

6.0 Communications

6.1 Reportable Occurrence

a) Other Operating Employees

When CP intends to review a TSB Reportable Occurrence, and data from the shift of the previous operating crew is required, prior to using such data a System Administrator must notify other operating employees, and the bargaining agents representing those employees, of the intended use.

6.2 Safety Threat

a) Affected Employee

When an affected employee is identified as contributing towards a safety threat during CP's review of a TSB Reportable Occurrence, a System Administrator must, within 30 days of providing notification as an identifiable person, notify all affected employees that the data will be used to address the threat.

b) Other Identifiable Persons

When a safety threat is identified during CP's review of a TSB Reportable Occurrence and other identifiable persons are present on the recording, a System Administrator must notify such persons:

- as soon as possible after identifying a safety threat; and
- prior to making the recording available to the affected employee when requested.

6.3 Employee Communications

The above notifications to employees will be an email sent to the email address on file for that employee.

6.4 Random Selection Monthly Usage Report

a) On the first non-holiday Tuesday of each month (or the first non-holiday day after a holiday), CP must make available to all operating employees a report of random selection data generated for the previous month, containing:

- the date and time the data were downloaded and the original date and timestamps of the data; and
- the controlling locomotive identification number associated with the data.

b) This report will be available on CP Station on the Operating Rules and Practices page <https://cprca.sharepoint.com/teams/CORP-I-OperatingRulesPractices> under Canadian Operating Rules & Practices.



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6.5 Third Parties

- a) Data may only be communicated to persons or organizations outside of CP as described below, and must be in a format that prevents unauthorized access.

Agency	Data Type	CP Requirement
TSB	Data relating to a TSB Reportable Occurrence being investigated by TSB	must be communicated
		must also provide the software and equipment required to use the data, either in advance of or at the time that it communicates the data
Minister of Transport	Data relating to a TSB Reportable Occurrence that the TSB is not investigating	must transfer the data to the Minister and, on request, provide the software and equipment required to use the data
	Data randomly selected by CP	
	Data randomly selected by Minister	
	List of controlling locomotives scheduled to be in operation in Canada on any day, or in any location, as chosen by Minister	must be communicated
Railway Safety Inspector	Data relating to a TSB Reportable Occurrence that the TSB is not investigating	must be communicated

- b) All requested randomly selected data must be downloaded before they are permanently erased from the crash-protected memory module or any other storage location where such data are automatically stored.

7.0 Record Keeping

7.1 CP's LVVR System automatically generates an unalterable record:

- containing the date and time stamp when data are created, including a unique locomotive identifier;
- containing the date, time, and name of any person accessing or using data, and purpose of such;
- containing the date and time stamp when access to data is provided, and name of person providing;
- containing the date and time stamp when data are erased, the former location of the data, and the name of person erasing;
- of each test recording prescribed by Regulation; and
- of all employees authorized as System Administrators.

7.2 These records are kept for a minimum of six years after they are generated.