

## Introduction

In Canada, the National Safety Code Standard for Commercial Vehicle Driver Hours of Service (NSC Standard 9) requires drivers to fill out paper log books. The standard also allows the use of electronic media provided it captures the information required by the federal and provincial Hours of Service (HOS) regulations.

In September 2010, the Council of Deputy Ministers directed CCMTA to develop a technical, performance-based standard for Electronic Logging Device (ELD) use that would leverage the work completed by the U.S. and, if approved, allow Canada to move forward with its own ELD requirement while ensuring compatibility with the U.S. ELD rule. In June 2011, an ELD working group created under CCMTA engaged the PIT Group from FPInnovations to draft a Canadian ELD standard and incorporating, where appropriate, key elements of the U.S. rule while allowing Canada the flexibility to consider its own unique requirements.

In July 2013, the CCMTA completed a draft version of the Canadian standard for Electronic On-Board Recorder (EOBR) use (EOBR is the term formerly used for an ELD). That version of the Canadian EOBR standard was the result of two years of consultations with government and industry stakeholders and ELD manufacturers. Comments and feedback received through the consultation process contributed to developing a standard that was well suited to motor carrier operations in Canada. Further to the subsequent issuance of the U.S. ELD final rule on December 10, 2015, CCMTA re-engaged on the issue and an ELD working group, working with the PIT Group, is updating Canadian ELD standard to ensure consistency with the final U.S. ELD rule.

The following report introduces and outlines the updated draft of the Canadian ELD standard. As was done for the 2013 version of the standard, it includes a side-by-side comparison to provisions in the U.S. rule with additional information and explanation where necessary.

## Approach and methodology

In general, the approach was to adapt the U.S. rule to Canada's own unique operational and regulatory requirements. This draft ELD standard is structured to enable motor carriers and logbook drivers to meet their regulatory obligations regarding Canadian HoS regulations. In addition, this standard should allow enforcement officers and authorities to review and monitor regulatory compliance of motor carriers and drivers, whether on the road, at inspection stations or during facility audits.

In summary, the main objective for the Canadian ELD standard is to:

- Improve compliance by motor carriers and drivers required to maintain a logbook with regulatory obligations under HoS regulations;
- Enable enforcement personnel to verify compliance with HoS regulations more efficiently whether on the road, at inspection stations, or during facility audits.

As already indicated during the development process of the previous standard, the key elements for the Canadian ELD Standard are as follows:

- This is a technical standard tailored to requirements under current Canadian HOS regulations; however it doesn't provide requirements over and above HoS provisions or necessarily include or require all features that can be offered by ELD manufacturers.
- This standard does not have to mirror the U.S. rule, but it cannot conflict with U.S. functional requirements for interoperability purposes. Our approach was to ensure consistency and interoperability by adapting the U.S. ELD final rule to Canada's own unique operational and regulatory requirements.
- It is expected that the vast majority of ELD features and functionality will be driven by the U.S. ELD market. Further, manufacturers will expect a positive return on investment to serve the Canadian market. As such, the Canadian ELD standard meets the minimum HoS regulatory and operational requirements for the majority of motor carriers that would use ELDs but is not necessarily tailored to all HOS regulatory provisions (i.e. exclusive of operations under permits [special exemption/ oil well service]).
- This standard must be applicable in all Canadian jurisdictions (i.e. north and south of latitude 60).
- Under the proposed standard, there is no requirement for cellular network communications. However, the ELD must be integrally synchronized with the engine of the Commercial Motor Vehicle (CMV) and include a location sensor (GPS).

While building on the work carried out during the development of the previous standard, the approach was to evaluate to what extent the final U.S. ELD rule could be applied and adapted to the needs of the Canadian market, while ensuring interoperability for both domestic and international operations. More specifically, we evaluated the applicability of each requirement of the U.S. ELD rule, specifically the technical specifications prescribed under Appendix A, while taking into account Canadian regulatory obligations, operational, and technological considerations.

## Revised Canadian ELD Standard

The updated draft of the Canadian ELD Standard is provided in Appendix A as a side-by-side comparison with the functional requirements from the U.S. ELD final rule. After evaluating to what extent each requirement from the U.S. ELD rule can be applied and adapted to the Canadian technical standard, this section provides additional information as to modifications that were made to consider Canada's own unique operational and regulatory requirements.

**Most significant changes to requirements from the previous Canadian EOBR Standard released in 2013:**

- **ELD User Accounts (section 4.1):** sections 4.1.1 to 4.1.5 include security requirements for account management within an ELD and support system.
- **Vehicle Motion Status (section 4.3.1.2):** requirement under previous EOBR Standard has been modified to ensure consistency with U.S. ELD regulation. Previous requirement under paragraph 3(a) was reading: *“The EOBR must automatically record driving time. It must also default to the driving status within a distance travelled not to exceed 100 meters.”*
- **Situations Impacting Driving Time Recording (section 4.3.2.2.2):** for interoperability with the U.S. ELD regulation, the Canadian ELD Standard will allow for yard moves. However, GPS position and mileage must be recorded and the start and end of these events.
- **Automatic Setting of Duty Status to On-Duty Not Driving (section 4.4.1.2):** requirement under previous EOBR Standard has been modified to ensure consistency with U.S. ELD regulation. Previous requirement under paragraph 3(b) was reading: *“When the CMV is stationary for 5 minutes or more, the EOBR must default to ODND and prompt the driver to confirm the proper duty status. The date and time must be recorded at status change (i.e. when the EOBR defaults to ODND), not at the exact time when the CMV stopped moving.”*
- **Setting of Event Parameters in Records, Edits, and Entries (section 4.4.4):** this section includes security measures to protect data integrity and keep track of all ELD records, edits and entries history.
- **Events and Data to Record (4.5.1):** this section specifies all data elements that must be recorded.
- **ELD’s Self-Monitoring of Required Functions (section 4.6.1):** this section includes standard features for monitoring ELD malfunctions and data inconsistencies.
- **Positioning Compliance Monitoring (section 4.6.1.4):** requirement under previous EOBR Standard has been modified to ensure consistency with U.S. ELD regulation. Previous requirement under paragraph 5(f) was reading: *“If the GPS information (latitude and longitude) to determine the location of the CMV is not available at moment of recording a duty status change, the EOBR must prompt the driver to enter the location description (not latitude and longitude). This annotation must also be reported in the sequence of duty status changes.”*
- **ELD Status Indicator (sections 4.6.2 and 4.6.3):** these sections include requirements to indicate any ELD malfunction.
- **Information to be Shown on the Printout and Display at Roadside (section 4.8.1.3):** this section specifies all information and data elements that must be reported.
- **Data Transfer Capability Requirements (section 4.9):** this section provides requirements for data file transfer to enforcement officials.

## Summary of requirements that deviate from the U.S. ELD Final Rule

- **Vehicle Miles (section 4.3.1.3):** additional requirements provided to monitor and report distance driven for personal use.
- **Engine hours (section 4.3.1.4):** requirement for engine hours go beyond what is currently required under HoS regulations. References to engine hours were deleted from all functional requirements.
- **CMV Position (section 4.3.1.6):** requirement for CMV location during personal use has been removed.
- **CVM VIN (section 4.3.1.7):** the VIN is not required under current HoS regulations. The driver must report CVM unit number or license plate for each vehicle.
- **Situations Impacting Driving Time Recording (section 4.3.2.2.2):** additional requirement provided to include the 75 km limitation under the personal use provision.
- **Off-Duty Time Deferral (section 4.3.2.2.3):** additional requirements provided to record and report Off-duty time deferral. See also sections 4.5.1.8 and 4.8.1.3.
- **Situations Impacting duty-/driving-hour limitations (section 4.3.2.2.4):** additional requirements provided to record and report Cycle and Operating Jurisdiction changes. See also sections 4.5.1.9, 4.5.1.10 and 4.8.1.3.
- **Geo-Location Conversions (section 4.4.2):** additional requirement for location database update.
- **Data Integrity Check Functions (section 4.4.5):** no requirement for event data check values.
- **HoS duty-/driving-hour limitations (section 4.4.6):** additional requirements provided to track and set the duty-/driving-hour limitations for the current operating jurisdiction, 24-hour period, work shift and cycle.
- **Intermediate logs (section 4.5.1.2):** requirement for intermediate logs go beyond what is currently required under HoS regulations. References to intermediate logs were deleted from all functional requirements.
- **Driver notifications for HoS limitations (section 4.6.4):** additional requirement to notify the driver for HoS limitations.
- **Privacy Preserving Provision for Use During Personal Uses of a CMV (section 4.7.3):** those requirements go beyond what is currently required under HoS regulations. If the CMV is being used for personal use, the ELD must only record the total distance at the beginning and end of the personal use.
- **Information To Be Shown on the Printout and Display at Roadside (section 4.8.1.3):** requirements for data elements adapted to comply with current HoS regulations.
- **ELD Output File Standard (section 4.8.2.1):** there is no requirement for a standard data file output in Canada. The data file transfer refers only to an electronic file (pdf or any other format) being compliant with format specified under section 4.8.1.3.
- **Communications Standards for the Transmittal of Data Files from ELDs (section 4.10):** not required.
- **ELD registration and certification (section 5):** currently no functional requirements for the registration and certification process, this issue remains to be addressed.

## Proposed application of the Canadian ELD Standard

This proposal for the Canadian ELD Standard would apply to:

- All motor carriers and CMV drivers who are currently required to prepare and retain a Record of Duty Status (RODS) under current HoS regulations.
- All above-mentioned drivers operating CMVs manufactured in model year 2000 or after.

## Outstanding issues

As part of the consultation process, industry stakeholders and ELD suppliers are invited to provide input on other outstanding issues such as the exemptions permitted under the U.S. ELD rule:

- Drivers in driveaway-towaway operations.
- Drivers using paper RODS for not more than 8 days during any 30 day period.
- Drivers operating rental trucks.
- Grandfathering for existing units.
- Canada-U.S. interoperability.
- French language (ELD driver interface).
- Data transfer protocol at roadside.
- Registration and certification process: made-in-Canada approach or mirror the U.S. formula (self-certification vs third-party certification).