

Submission on Proposed Canadian Locomotive Emissions Regulations

by

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Further to participation in the Stakeholders meeting in Ottawa and review of documentation distributed, listed below are my comments and queries related to specific elements of the proposed regulations.

1. **Harmonization of Canadian standards with U.S. EPA regulations** – What does this actually mean? Does it mean the Canadian standards will simply reference the EPA regulations (currently only for NO_x, CO, HC and PM), or will the Canadian standards use the EPA numerical emissions limits but be distinct and rewritten (presumably in both official languages)?
2. **Upgrading to Tier 0 / Tier 1 upon Remanufacture** – This is an EPA requirement to upgrade unregulated locomotives originally manufactured between 1973 and 1992 (mostly SD38 and SD40s) to Tier 0 and between 1993 and 2004 to Tier 1. In fact, if remanufactured after 2010, the standards are EPA Tier 0+ and Tier 1+. However, the experience observed in the U.S.A. is that the railways are short-circuiting this by replacing fewer than 50 percent of power assemblies at a time with new parts which ‘technically’ does not mean remanufacture. How will the proposed Canadian regulations handle this loop-hole?
3. **Labelling** – The outline of the proposed Canadian regulations states that Tier-level labels can be in either official language. As linguistic duality is an intrinsic part of the Canadian identity, I strongly emphasize that the labels be in both official languages to handle the practical case of when locomotives travel between English and French language jurisdictions – thus obviating any language controversy. An alternative to having the labels in both official languages could be to display only an icon on the label – say a maple leaf with the relevant Tier-level number stamped on it. In this case, the label would be linguistic neutral. The Canadian regulation details equivalent to those on EPA labels could be included, in both official languages, in the accompanying documentation from the OEM or remanufacturers.
4. **Enforcement** – How do Canadian regulators plan to enforce the regulations? It is feared that without some on-site inspection and threat of penalty some railways will continue to avoid with impunity bringing their locomotives up to EPA Tier-level standards.
5. **Evolving EPA Test Procedures** – The Part 1065 emissions measurement test procedures in the EPA document 40 CFR are regularly evolving / changing. By what mechanism will a separate Canada regulation keep up with the changes?

6. **In-service Testing** – Will there be an equivalent in Canada of the EPA requirement for 0.5% of in-service Tier-level locomotive fleet to be emissions measured and verified annually? This EPA requirement is administered by the Association of American Railroads (AAR) through its Transportation Technology Centre (Pueblo, Colorado) by contracting on a competitive basis to emissions test facilities in the U.S.A. and Canada.
7. **Incidental Forays** – Will there be a Canadian equivalent of the current clause in the EPA regulations that allow non-regulated Canadian and Mexican locomotives to cross into the U.S.A. on an ‘incidental foray’ basis?
8. **Track-only Railways** – As some of the federally-regulated railways are track-only extensions of provincially-regulated railways for purpose of crossing provincial borders or into the U.S.A., how will the emissions from ‘other railway’ locomotives operating on these tracks be regulated, if at all?
9. **Commuter Railways Locomotives operating on Tracks of Federally-regulated railways** – As commuter railways are under provincial regulation, will the new federal emissions regulations permit uncontrolled commuter locomotives to be ignored when operating over tracks belonging to federally-regulated railways?
10. **Harmonization of Provincial and Federal Locomotive Emissions Regulations** – Will there be any attempt to harmonize across Canadian jurisdictions? This might obviate a loop-hole by which U.S. OEMs sell new locomotives with uncontrolled or lower Tier-level engines at a price discount to Canadian provincially-regulated railways without, at present, neither the OEM nor Canadian railway breaking laws.
11. **Greenhouse Gas (GHG) Regulations** – What limit values or metrics are being considered? From a railway perspective, the preferred metric appears to be GHG intensity values (gm CO_{2e} / 1000 RTK)? What happens if they are exceeded? Currently, the EPA calls for reporting of locomotive-specific emissions levels of the three GHGs in diesel fuel consumed (CO₂, CH₄ and N₂O) but states no limits.
12. **Anti-idling Coverage by Regulations** – Will the proposed regulations in any way impose, or recognize advantages of anti-idling devices and practices, particularly as they relate to reducing idling in yard switching operations adjacent populated areas?
13. **Budgeting for Regulation Compliance Administration, Verification and Reporting** – It appears that the proposed locomotive emissions regulatory regime will incur costs to both the operating railways and federal government agencies. Has this been estimated and the funding source(s) identified?
14. **Public Reporting of Railway Emissions Reduction Record** – Will there be a reporting for the public domain similar to the current *Locomotive Emissions Monitoring* report issued annually by the Railway Association of Canada?