

#### **GUIDANCE DOCUMENT**

#### OFF-ROAD COMPRESSION-IGNITION **ENGINE EMISSION REGULATIONS**

#### under the Canadian Environmental Protection Act, 1999

#### **Disclaimer**

This document provides guidance only. It does not in any way supersede or modify the Canadian Environmental Protection Act, 1999 or the Off-Road Compression-Ignition Engine Emission Regulations or its amendments. In the event of an inconsistency between this document and the Act and/or the Regulations, the Act and the Regulations prevail.

> **Transportation Division Environment Canada**

> > August 2012



PDF version Cat. No.: En14-70/2012E-PDF ISSN 978-1-100-21096-4

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#### TABLE OF CONTENTS

Α.		Introduction	6
	B.1 B.2 B.3 B.4 B.5	Regulatory framework	3 3 2
C.	C.1 C.2 C.3 C.4 C.5 C.6 C.7 C.8 C.9 C.10 C.11 C.12 C.13 C.14 C.15	Engines subject to the Regulations Introduction to engines subject to the Regulations What off-road compression-ignition engines are covered by the Regulations? What engines are NOT covered by the Regulations? Are re-manufactured engines covered by the Regulations? What is an engine model year and why is this important? What is a machine? Are machines covered by the Regulations? What is the difference between "equipment" and "machine"? What is a machine model? Are there requirements for stationary engines in the Regulations? How do I determine if my engine is stationary? What is meant by engines that "are used solely to provide electricity for small communities in remote areas", as described in paragraph 5(2)(i)? Are portable power generators excluded under paragraph 5(2)(i)? Are there provisions in the Regulations that allow the importation of engines whose assembly must be completed in Canada in order that they meet the standards? Do all diesel engines subject to the Regulations have to meet the Tier 4 emission standards and other requirements? What is a transportation refrigeration unit? What are transition engines? Engine for which the Governor in Council has granted an exemption	11 11 11 13 13 13 14 14 15 16 16 16
	D.1 D.2 D.3 D.4	Persons subject to the Regulations	19 19 19 20
Ε.	E.1	National emissions markIntroduction to national emissions mark	

	E.2	Are there any conditions in regard to affixing a national emissions mark to an engine?	23
	E.3	What are the requirements for the size, location and manner	20
		of affixing the national emissions mark on an engine?	24
	E.4	Who can apply the national emissions mark?	
	E.5	How does a company get the Minister's authorization to use	
		the national emissions mark?	24
	E.6	What information could satisfy the requirement of paragraph 6(2)( <i>d</i> ) of the Regulations to show that the company is capable of verifying	0.5
	E.7	compliance with the standards?  Do imported engines require the national emissions mark?	
	E.8	Is a national emission mark required on an incomplete engine being imported into Canada on which an emissions control system will be	20
		installed?	26
F.		Emission standards and requirements	27
	F.1	Introduction to emission standards	
	F.2	What are the exhaust emission standards?	27
	F.3	Are there evaporative emission standards?	30
	F.4	Are there crankcase and smoke emission standards?	31
	F.5	Are there alternate emissions standards for transportation	
		refrigeration units?	
	F.6	What are the transition engine provisions and standards?	32
		F.6.1 What are the transition engine standards and time frames?	
		F.6.2 Do transition engines need to be labelled?	33
	ŀ	F.6.3 Is there a limit to the number of transition engines I can import	
		or manufacture?	33
	ŀ	F.6.4 Does Environment Canada have any expectations on the use	22
		of the transition engine provisions?	
		F.6.5 Are there reporting requirements for transition engines?	აა
	Г	paragraph $13(1)(b)$ ?	35
	F 7	What are the emission requirements for engines that I plan	00
		on exporting outside Canada?	35
	F.8	What happens if I import a certain number of engines, and I do not	00
	0	know at the time of import if they will be exported?	35
	F.9	Is an engine covered by an EPA certificate of conformity and sold	
		concurrently in Canada and the United States required to meet the	
		Canadian emission standards?	35
	F.10	Engine in transit through Canada, from a place outside Canada to	
		another place outside Canada	36
	F.11	Engine imported exclusively for use by a visitor to Canada	
G.		Evidence of conformity	
<b>.</b>	G.1	Introduction to evidence of conformity	
	G.2	Definitions	
		Background on the evidence of conformity	
		,	_

	(	G.3.1 Engines covered by an EPA certificate and sold concurrently	
		in Canada and in the United States (Section 16)	.40
	(	G.3.2 Canada-unique engines (paragraph 17(1)(b))	.41
	G.4	Submission of the evidence of conformity: Required documentation	
		and timing	
	(	G.4.1 Engines sold concurrently as described in section 16	.42
	(	G.4.2 Canada-unique engines as described in paragraph 17(1)(b)	.42
		Evidence of conformity for transition engines	
		G.5.1 Concurrent sale of transition engines	
	(	G.5.2 What is the evidence of conformity required for a transition	
		engine that will be installed in a transition machine that is sold	
		concurrently, and when should it be submitted to the Minister?	.48
	(	G.5.3 What is the evidence of conformity required for a transition	
		engine in a transition machine that is not sold concurrently,	
		and when should it be submitted to the Minister?	.49
		Administrative information	
		G.6.1 Who is responsible for submitting the evidence of conformity?	
		G.6.2 Where should evidence of conformity be sent?	
		G.6.3 Environment Canada acknowledgements	
		G.6.4 Whom should I contact if I have questions or concerns?	
		Engine labelling requirements, declarations and suggested text	
		What are the labelling requirements?	. 55
	G.9	What is the unique identification number referred to	
		in subsection 8.1(1) of the Regulations?	. 55
Η.		Importing an engine	.56
	H.1	Introduction to importing an engine	
	H.2	Are there special provisions when importing five or less engines	
		or machines?	.57
	H.3	What is the business number required in subparagraph 19(1)(e)(i)	
		of the Regulations?	.57
	H.4	Is there a template for the importation declaration information	
		specified in section 19 of the Regulations?	.57
	H.5	Is there any suggested wording for the statement in subparagraph	
		19(1)(e)(ii) of the Regulations?	. 58
	H.6	Who is eligible to sign the import declaration as the "duly authorized	
		representative" of the company?	. 58
	H.7	I import more than 50 engines, what are my options for submitting	
		importation declarations to Environment Canada?	
		Are there any reporting requirements for engines that I export?	.60
	H.9	I supply machines to countries that do not have the same emission	
		standards. Can I import higher emitting engines to install in or	
		on those machines if I am going to export them?	.60
	H.10	What is the procedure for importing loose transition engines, for which	
		the type of machine these engines will be installed in is not known?	
	H.11	What are the requirements for the import of an incomplete engine?	.60

	H.12	2 How do I import engines into Canada for testing	
		and evaluation purposes?	61
	H.13	I am importing engines and machines for my own	
		(or my company's) use, what do I need to do?	62
	H.14	Are there any requirements in the Regulations that apply	
		to "swing" engines?	63
	H.15	Are there other importation requirements not outlined	00
		in the Regulations that I should be aware of?	
I.		Other obligations	
	1.1	Obligation to provide maintenance instructions	64
	1.2	Obligation to provide instructions for the installation of an emission	0.4
	1.3	Control system  Notice of defect	
	1.3 1.4	Replacement engine	
	1. <del>-</del> 1.5	Obligation to provide an engine	
	1.0		
J.		Compliance and enforcement	
Α	ppend	dix I – Example of an EPA certificate	70
Α	ppend	dix II – Procedure for the Submission of Evidence of Conformity	
uı	nder p	paragraph 17(1)( <i>b</i> )	71
Α	ppend	dix III – Example of a Statement of Compliance Letter	72
Α	ppend	dix IV – Example of a Statement of Compliance Letter	
		nada-unique transition engines	74
Α	ppend	dix V – Technical Information Requirements	76
	-	dix VI – Engine labelling	
		dix VII – Engine information label for engines, other than transition	
		s, that are not EPA certified	90
	Ū	dix VIII – Quick guide to importation	
	-	-	
А	ppend	dix IX – Off-Road Diesel HS 10 codes and descriptions	96

#### **List of Abbreviations and Definitions**

CANMET – Canada Centre for Mineral and Energy Technology

CARB - California Air Resources Board

CBSA – Canada Border Services Agency

CEPA 1999 – Canadian Environmental Protection Act, 1999

CFR - Code of Federal Regulations

EC - Environment Canada

EPA – Environmental Protection Agency

Loose engine – A loose engine, also referred to as a stand-alone engine, is an engine that is manufactured for the purpose of being installed in or on a machine but is currently not installed in or on a machine.

NEM – National Emissions Mark

the Act – Canadian Environmental Protection Act, 1999, which is also known as CEPA 1999, but will be referred to as the Act in this document

TRU – Transportation Refrigeration Unit

#### A. Introduction

This guidance document provides information about the requirements of the *Off-Road Compression-Ignition Engine Emission Regulations*. A first version of this guidance document was published in March 2006 after the original Regulations covering these engines were published in February 2005. This guidance document has since been modified to reflect the changes to the Regulations as a result of the *Regulations Amending the Off-Road Compression-Ignition Engine Emission Regulations* (DORS/2011-261), published in December 2011. An electronic version of the guidance document is available on the website below.

In general, Canadian manufacturers of off-road compression-ignition engines and importers of engines and machines containing these engines have legal obligations under these Regulations. Compression-ignition engines are typically diesel-fueled engines; however, the Regulations are not limited to this particular fuel. For simplicity, these engines will be referred to as diesel engines in the remainder of this guidance document.

Examples of diesel engines covered by these Regulations include those that are found in construction, forestry and agricultural machines. A factsheet has been developed to assist persons and companies in determining if they are subject to the Regulations or not. The factsheet is also a good first step to get a sense of the different general requirements of the Regulations. It can be accessed from:

www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=88

For further information regarding these Regulations, you may contact the Transportation Division at:

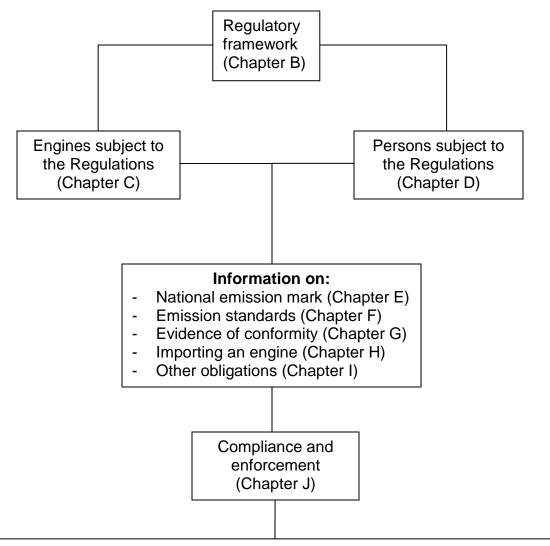
#### VehicleandEngineInfo@ec.gc.ca

Figure 1 illustrates how this document is organized. Each chapter includes a short description of a specific aspect of the Regulations followed by additional details, primarily in question and answer format.

6

<sup>&</sup>lt;sup>1</sup> The Regulations published in February 2005 are registered under this identification: DORS/2005-32.

Figure 1: Document overview



#### Appendices:

- Example of an EPA certificate (Appendix I)
- Procedure for the Submission of Evidence of Conformity under paragraph 17(1)(b) (Appendix II)
- Examples of a Statement of Compliance Letter (Appendix III and IV)
- Technical Information Requirements (Appendix V)
- Engine labelling (Appendix VI)
- Engine information label for engines, other than transition engines, that are not EPA certified (Appendix VII)
- Quick guide to importation (Appendix VIII)
- Off-Road Diesel HS 10 codes and descriptions (Appendix IX)

#### B. Regulatory framework

#### **B.1** Introduction to regulatory framework

The Off-Road Compression-Ignition Engine Emission Regulations (the Regulations) establish, under the authority of the Canadian Environmental Protection Act, 1999, Canadian emission standards and test procedures. These standards and procedures are aligned with those of the United States Environmental Protection Agency (EPA) Code of Federal Regulations for off-road diesel engines.

You can find the Regulations and the Amendments at this website:

www.ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=88

### B.2 What is the Canadian Environmental Protection Act, 1999 (the Act)?

The Canadian Environmental Protection Act, 1999 (the Act), is "an Act respecting pollution prevention and the protection of the environment and human health in order to contribute to sustainable development". The Act is Canada's main federal environmental protection legislation. Part 7, Division 5, allows the Governor in Council to make regulations for controlling vehicle, engine and equipment emissions.

You can find the Act at:

http://laws.justice.gc.ca/en/C-15.31/index.html

or at:

www.ec.gc.ca/CEPARegistry/the\_act

#### **B.3** What is the CEPA Environmental Registry?

The CEPA Environmental Registry is a website where the public can view information on up-to-date environmental regulations and their support documents. This website contains guidance materials and templates related to the Regulations. This website also has information on other instruments, including other transportation-related regulations, voluntary agreements and interim orders. The CEPA Environmental Registry is also the website where public consultations are announced.

You can access the CEPA Environmental Registry at:

www.ec.gc.ca/ceparegistry

#### **B.4** What is the Code of Federal Regulations?

The Code of Federal Regulations (CFR) is a list of United States regulations. The Environment Canada Regulations incorporate by reference sections of the CFR. For these Regulations the following parts are frequently referenced:

- 1. Title 40, Part 89, CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES [Tier 1, 2 and 3 emission standards]
- Title 40, Part 1039, CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES [interim Tier 4 and Tier 4 emission standards]
- 3. Title 40, Part 1068, GENERAL COMPLIANCE PROVISIONS FOR ENGINE PROGRAMS [overarching rule covering general compliance provisions]

Note that other CFR sections, for example CFR 1065 which describes enginetesting and procedures, are also incorporated by reference in the Regulations.

You can find the CFR sections at:

www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR

### B.5 How are the various CFRs incorporated in the Regulations?

The Regulations include references to the Act and to the CFRs. References to the Act are usually related to those sections that provide the authority to regulate a specific activity, or these references may also be to a definition. For example, paragraph 2.1(a) refers to section 149 of the Act. This section of the Act is where engines are defined.

When the Regulations incorporate by reference a specific section of the CFR, this is usually a standard or a test procedure. An example of this may be found in paragraph 10(1)(a) of the Regulations. In this paragraph, the standards for engines of model years 2006 to 2011 are incorporated by referencing the corresponding sections of CFR 89; namely section 112, subpart B for exhaust emission standards; section 112(e), subpart B for crankcase emission standards; and section 113, subpart B for smoke emissions standards.

Subsection 1(2) of the Regulations also includes general rules specific to the CFRs. It should be noted that when Environment Canada incorporates the CFR by reference, it excludes:

- 1. references to the EPA or its Administrator using any kind of discretion;
- 2. alternative standards related to the averaging, banking and trading of emission credits, to small volume manufacturers or to financial hardship; and

3. standards or evidence of conformity from any other authority other than the EPA.

In summary, in order to understand the requirements of the Regulations, you will also need to be aware of those sections that are incorporated by reference.

#### **B.6** Are the Regulations identical to the CFRs?

No. While the objectives of Environment Canada and the EPA are similar, the legal authorities and laws of Canada and the United States differ. There are important differences in how environmental regulations are developed and enforced in Canada and in the United States. Furthermore, the business of offroad diesel engines is unique to each country.

The Regulations were developed to align Canadian emission standards and test procedures with those of the EPA. The Regulations are as similar as possible, while respecting the differences in legislation between the Act in Canada and the *Clean Air Act* in the United States

Note that administrative and other reporting requirements are often different between the two countries.

#### C. Engines subject to the Regulations

#### C.1 Introduction to engines subject to the Regulations

The Regulations specify requirements for off-road diesel engines. These engines are typically diesel-fuelled and are found in construction, farming, forestry and some mining machines. This would include tractors, excavators, log skidders and heavy haulers.

The Regulations apply to:

- engines imported into Canada; and
- engines manufactured in Canada that are "transported within Canada" (meaning transported across provincial or territorial borders).

The standards apply to stand-alone (loose) engines, as well as those that are already installed in or on machines.

These Regulations **do not apply** to diesel engines that are subject to the *On-Road Vehicle and Engine Emission Regulations*; namely engines used in diesel-fueled cars and trucks. These Regulations are available at:

http://ec.gc.ca/lcpe-cepa/eng/regulations/detailReg.cfm?intReg=65

For other categories of diesel engines that are not subject to these Regulations, see C.3.

### C.2 What off-road compression-ignition engines are covered by the Regulations?

Generally speaking, diesel engines that power machines which do not typically drive on a road are covered in the Regulations. For example, a farm tractor, a bulldozer, a portable generator and a tree feller often have an "off-road compression-ignition engine" powering it, and this engine would be required to meet the Regulations. In addition, diesel engines that power auxiliary equipment on a machine, such as a refrigeration unit, are also required to meet the Regulations.

#### C.3 What engines are NOT covered by the Regulations?

Engines that are not covered under the Regulations are listed below. Following each is a reference to that section of either the Act or the Regulations where the

exemption is found. Please note that in many cases, the engines must be labelled. Information on engine labelling is found in Appendix VI.

List of engines not covered:

- 1. Engines designed to propel an aircraft (e.g. an airplane) [section 149 in the Act];
- 2. Engines designed to propel rolling stock (e.g. a locomotive) [section 149 in the Act];
- 3. Marine diesel engines rated at 37 kW and above [section 149 in the Act];
- 4. Engines that are subject to the *On-Road Vehicle and Engine Emission Regulations*, for example, a diesel-fueled passenger car [paragraph 5(2)(b) in the Regulations];
- 5. Engines that are designed to be used exclusively for competition and bear a label to that effect [paragraph 5(2)(a) in the Regulations];
- 6. Engines that are designed to be used exclusively in underground mines, may be used outside underground mines and are certified by either:
  - a. the Canada Centre for Mineral and Energy Technology (CANMET), or
  - b. the Mine Safety and Health Administration (MSHA) of the United States [paragraph 5(2)(*c*) in the Regulations];
- 7. Engines that have a per cylinder displacement of less than 50 cm<sup>3</sup> [paragraph 5(2)(*d*) in the Regulations];
- 8. Engines that are designed exclusively to be used in military machines designed for combat or combat support and bear a label [paragraph 5(2)(e) in the Regulations];
- 9. Engines that are being exported and are accompanied by a written statement indicating that they will not be sold for use or used in Canada [paragraph 5(2)(f) in the Regulations];
- 10. Marine inboard engines [paragraph 5(2)(g) in the Regulations];
- 11. Engines that are stationary engines and bear a label [paragraph 5(2)(h) in the Regulations];
- 12. Engines that are used exclusively to provide electricity for small communities in remote areas and bear a label to that effect [paragraph 5(2)(i) in the Regulations].

12

<sup>&</sup>lt;sup>2</sup> Please note that any engine that is designed to be used in mines and does not have CANMET or MSHA engine certification is **not** excluded from the Regulations by paragraph 5(2)(c).

#### C.4 Are re-manufactured engines covered by the Regulations?

Contact VehicleandEngineInfo@ec.gc.ca for more information.

#### C.5 What is an engine model year and why is this important?

The model year is the year determined by the engine manufacturer to designate the period of production of a particular model of an engine and is defined in section 4 of the Regulations. This is relevant as standards and test procedures apply per model year.

The model year can span a period of up to two calendar years less one day but can include only one January 1. The model year corresponds to the calendar year during which production occurred or the calendar year during which January 1 fell. For example, a family of engines produced between March 1, 2006, and January 31, 2007, would be 2007 model year engines and would need to meet the standards applicable to the 2007 model year.

#### C.6 What is a machine?

"Machine" means anything, including a vehicle, device, appliance or implement, that is powered by an engine. A tractor, an excavator or a portable generator, for example, powered by a diesel engine would be considered a machine for the purpose of these Regulations. In the CFR, the words "nonroad equipment" or "nonroad vehicle" generally have the same meaning as "machine" in the Regulations.

#### C.7 Are machines covered by the Regulations?

While most provisions of the Regulations apply specifically to engines, machines are also covered if the machine contains an engine covered by these Regulations. In other words, the engine in the machine must meet the requirements set out in the Regulations.

### C.8 What is the difference between "equipment" and "machine"?

The Regulations use the term "machine" as meaning a vehicle, device, appliance or implement powered by an engine. For example, a bulldozer or a generator would be considered a machine.

The word "equipment", as defined in section 149 of the Act, is intended to cover engine accessories, such as fuel systems and emission control systems, which include catalytic converters.

#### C.9 What is a machine model?

A machine model is defined by its:

- 1. Manufacturer: meaning the company that has manufactured the machine;
- 2. Brand: meaning the company the machine is sold under; this may be the machine manufacturer or a different brand;
- 3. Engine: meaning its model, family, calibration and set power outputs;
- 4. Main characteristics: meaning the model's main features which differentiate it from other similar ones.

If two machines share the same manufacturer, brand, engine (including calibration) and main characteristics, they would be considered the same model.

Note that the concept of a machine model is relevant only for the use of the transition engine provisions (see C.17 for information on transition engines).

### C.10 Are there requirements for stationary engines in the Regulations?

Labelled stationary engines are not required to meet the emission standards under these Regulations. This is outlined in paragraph 5(2)(h) of the Regulations (see G.7 on label requirements).

#### C.11 How do I determine if my engine is stationary?

If your engine is used in a permanently fixed application (e.g. the machine is permanently bolted to a factory floor and it has a fixed fuel supply), it is likely a stationary engine. Some examples of machines that are used in stationary applications include non-portable generators, compressors, pumps and irrigation systems.

Importers and engine manufacturers will need to determine before the engine is imported or crosses provincial or territorial borders if the engine will be used in a stationary application. If this is the case, the engine will need to be labelled appropriately.

## C.12 What is meant by engines that "are used solely to provide electricity for small communities in remote areas", as described in paragraph 5(2)(i)?

The Regulations do not cover engines used to provide prime power to remote communities. In this case, "small communities in remote areas" refers to communities that are not linked to an electricity grid (an interconnected system that distributes electricity over a wide area, generally through a network of high-tension cables and power stations). This type of established community would rely heavily on utility companies' use of diesel generators to provide prime power. These stationary diesel generators would typically be excluded from meeting emission standards under paragraph 5(2)(h) of these Regulations provided they are labelled as stationary. In some cases, these generators are housed in or on trailers, and would therefore be excluded under paragraph 5(2)(h).

In addition, there are situations where utility companies use "back-up" or "emergency" generators to temporarily replace existing stationary generator sets in remote communities undergoing maintenance work. The engines found in these generators would be excluded, provided that they are correctly labelled. In these cases, generators would not in fact be stationary, but would be excluded under paragraph 5(2)(i), if labelled accordingly.

### C.13 Are portable power generators excluded under paragraph 5(2)(i)?

No. Portable generators must meet the emission standards unless C.12 applies.

# C.14 Are there provisions in the Regulations that allow the importation of engines whose assembly must be completed in Canada in order that they meet the standards?

Yes. Section 17.1 of the Regulations allows engines that do not meet the standards in the Regulations to be imported provided that their assembly is completed in Canada and the engines meet the applicable standards before they leave the possession or control of the *company* that imported the engines.

This is particularly important for Tier 4 engines as these will almost always have emission control systems that will be added and these may not be assembled at the time of import. A *company* may be required to apply a National Emissions Mark. See H.11 for more information on the importation of these engines and other requirements.

## C.15 Do all diesel engines subject to the Regulations have to meet the Tier 4 emission standards and other requirements?

No. The following engines must conform to only certain provisions of the Regulations:

- 1. Engines that are imported into Canada for purposes of exhibition, demonstration, evaluation or testing as discussed in H.12;
- 2. Engines that are being imported for use by a visitor to Canada or by a person passing through Canada to another country as discussed in F.9;
- 3. Engines that are going through Canada, from a place outside Canada to another place outside Canada as discussed in F.8;
- 4. Replacement engines, as defined in subsection 12(1) of the Regulations and as discussed in I.4;
- 5. Transportation refrigeration unit engines as defined in subsection 11.1(1) of the Regulations and as discussed in C.16;
- 6. Transition engines as defined in subsection 13(1) of the Regulations and as discussed in C.17; and
- 7. Engines for which the Governor-in-Council has granted an exemption as discussed in C.18.

All other engines must conform to all applicable provisions of the Regulations.

#### C.16 What is a transportation refrigeration unit?

A transportation refrigeration unit (TRU) is defined in subsection 11.1(1) as: "a refrigeration system that is powered by an engine and that is designed to control the temperature of products that are transported in rolling stock, vehicles or trailers". In other words, it is a unit that includes a diesel-powered engine used to maintain the temperature of products, for example food, that are transported in an off-road application such as a train or an off-road truck. For more information, see F.3.

#### C.17 What are transition engines?

A transition engine is an engine that meets the emission standards in section 13 of the Regulations and is either installed in or on a machine or will be installed in or on a machine before the end of the transition engine time frames prescribed. A transition engine is similar to a United States "flex" engine built under section 625 of CFR 1039. The transition engine provisions are similar to the United States flex engine provisions. Both have the same emission standards and time frames. Both also have reporting requirements. Meeting the Canadian requirements,

however, is the responsibility of the importer or the Canadian engine manufacturer.

An engine meeting the United States flex engine emission standards will meet the Canadian transition engine standards. Note that the United States program is quantity limited. This means that in some cases a Canadian transition engine or an imported United States flex engine may not be exported to the United States. Contact your EPA representative, as well as your engine or machine manufacturer, for appropriate guidance.

For more information on transition engines, see:

- F.6 for detailed information on the transition engine provisions;
- F.6.1 for specific information on the emission standards and corresponding time frames;
- H.1 and H.10 for importation requirements;
- F.6.5 for reporting requirements; and
- G.5 and Appendix VI for labelling and other evidence of conformity requirements.

### C.18 Engine for which the Governor in Council has granted an exemption

In scenarios where the engine would normally be covered by the Regulations, a *company* may apply to the Governor in Council to be granted an exemption from any standard prescribed under the Regulations. In order for such a request to be considered, it must generally be submitted **before** importation. Under section 156 of the Act, an exemption from any prescribed standard will be granted only if, in the opinion of the Governor in Council, compliance with that standard would:

- a. create substantial financial hardship for the *company*;
- impede the development of new features for safety, emission monitoring or emission control that are equivalent or superior to those that conform to prescribed standards; or
- c. impede with the development of new kinds of engines or engine components.

An exemption may not be granted for a model of engine if the exemption would substantially diminish the control of emissions from the engine or if the *company* applying for the exemption has not provided evidence that it has attempted in good faith to bring the model into conformity with all applicable prescribed standards.

Under subsection 156(4) of the Act, an exemption for financial hardship may not be granted:

- 1. if the annual world production of vehicles or engines manufactured by the *company* or by the manufacturer of the model that is the subject of the application for exemption exceeded 10 000 vehicles or engines; or
- 2. if the annual total number of vehicles or engines manufactured for, or imported into, the Canadian market by the *company* exceeded 1000 vehicles or engines.

Section 23 of the Regulations describes the information to be provided to the Minister when applying for an exemption, and Section 24 describes the label to be applied to an engine for which an exemption has been granted.

#### D. Persons subject to the Regulations

#### D.1 Introduction to persons affected by the Regulations

Generally, four different types of persons could be subject to the Regulations:

- 1. an importer of engines or machines for the purpose of sale (a *company* under the Act);
- 2. a person who is not a *company* importing an engine or machine;
- 3. a Canadian engine or machine manufacturer; and
- 4. a distributor of Canadian engines or machines containing Canadian engines.

#### D.2 What is a company?

In section 149 of the Act, a *company* is defined as a "person" who:

- a. is engaged in the business of manufacturing vehicles, engines or equipment in Canada;
- b. is engaged in the business of selling to other persons, for the purpose of resale by those persons, vehicles, engines or equipment obtained directly from a person described in paragraph (a) or the agent of such person; or
- c. imports any vehicle, engine or equipment into Canada for the purpose of sale (this includes importing equipment to lease).

Note that if you are not a *company*, then you are a person under the Act.

#### D.3 Who is a Canadian engine manufacturer?

A Canadian engine manufacturer is a person or *company* in Canada who, before the sale of the engine to the first retail purchaser:

- 1. modifies equipment on the engine (for example, by adding or modifying the emission control system);
- 2. manufactures an engine from parts; and
- 3. modifies an engine (for example, adapts a diesel engine to run on natural gas).

As a Canadian engine manufacturer, you may need to apply the national emissions mark to your engines. See section E on the national emissions mark.

#### D.4 How is a distributor of Canadian engines defined?

A person who is engaged in the business of selling to other persons, for the purpose of sale by those persons, engines obtained directly from a Canadian engine manufacturer or its agent, is a distributor of Canadian engines and is a *company* under the Act.

Engines manufactured in Canada that are transported between provinces or territories may require a national emissions mark (see Chapter E). Only one national emissions mark is required per engine.

### D.5 What are the regulatory requirements for each type of "person" affected by the Regulations?

Table 1 provides a summary of the responsibilities for the four different types of persons who have obligations under the Regulations. When necessary, more detailed information is provided elsewhere in this guidance document as outlined below.

Note that the regulatory requirements differ depending on the final application of the engine. For example, in the case of a *company* that imports engines or machines for the purpose of sale, the requirements are different from a person importing for personal use.

**Table 1: Summary of regulatory requirements** 

	Importer of engine or machine for the purpose of sale	Importer of engine or machine for personal use (i.e. not for sale)	Canadian engine manufacturer	Distributor of Canadian engines <sup>3</sup>	Chapter in the guidance document
Affix the national emissions mark			<b>√</b>	<b>√</b>	E
Supply engines that comply with emission standards	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	F
Provide evidence of conformity	<b>√</b> (2)	(1)	<b>√</b>	<b>√</b>	G
Submit an importation declaration	<b>~</b>	✓ (3)			Н
Submit transition engine annual report (if applicable)	<b>√</b>	<b>√</b> (3)	<b>√</b>	<b>√</b>	F
Affix or ensure prescribed label is affixed to the engine	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Н
Provide maintenance instructions	<b>√</b> (2)		<b>√</b>	<b>√</b>	I
Cause notice of defect to be given, if necessary	<b>√</b>		<b>√</b>	<b>√</b>	I
Affix identification number	✓	<b>√</b>	<b>√</b>	✓	Н

<sup>&</sup>lt;sup>3</sup> See D.4 for more information.

#### Table 1 notes:

- (1) The presence of the prescribed label on the engine is considered to be evidence that the engine conforms to the prescribed emission standards when it is imported by a person for purposes other than sale (for personal use).
- (2) The *company* may arrange with the engine or machine manufacturer that certain required information be provided by the engine or machine manufacturer on behalf of the *company*.
- (3) This requirement does not apply to a person who is not a company and who imports five engines or less per calendar year.

### D.6 How are foreign engine manufacturers affected by the Regulations?

Engines produced by foreign manufacturers and imported into Canada must conform to the Act and the Regulations.

Importers may require the assistance of a foreign engine manufacturer to demonstrate compliance with the Regulations. In particular, the assistance of foreign engine manufacturers may be required to ensure that engines imported into Canada meet the prescribed standards and to provide evidence of conformity to that effect. These requirements are described in chapters F and G.

A foreign entity at a location outside of Canada is not considered to be a *company* under the Act unless it engages, in Canada, in one of the activities under the definition of *company* outlined in D.2. In the case of engines manufactured outside of Canada, the responsibility for complying with the applicable provisions of the regulations and the Act is with the person or *company* in Canada who imports<sup>4</sup> the engine and not with the foreign entity. In the event of a violation of a provision of the Act or Regulations in respect of an imported engine, the person or *company*, in Canada, who imports the engine, would be subject to the enforcement provisions of the Act.

22

<sup>&</sup>lt;sup>4</sup> The ordinary meaning of import is to bring into the country or to cause to be brought into the country.

#### E. National emissions mark

#### E.1 Introduction to national emissions mark

Section 152 of the Act combined with subsections 5(3) and 5(4) of the Regulations does not allow a *company* to transport engines that are manufactured (see D.3 on manufacturers) in Canada between provinces or territories unless the engine has a national emissions mark (NEM) applied. Note the provision in 5(4) of the Regulations, which states that the NEM is not required if the engine is covered by an EPA certificate, sold concurrently and its manufacturing is completed by the addition of an emission control system in accordance with the EPA certificate and installation instructions for the engine.

The national emissions mark is the symbol shown in Figure 2. Section 150 of the Act specifies that the national emissions mark is a national trademark and establishes limitations on any person's use of the mark (or the use of any other mark in such a manner that it is likely to be mistaken for a national emissions mark). *Companies* must obtain the Minister's authorization to use the national emissions mark.



Figure 2: The national emissions mark

### E.2 Are there any conditions in regard to affixing a national emissions mark to an engine?

Section 153 of the Act prohibits a *company* from applying the national emissions mark to an engine unless the emission standards are met and the evidence of conformity has been produced in the prescribed form and manner. The company shall also apply for and receive the Minister's authorization to do so as described in subsection 6(1). The emission standards that the engine must meet can be found in sections 9 to 13 of the Regulations.

## E.3 What are the requirements for the size, location and manner of affixing the national emissions mark on an engine?

Requirements on the size, location and manner of affixing the national emissions mark to engines or machines can be found in sections 7 and 8 of the Regulations.

The national emissions mark shall be at least 7 mm in height and 10 mm in width. The company authorization number assigned by the Minister to the *company* (described in E.5) shall be in figures that are at least 2 mm in height and be located immediately below or to the right of the national emissions mark.

The national emissions mark shall be placed next to the EPA engine information label or, if there is no such label, in a visible, readily accessible location.

The national emissions mark shall be on a permanently applied, weather resistant label that is readable.

#### E.4 Who can apply the national emissions mark?

Under subsection 6(1) of the Regulations, a *company* that has received authorization from the Minister may apply the national emissions mark to vehicles, engines or equipment.

### E.5 How does a company get the Minister's authorization to use the national emissions mark?

A *company* must submit an application to get the Minister's authorization to use the national emissions mark. The following information must be included in the application:

- 1. the name and street address of the head office of the company and, if different, its mailing address;
- 2. a statement that the company is seeking to obtain the authorization to apply the national emissions mark under these Regulations;
- 3. the street address of the location where the NEM will be applied; and
- 4. information to show that the company is capable of verifying compliance with the standards in these Regulations (see E.6 and chapter G for more information on compliance verification).

A *company*'s application must be signed by a person who is authorized to act on behalf of the *company*.

When the Minister authorizes a *company* to use the national emissions mark, a company authorization number will be assigned to the *company*. The company

authorization number is not to be confused with the unique identification number that must be engraved on every engine as discussed in G.9.

# E.6 What information could satisfy the requirement of paragraph 6(2)(*d*) of the Regulations to show that the company is capable of verifying compliance with the standards?

Information to show that a *company* is capable of verifying compliance with the regulatory standards may be presented in various forms, including but not limited to the following:

Recent experience in obtaining EPA emission certification
 When applicable, a *company* may provide the following statement:

"The *company* has been issued certificates of conformity by the United States EPA within the last five years as evidence of conformity with United States regulatory emission standards for engines covered under the Off-Road Compression-Ignition Engine Emission Regulations."

#### 2. Technical information

The *company* may provide technical information to show that it is capable of verifying compliance with the standards set out in the Regulations including, but not limited to, information describing the capabilities of the emission test facilities operated by, or on behalf of, the *company* to produce evidence that its engines conform to the standards set out in the Regulations. This may include evidence that the emission test facility used on behalf of the *company* has produced test results used in support of a successful application to the EPA for the issuance of a certificate of conformity.

The Minister will assess the information provided to determine if the *company* meets the requirements for being authorized to affix the national emissions mark on engines.

#### E.7 Do imported engines require the national emissions mark?

No. Affixing a national emissions mark to imported engines is not required. Nonetheless, a *company* that is authorized by the Minister to use the national emissions mark may apply the mark to engines that are imported into Canada, provided they conform to the requirements of the Regulations.

## E.8 Is a national emission mark required on an incomplete engine being imported into Canada on which an emissions control system will be installed?

The answer depends on how the emissions control system is installed. If the incomplete engine is EPA certified, sold concurrently and the emissions control system is installed in accordance with the supplied instructions in compliance with the EPA's certified configuration, then the engine does not require a national emissions mark (NEM). However, if the emissions control system is installed in a different manner than what is stated in the EPA certificate, then the company installing the emissions control system must apply a NEM. A company must also apply a NEM if the engine is not EPA certified and its manufacture is being completed in Canada.

The Canadian engine manufacturer is responsible for submitting evidence of conformity in accordance with section 17 of the Regulations. A NEM would be required if the engine was to be transported between provinces or territories. More information on incomplete engines can be found in H.11.

#### F. Emission standards and requirements

#### F.1 Introduction to emission standards

The Regulations set different emission standards and provisions for different types and power categories of engines. The following list presents a summary of the various emissions standards and provisions, as well as the corresponding sections of the Regulations where these can be found:

- emission control systems and defeat devices (section 9 of the Regulations);
- 2. exhaust emission standards (section 10 of the Regulations);
- 3. crankcase and smoke emission standards (section 10 of the Regulations);
- 4. adjustable parameters (section 11 of the Regulations);
- 5. transportation refrigeration unit alternate emission standards (section 11.1 of the Regulations);
- 6. replacement engines (section 12 of the Regulations); and
- 7. transition engine emission standards (section 13 of the Regulations).

#### F.2 What are the exhaust emission standards?

The exhaust emission standards, specified in section 10 of the Regulations, establish maximum levels of carbon monoxide (CO), particulate matter (PM) and either combined or separate non-methane hydrocarbon (NMHC) and oxides of nitrogen (NO $_x$ ). The exhaust emission standards are divided into classes based on engine power. The standards are defined in terms of the mass of the pollutant per unit of engine work, expressed in grams per kilowatt-hours.

The standards are aligned with those of the EPA, and the Regulations incorporate by reference sections 89.112, and 89.120 as well as sections 1039.101, 1039.102, 1039.105 and 1039.107 of the CFRs.

Tables 2 to 5 provide a summary of the exhaust emission standards.

Table 2: Tier 2 engine classes and exhaust emission standards

Power (kW)	Model years	PM g/kW hr	NO <sub>x</sub> g/kW hr	NMHC g/kW hr	NO <sub>x</sub> +NMHC g/kW hr	CO g/kW hr
<8	2006-2011	0.80	ı	ı	7.5	8.0
≥8<19	2006-2011	0.80	-	-	7.5	6.6
≥19<37	2006-2011	0.60	1	1	7.5	5.5
≥37<75	2006-2007	0.40	-	-	7.5	5.0
≥75<130	2006	0.30	-	-	6.6	5.0
>560	2006-2011	0.20	-	1	6.4	3.5

Table 3: Tier 3 engine classes and exhaust emission standards

Power (kW)	Model years	PM g/kW hr	NO <sub>x</sub> g/kW hr	NMHC g/kW hr	NO <sub>x</sub> +NMHC g/kW hr	CO g/kW hr
≥37<75	2008-2011	0.40	-	-	4.7	5.0
≥75<130	2007-2011	0.30	-	-	4.0	5.0
≥130<560	2006-2011	0.20	-	-	4.0	3.5

Table 4: Interim Tier 4\* engine classes and exhaust emission standards

Power (kW)	Model years	PM g/kW hr	NO <sub>x</sub> g/kW hr	NMHC g/kW hr	NO <sub>x</sub> +NMHC g/kW hr	CO g/kW hr
<8 (1)(5)	2012+	0.40	-	-	7.5	8.0
<8 (2)(5)	2012+	0.60	-	-	7.5	8.0
≥8<19 (5)	2012+	0.40	-	-	7.5	6.6
≥19<37 (5)	2012	0.30	-	-	7.5	5.5
≥37<56 (5) (option 1)	2012	0.3	-	-	4.7	5.0
≥37<56 (5) (option 2)	2012	0.03	-	-	4.7	5.0
≥56<75 <sup>1</sup>	2012-2013	0.02	-	-	4.7	5.0
≥75<130 <sup>1</sup>	2012-2013	0.02	-	-	4.0	5.0
≥130≤560	2012-2013	0.02	-	-	4.0	3.5
>560≤900	2012-2014	0.10	3.5	0.40	-	3.5
>900 (3)	2012-2014	0.10	3.5	0.40	-	3.5
>900 (4)	2012-2014	0.10	0.67	0.40	-	3.5

Table 5: Tier 4 engine classes and exhaust emission standards

Power (kW)	Model years	PM g/kW hr	NO <sub>x</sub> g/kW hr	NMHC g/kW hr	NO <sub>x</sub> +NMHC g/kW hr	CO g/kW hr
<8 (1)(5)	2012+	0.40	-	-	7.5	8.0
<8 (2)(5)	2012+	0.60	-	-	7.5	8.0
≥8<19 (5)	2012+	0.40	-	-	7.5	6.6
≥19<37	2013+	0.03	-	-	4.7	5.5
≥37<56	2013+	0.03	-	-	4.7	5.0
≥56<130	2014+	0.02	0.40	0.19	-	5.0
≥130≤560	2014+	0.02	0.40	0.19	-	3.5
>560 (3)	2015+	0.04	3.5	0.19	-	3.5
>560 (4)	2015+	0.03	0.67	0.19	-	3.5

#### Notes for tables 2 to 5:

- (1) All engines except hand-start, air-cooled, direct injection.
- (2) Hand-start, air-cooled, direct injection engines.
- (3) All except gen-set drive engines.
- (4) Gen-set drive engines.
- (5) Transient testing and NTE provisions for engines below 56 kW are delayed until 2013 in accordance with CFR 1039.102(a)(1)(i) and 1039.102(g)(1).

#### F.3 Are there evaporative emission standards?

Yes. There are evaporative emission standards for engines fuelled with a volatile liquid fuel (i.e. not diesel fuel) described in the following subparagraphs of the Regulations:

- 10(1)(b)(iv) for the 2012 to 2014 model years, and
- 10(1)(c)(iv) for the model year of 2015 or later.

<sup>&</sup>lt;sup>1</sup> For the 2011 model year, the Tier 3 standards apply.

<sup>\*</sup> Some of the Tier 4 standards apply for the interim Tier 4 standards.

#### F.4 Are there crankcase and smoke emission standards?

Yes. The crankcase and smoke emission standards set limits to the emissions coming from the crankcase and the smoke that is emitted from the engine. These limits are described in the following subparagraphs of the Regulations:

- 10(1)(a)(ii) and (iii) for the 2006 to 2011 model years,
- 10(1)(b)(ii) and (iii) for the 2012 to 2014 model years, and
- 10(1)(c)(ii) and (iii) for the 2015 and beyond model years.

### F.5 Are there alternate emissions standards for transportation refrigeration units?

For a limited period of time, engines used to power a transportation refrigeration unit (TRU), have alternate standards. This applies to the 2012 model year for engines with a gross power of less than 37kW and the 2012 to 2015 model years for engines with a gross power between 37 and 56kW. These standards are set in new section 11.1 of the Regulations. In order to make use of these alternate standards, engines used in TRUs must be labelled. This label must meet the requirements of labels under section 8 of the Regulations and provide the following information:

#### A Canadian label that includes:

- a statement, in both official languages, that the engine is to be used only in a transportation refrigeration unit. An example of this statement could read, "this engine is to be used only in a transportation refrigeration unit under section 11 of the Off-Road Compression-Ignition Engine Emission Regulations";
- 2. the model year of the engine;
- 3. the date of manufacture of the engine;
- 4. the gross power category of the engine;
- 5. an identification of the emission control system (e.g. DPF); and
- 6. the name of the manufacturer.

Alternatively, the label may be the United States emission control information label referred to in section 645(d)(1), subpart G, of CFR 1039.

#### F.6 What are the transition engine provisions and standards?

The transition engine provisions in section 13 of the Regulations allow, for certain periods of time, the import and manufacture of engines meeting either of the previous-tier standards (e.g. Tier 2 and Tier 3 standards or the interim Tier 4 standards) if they are installed in or on a machine before the end of the set time frames. The standards and time frames are based on the United States flex engine provisions found in CFR 1039.625.

#### F.6.1 What are the transition engine standards and time frames?

The standards depend on the maximum power of the engine as well as the time frames. Table 6 provides an outline of the standards referred to in subsection 13(2).

Table 6: Transition engine time frames

Power category (kW)	Time frame (general availability)	Emission standard	Time frame (delayed availability)	Emission standard
<19	Until December 31, 2014	Tier 2	n/a	n/a
19 to <37	Until December 31, 2014	Tier 2	Until December 31, 2018	Interim Tier 4
37 to <56	Until December 31, 2014	Tier 2	Until December 31, 2018	Interim Tier 4
56 to <75	Until December 31, 2018	Tier 3	January 1, 2014, to December 31, 2020	Interim Tier 4 (Phase-out)
75 to <130	Until December 31, 2018	Tier 3	January 1, 2014, to December 31, 2020	Interim Tier 4 (Phase-out)
130 to ≤560	Until December 31, 2017	Tier 3	January 1, 2014, to December 31, 2020	Interim Tier 4 (Phase-out)
	Until December 31, 2012	Tier 1	n/a	n/a
>560	Until December 31, 2017	Tier 2	January 1, 2015, to December 31, 2021	Interim Tier 4

For example, an engine in the 75 kW – 130 kW power category must meet the final Tier 4 standards beginning with the 2014 model year. The transition engine provisions would allow the import or manufacture of these engines meeting Tier 3 standards up until December 31, 2018. Alternatively, engines in this power category may meet the interim Tier 4 standards until December 31, 2020. Prior to January 1, 2014, engines in this power category that meet the interim Tier 4 standards would be considered "compliant" engines and not transition engines.

#### F.6.2 Do transition engines need to be labelled?

Yes. See G.7 and Appendix VI on labelling requirements.

### F.6.3 Is there a limit to the number of transition engines I can import or manufacture?

No. There is no limit to the number of transition engines that can be imported or manufactured as long as the engine is installed in or on a machine before the end of the time frame corresponding to the engine's power category.

### F.6.4 Does Environment Canada have any expectations on the use of the transition engine provisions?

Yes. Environment Canada expects, and has been assured by engine and machine manufacturers, that:

- 1. the proportion of transition engines in Canada will be similar to the proportion of flex engines in the U.S.; and
- 2. the same machine models that are offered in the United States will be offered for sale in Canada during the same time frames. For example, if only a Tier 4 machine (i.e. a bulldozer) is offered in the U.S., only the same Tier 4 model will be offered in Canada (i.e. the equivalent Tier 3 bulldozer will not be offered).

Environment Canada will be monitoring the use of the transition engine provisions through annual reporting and will be comparing the use of the provisions with the flex engine provisions in the United States. If the use of the transition engine provisions, in comparison to their use in the United States, becomes excessive, Environment Canada will consider modifying the provisions in the future.

#### F.6.5 Are there reporting requirements for transition engines?

Yes. If you import or are a Canadian engine manufacturer of transition engines or machines containing a transition engine, you must submit an annual report as set in section 13.1 of the Regulations. The report will list the number and type of transition engines you have imported or manufactured in the preceding calendar

year. Note that the report must be submitted to Environment Canada within 90 days after the end of the calendar year. The reporting requirements require the following company information:

- 1. the name, street address and, if different, mailing address; and
- 2. the business number assigned by the Minister of National Revenue.

For each transition engine that is not installed in or on a machine (i.e. a loose engine) intended for use or sale in Canada:

- 1. the name of the manufacturer;
- 2. the power category;
- 3. the model year;
- 4. the emission standard referred to in subsection 13(2) of the Regulations according to which the engine was manufactured; and
- a statement as to whether or not the engine will be installed in a machine model that is sold concurrently in Canada and in the United States (see G.5).

For transition engines already installed in or on a machine and intended for sale or use in Canada:

- 1. the name of the engine manufacturer;
- 2. the power category;
- 3. the model year;
- 4. the emission standard referred to in subsection 13(2) of the Regulations according to which the engine was manufactured; and
- 5. a statement as to whether or not at least one machine of the same model as the one in which the engine is installed is sold concurrently in Canada and in the United States (see G.5).

A company must also provide the following with respect to any engine(s) the company imports or manufactures (whether installed in or on a machine or not) that meets the standards (an interim Tier 4 or Tier 4 engine, a transportation refrigeration unit engine, etc.):

- 1. the name of the engine manufacturer;
- the gross power or gross power category;
- the model year;
- 4. the emission standard according to which the engine was manufactured; and
- a statement as to whether or not the engine is installed in or on a machine.

Note, for the above reports, if more than one engine shares the same characteristics, instead of repeating the information for each engine, provide the information and number of engines to which the information applies. For example, if 10 loose transition engines have the same manufacturer, power category, model year, emission standard and statement, provide the information once indicating that it applies to 10 engines.

# F.6.6 What is meant by "installed" in a machine as referenced in paragraph 13(1)(b)?

Installed means that the engine is permanently placed in or on a machine and the machine is able to operate.

# F.7 What are the emission requirements for engines that I plan on exporting outside Canada?

Under paragraph 155(1)(b) of the Act, an engine in transit through Canada, from a place outside Canada to another place outside Canada, does not have to comply with the requirements of the Regulations, if it is accompanied by written evidence, such as an invoice, that the engine will not be sold for use or be used in Canada. This requirement is also found in subsection 5(2) of the Regulations.

# F.8 What happens if I import a certain number of engines, and I do not know at the time of import if they will be exported?

In this case, since you may use these engines or sell them for use in Canada, you should import them as if they were to remain in Canada, meaning they must be in compliance with the Regulations. If you are importing transition engines, you will be able to exclude any engines you have exported in your annual report.

# F.9 Is an engine covered by an EPA certificate of conformity and sold concurrently in Canada and the United States required to meet the Canadian emission standards?

Under subsection 14(1) of the Regulations, an engine covered by an EPA certificate of conformity and sold concurrently in Canada and the United States must conform to the standards set out in the EPA certificate of conformity instead of the standards set out in sections 9 to 11 of the Regulations. All other requirements of the Regulations (evidence of conformity, importation documents, notice of defect, etc.) must also be met.

In some cases, it is possible for the EPA to issue a certificate of conformity for an engine with emission levels above the applicable standard under the United States EPA averaging, banking and trading program. Engines certified under the EPA averaging provisions may not exceed a prescribed maximum emission level.

# F.10 Engine in transit through Canada, from a place outside Canada to another place outside Canada

Under paragraph 155(1)(b) of the Act, an engine in transit through Canada, from a place outside Canada to another place outside Canada, does not have to comply with the requirements of the Regulations, if it is accompanied by written evidence, such as an invoice, that the engine will not be sold for use or be used in Canada.

### F.11 Engine imported exclusively for use by a visitor to Canada

Under paragraph 155(1)(c) of the Act, an engine imported exclusively for use by a visitor to Canada or by a person passing through Canada to another country does not have to meet the requirements of the Regulations.

## G. Evidence of conformity

### **G.1** Introduction to evidence of conformity

This section aims to provide guidance on the provisions of the Regulations regarding evidence of conformity requirements: specifically, what is required and what procedures should be followed when submitting evidence of conformity for off-road compression-ignition engines manufactured for sale<sup>5</sup> in Canada or imported into Canada.

#### G.2 Definitions

Provided below are definitions of terms used throughout this section. A bolded term indicates that the definition was created solely for the purpose of this document. Terms that are not bolded are defined either in the Regulations or in the Act.

"Canada-unique engine" means an engine of a specific engine family that is either not covered by a valid EPA certificate or not sold concurrently in Canada and in the United States. Generally, all engines that do not meet the criteria set out in section 16 of the Regulations fall under paragraph 17(1)(b) and are called "Canada-unique". Transition engines are a particular case. More information is provided later in this section.

"Company" means a person who:

- (a) is engaged in the business of manufacturing vehicles, engines or equipment in Canada;
- (b) is engaged in the business of selling to other persons, for the purpose of resale by those persons, vehicles, engines or equipment obtained directly from a person described in paragraph (a) or the agent of such a person; or
- (c) imports any vehicle, engine or equipment into Canada for the purpose of sale.
- **"Engine"** means an off-road engine that is prescribed under subsection 5(1) of the Regulations. Regulations apply to all engines of the 2006 and later model years manufactured or imported into Canada (section 3 of the Regulations). Engines that are referred in subsection 5(2) of the Regulations are excluded.
- "Engine family" means a group of similar engine models within a manufacturer's product line that are similar with respect to their design and emissions characteristics. Engine family classifications are used for the purpose of demonstrating compliance with emission standards. The provisions pertaining

<sup>&</sup>lt;sup>5</sup> Regulations apply to engines of the 2006 and later model years manufactured in or imported into Canada (section 3 of the Regulations). Engines that are referred to in subsection 5(2) of the Regulations are excluded.

to engine family specifications are contained in sections 89.116 or 1039.230 of the CFRs.

- "Engine family specifically listed" means an engine for which the engine family is specifically listed on a valid EPA certificate of the same model year, and which is in a configuration permitted by the EPA certificate.
- "EPA certificate" means a certificate of conformity to United States federal standards issued by the EPA.
- "Transition machine" means a machine that contains a transition engine as defined in section 13 of the Regulations.
- "Type 1" means an engine family that is covered by an valid EPA certificate, and sold in Canada but not in the United States.
- "Type 3" means an engine family that is neither covered by an valid EPA certificate nor sold concurrently in Canada and the United States.

### G.3 Background on the evidence of conformity

An off-road compression-ignition engine must conform to the standards applicable at the time when its manufacture was completed. Evidence of conformity for those standards must be produced in the prescribed form. The following flow-chart illustrates the different "types" of engines and identifies which section addresses the appropriate evidence of conformity requirements.

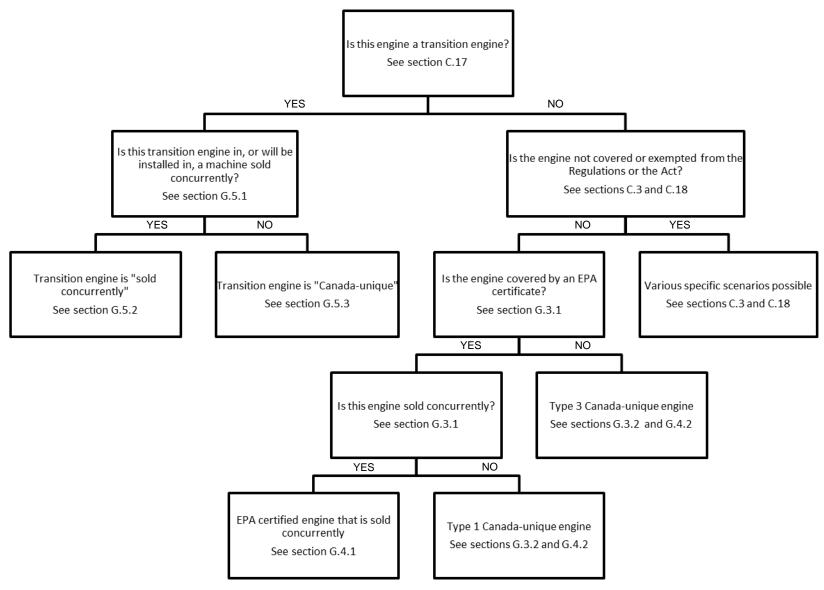


Figure 3: Determination of evidence of conformity requirements to the *Off-Road Compression-Ignition Engine Emission Regulations* 

# G.3.1 Engines covered by an EPA certificate and sold concurrently in Canada and in the United States (Section 16)

Section 16 of the Regulations identifies the evidence of conformity that is required for an engine that is covered by a valid EPA certificate<sup>6</sup> and sold concurrently in Canada and in the United States.

### **Engines covered by an EPA certificate:**

For the purpose of the Regulations, an engine is considered to be covered by an EPA certificate if its engine family is specifically listed on a valid EPA certificate. "Engine family specifically listed" is defined in G.2.

### **Engines sold concurrently:**

For the purpose of the Regulations, an engine sold in Canada is considered to be sold concurrently if any one of the following applies within one year (365 days) preceding the engine's importation into Canada, the application of the NEM or, in the case of 153(2), before the engine leaves the possession or control of the company:

- 1. An engine of the same engine family and model year is sold to the first retail purchaser or leaser in the United States. This must be substantiated with any of a, b or c below:
  - a. copy of dated invoice to the first U.S. retail purchaser/leaser
  - b. copy of dated invoice to a U.S. party who sells or leases at the U.S. retail level (e.g. dealer)
  - c. copy of dated purchase order between a U.S. party and the first U.S. retail purchaser\leaser
- A dated advertisement of the same engine family of the same model year targeted at U.S. consumers (this could include sales brochure, printed ad, magazine, price list, etc.) demonstrating that the product was actively marketed and available for delivery in the U.S.
- 3. A dated U.S. manufacturer/importer/dealer list for the same engine family of the same model year for the U.S. demonstrating that the product was actively marketed and available for delivery in the U.S.

If the above evidence of conformity pertains to a machine within which an engine is installed, then the evidence must include supporting documentation matching the engine to the machine.

Before the import of an engine, before applying the NEM, or, in the case of 153(2), before the engine leaves the possession or control of the company, a company must ensure that it has the complete evidence of conformity available (including EPA certification) and at least one of the above-listed concurrent sale documents that is appropriately dated. The evidence of conformity must be available **prior** to any of the above action taking place.

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<sup>&</sup>lt;sup>6</sup> An example of an EPA certificate is included in Appendix I.

Otherwise, a company must produce a Canada-unique submission of evidence of conformity as per G.4.2.

### G.3.2 Canada-unique engines (paragraph 17(1)(b))

## Type 1<sup>7</sup> – Specifically listed on an EPA certificate, and sold in Canada but not in the United States

The engine family is specifically listed on a valid certificate issued by the EPA, but it is not sold concurrently in the United States. Evidence of conformity must be submitted to Environment Canada as per paragraph 17(1)(b) of the Regulations because the engine is not sold concurrently in the two countries.

## Type 3 – Neither specifically listed on an EPA certificate or sold concurrently in Canada and the United States

Evidence of conformity to the Regulations must be submitted to Environment Canada as per paragraph 17(1)(b), because there is no valid EPA certificate covering that engine of that model year, and the engine is not sold concurrently in the two countries.

The requirements for submitting evidence of conformity to the Regulations are stated in paragraph 17(1)(b):

**17(1)(b)** with respect to an engine other than one referred to in paragraph (a), evidence of conformity shall be obtained and produced by a company in a form and manner that is satisfactory to the Minister and shall include a copy of the label referred to in section 10.1, 11.1, 12 or 13, as the case may be.

# G.4 Submission of the evidence of conformity: Required documentation and timing

When a company submits evidence of conformity to Environment Canada, the company is responsible for identifying which information in the submission is confidential. Any confidential information will be dealt with in accordance with the *Access to Information Act*, which is available at:

http://laws-lois.justice.gc.ca/eng/acts/A-1/

and the Privacy Act, which is available at:

http://laws.justice.gc.ca/en/P-21/index.html

<sup>&</sup>lt;sup>7</sup> Note that they have been labeled 1 and 3 to align with the types of Canada-unique submissions in other Regulations under the Act.

#### G.4.1 Engines sold concurrently as described in section 16

If the engine family of the engine is specifically listed on a valid EPA certificate (and is sold concurrently in Canada and in the United States), it automatically falls under section 16 of the Regulations, and the evidence of conformity information listed in that section is to be submitted only upon written request from Environment Canada. This information should be maintained and provided in accordance with section 18 of the Regulations. The following are the documentation requirements to meet section 16:

- **16**. In the case of an engine referred to in subsection 14(1), evidence of conformity for the purposes of paragraph 153(1)(*b*) of the Act in respect of a company shall consist of:
- (a) a copy of the EPA certificate covering the engine;
- (b) a document demonstrating that the engine covered by the EPA certificate is sold concurrently in Canada and in the United States;
- (c) a copy of the records submitted to the EPA in support of the application for the issuance of the EPA certificate in respect of the engine; and
- (d) a United States emission control information label that is permanently affixed in the form and location set out in section 110, subpart B, of CFR 89, section 135, subpart B, of CFR 1039 or, if applicable, section 645(d)(1) of that subpart for the applicable model year of the engine.

### G.4.2 Canada-unique engines as described in paragraph 17(1)(b)

Since the Regulations are aligned with those of the United States, the general intent is to enable companies to establish compliance by submitting information similar to that which is provided to obtain an EPA certificate and required under paragraph 16(c) of the Regulations. The following paragraphs summarize the information that shall be obtained and produced "in a form and manner satisfactory to the Minister", for Canada-unique engines other than transition engines. It should be noted that this list may change from time to time to respond to evolving testing and information requirements for different types of engines, and to remain aligned with the requirements in the United States.

A separate submission is required for each engine family. For an engine that is either not covered by an EPA certificate of conformity or sold concurrently in Canada and in the United States, the evidence of conformity in this situation must be submitted before the importation of the subject engine, or in the case of 153(2) before the engine leaves the possession or control of the company, or before affixing the national emissions mark to the engine.

Appendix II illustrates the procedure to provide evidence of conformity "in a form and manner satisfactory to the Minister" for the engines referred to in paragraph 17(1)(b) of the Regulations.

<sup>&</sup>lt;sup>8</sup> A company that submits its evidence of conformity following the importation of the subject engines in reliance on subsection 153(2) of the Act must submit to the Minister, **prior to importation**, an importation declaration as per section 21 of the Regulations.

The information that needs to be submitted varies according to the type of Canada-unique engine under consideration, as shown in Table 7:

Table 7: Engine types under paragraph 17(1)(b) (excluding transition engines), required evidence of conformity and submission timelines

Engine type	What to submit	When to submit
Type 1 – Specifically listed on an EPA certificate and sold in Canada but not in the United States	A copy of the EPA certificate that shows that the engine family is specifically listed on a valid EPA certificate <sup>(1)</sup>	Before the importation of the subject engine, or in the case of 153(2) before the subject engine leaves the possession or control of the company <sup>(2)</sup> , or before affixing the national emissions mark to the engine
	A copy of the records submitted to the EPA in support of the application for the issuance of the EPA certificate	
	A statement of compliance letter	
	An engine information label	
	A copy, in both official languages, of the emission- related maintenance instructions	
Type 3 – Neither specifically listed on an EPA certificate nor sold concurrently in Canada and the United States  (Excluding transition engines)	<ul> <li>Information equivalent to what must be submitted to the EPA for the issuance of the EPA certificate in respect of an engine, as described in G.3.2, including the technical information</li> <li>A statement of compliance</li> </ul>	
	letter	
	An engine information label	
	A copy, in both official languages, of the emission-related maintenance instructions	

#### Notes for Table 7:

- (1) The submission of an EPA certificate as the evidence of conformity for a type 1 engine is acceptable where it establishes that the engine family of the engine complies with all applicable standards set out in the *Off-Road Compression-Ignition Engine Emission Regulations* established under the Act, as should be stated in the statement of compliance letter (e.g., no deviations from prescribed standards).
- (2) A company that submits its evidence of conformity following the importation of the subject engines in reliance on subsection 153(2) of the Act must submit to the Minister, prior to importation, an importation declaration, as per section 21 of the Regulations.

It should be noted that the information requirements that are listed above reflect what information constitutes a form and manner satisfactory to the Minister. This information must be submitted before the importation of the subject engine, or in the case of 153(2) before the engine leaves the possession or control of the company, or before affixing the national emissions mark to the engine.

#### G.4.2.1 Statement of compliance letter

A submission of evidence of conformity to the Regulations for Canada-unique engines must contain an original signed letter from an authorized representative of the company. An example of a statement of compliance letter is provided in Appendix III.

The letter must include as a minimum:

- 1. Name and address of the company;
- 2. Business number assigned to the company by the Minister of National Revenue;
- 3. The identification (e.g. make, model, model year, engine family) of the engines and machines (if applicable);
- 4. Estimated projected Canadian sales;
- 5. An unconditional statement of compliance with all the applicable exhaust emission standards set out in the *Off-Road Compression-Engine Emission Regulations* established under the *Canadian Environmental Protection Act*, 1999;
- 6. A statement that the engines are manufactured to the same specifications as those set out in the evidence of conformity;
- 7. A statement acknowledging that the signatory is authorized to act on behalf of the company;
- 8. A request for an acknowledgment by Environment Canada that the evidence of conformity submitted has been obtained and produced in a form and manner satisfactory to the Minister;

The following additional information may also be included:

- The identity of persons (both inside or outside of the company) that Environment Canada may contact regarding the submission (e.g. technical contacts for importers);
- 10. An indication of whether some information is to be treated as confidential; and
- 11. Any other information believed to be relevant.

#### G.4.2.2 Technical information

The technical information required is equivalent to that specified in paragraph 16(c) of the Regulations. The list of technical information that Environment Canada requires can be found in Appendix V. It is based on information that is equivalent to the records submitted to the EPA in support of the application for the issuance of the EPA certificate.

If the engine is or was covered by an EPA certificate, a copy of the most recent records submitted to the EPA in support of the application for the issuance of the EPA certificate is deemed to be satisfactory for the technical information of the evidence of conformity. The engine covered by the submission must be manufactured to the same specifications as those set out in the most recent records submitted to the EPA.

#### G.4.2.3 Sample engine information label

For a type 1 submission, a sample drawing or copy of the engine information label must be included in the submission of evidence of conformity. The engine information label must meet all requirements of its applicable section under the appropriate part of the CFR, either section 110 of CFR 89, or section 135 or 645(d)(1) of CFR 1039.

For a type 3 submission, a sample drawing or copy of the engine information label must be included in the submission of evidence of conformity. The engine information label must meet the requirements provided in section 10.1 of the Regulations. A sample label can be found in Appendix VII. It can be provided in English or in French; however, it must contain the following bilingual compliance statement:

"THIS ENGINE CONFORMS TO ALL APPLICABLE STANDARDS FOR THE [insert model year] MODEL YEAR PRESCRIBED BY THE CANADIAN OFFROAD COMPRESSION-IGNITION ENGINE EMISSION REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE / CE MOTEUR EST CONFORME À TOUTES LES NORMES QUI SONT APPLICABLES À L'ANNÉE DE MODÈLE [inscrire l'année de modèle] EN VERTU DU RÈGLEMENT SUR LES ÉMISSIONS DES MOTEURS HORS ROUTE À ALLUMAGE PAR COMPRESSION CANADIEN EN VIGUEUR À LA DATE DE SA CONSTRUCTION"

In lieu of the compliance statement, a company has the option of affixing the national emissions mark. In that particular situation, the engine information label must also be applied to provide the necessary technical information sufficient to identify the engine for which the evidence of conformity has been assessed to be satisfactory (name of engine manufacturer, model year, engine family, etc.). It should be noted that the national emissions mark is generally required for engines that are manufactured in Canada. Before affixing the national emissions mark, the company must obtain the authorization of the Minister. Further information on the national emissions mark can be found in chapter E.

### G.5 Evidence of conformity for transition engines

This subsection will describe the evidence of conformity for a transition engine, when to submit the evidence of conformity, and other requirements applicable to transition engines.

A transition engine may be manufactured or imported if the engine either is or will be installed in or on a machine before the end of the time frame corresponding to its power category (see F.6.1).

Note that for transition engines, the requirements for evidence of conformity depend on whether the machine in which the transition engine is or will be installed is concurrently sold or not. This is different from non-transition engines, where this determination is based on the engine alone.

#### **G.5.1 Concurrent sale of transition engines**

For the purpose of the Regulations, concurrent sale of these engines is based on the machine model (see C.9) containing the transition engine. A transition engine sold in Canada is considered to be sold concurrently if any one of the following applies within the calendar year and prior to the engine's importation into Canada, the application of the NEM or, in the case of 153(2), before the engine leaves the possession or control of the company:

- 1. A machine of the same model is sold to the first retail purchaser or leaser in the United States. This must be substantiated with any of a, b, or c below:
  - a. copy of dated invoice to the first U.S. retail purchaser/leaser
  - b. copy of dated invoice to a U.S. party who sells or leases at the U.S. retail level (e.g. dealer)
  - c. copy of dated purchase order between a U.S. party and the first U.S. retail purchaser\leaser
- 2. A dated advertisement of the machine model targeted at U.S. consumers (this could include sales brochure, printed ad, magazine, price list, etc.) demonstrating that the product was actively marketed and available for delivery in the U.S.
- A dated U.S. manufacturer/importer/dealer list for the machine model demonstrating that the product was actively marketed and available for delivery in the U.S.

Before the import of a transition engine, before applying the NEM, or, in the case of 153(2), before the engine leaves the possession or control of the company, a company must ensure that it has the complete evidence of conformity available (including evidence that the engine was manufactured as per the U.S. flex engine program set out in CFR1039.625) and at least one of the above-listed concurrent sale documents that is appropriately dated. The evidence of conformity must be available **prior** to any of the above action taking place. Otherwise, a company must produce a Canada-unique submission of evidence of conformity as per G.5.3.

# G.5.2 What is the evidence of conformity required for a transition engine that will be installed in a transition machine that is sold concurrently, and when should it be submitted to the Minister?

If the transition engine is installed or will be installed in a transition machine that is sold concurrently in Canada and in the United States, it automatically falls under subparagraph 17(1)(a)(i) for loose transition engines and subparagraph17(1)(a)(ii) for transition engines installed in or on a machine, and the evidence of conformity information listed in that section is to be submitted only upon written request from Environment Canada. However, this information should be maintained and provided in accordance with section 18 of the Regulations.

The following list presents the required documentation to meet the requirements of subparagraph 17(1)(a)(i) for loose transition engines and subparagraph 17(1)(a)(ii) for transition engines installed in or on a machine:

- A statement, dated and signed by the company or its duly authorized representative, certifying that the engine conforms to section 625(e), subpart G, of CFR 1039;
- A document demonstrating that at least one machine of the same model as the one in which the engine is installed (or will be installed) is sold concurrently in Canada and in the United States;
- 3. A copy of the documentation submitted to the EPA under section 625, subpart G, of CFR 1039:
  - a. a copy of the machine manufacturer's calculation described in paragraph 1039.625(c) of the CFR;
  - b. a copy of all documentation provided to the United States EPA related to the flexibility provisions pursuant to CFR 1039.625(g);
  - c. a copy of the machine manufacturer's records referred to in paragraph 1039.625(h) of the CFR;
  - d. a copy of all documentation provided to the United States EPA related to the flexibility engine pursuant to CFR 1039.625(j);
  - e. a copy of the most recent United States EPA certificate of conformity;
  - f. a copy of all records submitted to the United States EPA in support of the application for the issuance of the most recent United States EPA certificate of conformity;
  - g. a copy of the engine information label indicating that the engine is part of the United States EPA flexibility program under CFR 1039.625;
  - h. a copy of the equipment label indicating that the machine has an engine that meets the United States EPA emission standards under CFR 1039.625;
  - i. the transition engine production period; and

- j. in the case of a loose engine, a statement that the engine will be installed on a machine that is sold in the United States.
- 4. A copy of the label referred to in subsection 13(3) or (4), if applicable.

Note that the proper importation declaration must be sent to the Minister prior to importation (see chapter H for more information), and the annual report must be sent no later than 90 days after the end of the calendar year during which the engine is imported or manufactured (see F.6.5 for more information). In addition, the transition engine must be labelled accordingly (see Appendix VI for more information).

# G.5.3 What is the evidence of conformity required for a transition engine in a transition machine that is not sold concurrently, and when should it be submitted to the Minister?

Since the Regulations are aligned with those of the United States, the general intent is to enable companies to establish compliance by submitting information similar to that which is provided to the EPA under their equipment manufacturer flexibility program and required under subparagraphs 17(1)(a)(i) and 17(1)(a)(ii) of the Regulations. A transition engine that will be installed in a transition machine that is not sold concurrently in Canada and the United States will be referred to as a Canada-unique transition engine.

The following paragraphs summarize the information that shall be obtained and produced "in a form and manner that is satisfactory to the Minister", for Canada-unique transition engines. It should be noted that this list may change from time to time to respond to evolving testing and information requirements, and to stay aligned with the requirements in the United States.

A separate submission is required for each engine family and transition machine. The evidence of conformity for a Canada-unique transition engine must be submitted **before** the importation of the subject engine, or in the case of 153(2) before the engine leaves the possession or control of the company, or before affixing the national emissions mark to the engine.

Appendix II illustrates the procedure to provide evidence of conformity "in a form and manner that is satisfactory to the Minister" for the Type 1 and Type 3 Canada-unique engines referred to in paragraph 17(1)(b) of the Regulations. The same procedure applies to Canada-unique transition engines; however, the information to be supplied is different as the evidence of conformity of a transition engine differs from that of a Type 1 or Type 3 Canada-unique engine.

A submission of evidence of conformity for Canada-unique transition engines must contain a statement of compliance letter signed by an authorized representative of the company. The letter must contain the same elements prescribed in section G.4, as well as identification that this is a Canada-unique transition engine submission and information

49

<sup>&</sup>lt;sup>9</sup> A company that submits its evidence of conformity following the importation of the subject engines in reliance on subsection 153(2) of the Act must submit to the Minister, **prior to importation**, an importation declaration as per section 21 of the Regulations.

identifying the machine manufacturer. <sup>10</sup> An example of a statement of compliance letter for Canada-unique transition engines is provided in Appendix IV.

The evidence of conformity for a Canada-unique transition engine consists of:

- 1. A statement, dated and signed by the company or its duly authorized representative, certifying that the engine conforms to the requirements under section 13;
- 2. Documentation demonstrating that the emission standards are met:
  - a copy of the most recent United States EPA certificate of conformity (if applicable);
  - a copy of all records submitted to the United States EPA in support of the application for the issuance of the most recent United States EPA certificate of conformity or the technical information that can be found in Appendix V;
  - c. a copy of the label referred to in subsection 13(3) or (4); and
  - d. a copy, in both official languages, of the emission-related maintenance instructions:
- 3. Information identifying the engine manufacturer:
  - a. the name and address of the engine manufacturer; and
  - b. the transition engine production period;
- 4. In the case of a loose engine, proof that the engine will be installed in a machine:
  - a. this could be a written contract between the importer and the machine manufacturer stating that the engine will be installed prior to the end of the time frame (see F.6.1 for table of time frames).<sup>11</sup>

For Canada-unique transition engines, the proper importation declaration and evidence of conformity must be sent to the Minister (see chapter H for more information). In addition, the annual report must be submitted no later than 90 days after the end of the calendar year during which the engine is imported or manufactured (see F.6.5 for more information). In addition, the transition engine must be labelled accordingly (see Appendix VI for more information).

<sup>11</sup> This element of evidence of conformity must be submitted to Environment Canada on becoming aware of the identification of the machine manufacturer and before the subject engine(s) leaves the possession or control of the company.

<sup>&</sup>lt;sup>10</sup> Please note that if the company is unaware of the machine manufacturer for the loose transition engine(s) at the time of its Canada-unique submission, the company must advise Environment Canada of this situation in the statement of compliance letter. The company must also provide a statement that it will identify the machine manufacturer and machine description for the submission before the engine(s) leaves its company's possession or control.

#### G.6 Administrative information

### G.6.1 Who is responsible for submitting the evidence of conformity?

Each company that either seeks to import or that is required to apply a national emissions mark is responsible for submitting the evidence of conformity as required under section 16 and paragraphs 17(1)(a) and (b).

When the same engines are being imported or offered for sale by different companies, the evidence of conformity has to be submitted by each company. All companies need to submit a compliance letter and the proper evidence of conformity. However, instead of the same information being submitted to Environment Canada twice, companies may collaborate where only one company (Company A) submits the complete information. In this case, all statement of compliance letters may reference the information submitted by Company A and indicate that a copy of the letter has been sent to Company A. Note that it is each company's responsibility to ensure compliance with all applicable sections of the Regulations.

To reduce the regulatory paperwork burden upon companies seeking to import Canada-unique engines, some engine manufacturers may voluntarily submit relevant technical documentation directly to Environment Canada. In this case, companies (importers) would then be required to submit a statement of compliance letter, for each submission, prior to the importation of the subject engine or, in the case of 153(2), before the engine leaves the possession or control of the company, <sup>12</sup> or before affixing the national emissions mark to the subject engine for each submission. It is the responsibility of companies (importers) to ascertain whether this technical documentation has been submitted for engines and/or machines they plan to import.

Regarding the evidence of conformity, section 18 of the Regulations states that:

- **18 (1)** A company shall maintain records, in writing or in a readily readable electronic or optical form, that contain the following information and retain the record for the following periods:
  - (a) a copy of the annual report referred to section 13.1 for a period of eight years following the end of the calendar year in question;
  - (b) the evidence of conformity referred to in section 16 or 17, as the case may be, for a period of eight years following
    - (i) if the engine is imported, the date of import, or
    - (ii) in any other case, the end of the calendar year that corresponds to the model year of the engine.
- (2) If the records referred to in subsection (1) are retained on a company's behalf, the company shall keep a record of the name and civic street address and, if different, the mailing address of the person who retains those records.

51

<sup>&</sup>lt;sup>12</sup> A company that submits its evidence of conformity following the importation of the subject engines in reliance on subsection 153(2) of the Act must submit to the Minister, **prior to importation**, an importation declaration as per section 21 of the Regulations.

- (3) If the Minister makes a written request to the company for a record referred to in subsection (1) or (2), the company must submit it to the Minister in either official language
  - (a) within 40 days after the day on which the request is made to the company; or
  - (b) within 60 days after the day on which the request is made to the company, if the record must be translated from a language other than French or English.

#### **G.6.2** Where should evidence of conformity be sent?

Submit the evidence of conformity to the Regulations, in either English or French, in paper copy or electronically, to one of the addresses that follow:

#### Electronic versions

The electronic documentation must be either in PDF, Microsoft Office format or FileMaker Pro format. It should be sent to <a href="mailto:Emission-Verification@ec.gc.ca">Emission-Verification@ec.gc.ca</a> with an appropriate case-specific subject line:

 For a submission pertaining to a Canada-unique compression-ignition engine under paragraph 17(1)(b) of the Regulations (Type 1 or 3 and Canada-unique Transition Engines):

"Canada-unique Submission – Name of Company – ECA # (once assigned)"

• For a submission pertaining to an engine that falls under section 16 or paragraph 17(1)(a) of the Regulations (when requested):

"Evidence of Conformity Submission - Name of Company - EC200X-XXX"

### Paper copies

Paper copies should be sent to:

Director
Transportation Division
Energy and Transportation Directorate
Environment Canada
351 St. Joseph Boulevard
Gatineau QC K1A 0H3

#### **G.6.3 Environment Canada acknowledgements**

Environment Canada will send acknowledgements to the manufacturer or the importer when evidence of conformity is received and considered to be "in a form and manner that is satisfactory to the Minister" based on the elements discussed in chapter G. The

acknowledgement that the "form and manner" are satisfactory to the Minister does not relieve the company of the obligation to comply with the Regulations and the Act.

In cases where a company is submitting applications for more than one engine family, it would be helpful if the company were to state the order in which it would prefer Environment Canada to process them.

When a company submits information for an engine family for which an identical submission was received and acknowledged by Environment Canada in a previous year, the company should notify Environment Canada that the submission is a direct carry-over to facilitate and accelerate the process.

Environment Canada will strive to respond to submissions according to the timelines shown in Table 8. When information is found to be missing and Environment Canada is waiting to receive additional information from a company, that wait time is added to the processing time listed below.

Table 8: Environment Canada response time for submissions of evidence of conformity to the *Off-Road Compression-Ignition Engine Emission Regulations* 

Type of engine		Environment Canada's turnaround time when COMPLETE information is provided	
Section 14(1) & 16	Specifically listed on an EPA certificate	<ul> <li>Information receipt: (if Environment Canada requested)</li> </ul>	
& J	(section 14(1) and 16)	15 calendar days after date of reception	
Paragraph 17(1)( <i>a</i> )	Transition engine in a transition machine sold concurrently in Canada and the United States	<ul> <li>Information receipt: (if Environment Canada requested)</li> <li>15 calendar days after date of reception</li> </ul>	
	Type 1 – Specifically listed on an EPA certificate and sold in Canada but not in the United States	<ul> <li>Form and manner are satisfactory to the Minister:</li> <li>15 calendar days after date of reception</li> </ul>	
Par	Type 3 –	Information receipt:	
agr	Not specifically listed on an EPA certificate, and sold in Canada but not in the United States	15 calendar days after date of reception	
Paragraph 17(1)( <i>b</i> )		<ul> <li>Form and manner are satisfactory to the Minister:</li> </ul>	
(1)		60 calendar days after date of reception	
(b)	Canada-unique transition engine in transition machine sold in Canada but not in the United States	Information receipt:	
		15 calendar days after date of reception	
		<ul> <li>Form and manner are satisfactory to the Minister:</li> </ul>	
		60 calendar days after date of reception	

#### G.6.4 Whom should I contact if I have questions or concerns?

For concerns relating to evidence of conformity, please contact the Vehicle and Engine Testing and Emissions Verification Section, Transportation Division of Environment Canada at:

Emission-Verification@ec.gc.ca

613-998-3579

For concerns relating to other administrative requirements, please contact the Regulatory Administration Section, Transportation Division of Environment Canada at:

VehicleandEngineInfo@ec.gc.ca

### G.7 Engine labelling requirements, declarations and suggested text

Engines imported into or manufactured in Canada require a label or, in some cases, an accompanying declaration. All labels must meet the characteristics of labels outlined in subsections 8(1) and 8 (2) of the Regulations. Finally, all engines must be labelled with a unique identification number as set out in section 8.1 of the Regulations (see G.9). Please note that engines are to be labelled differently depending on the circumstances surrounding the engine. The table in Appendix VI outlines the various labelling requirements.

### G.8 What are the labelling requirements?

The physical requirements are outlined in the regulations in subsections 8(1) and 8(2). The requirements state that any label required by the Regulations, other than a United States emission control label (which has similar requirements in the applicable CFR), must:

- be on, or immediately next to the United States emission control label (if applicable);
- in a visible location;
- be permanently applied;
- be resistant to or protected against any weather condition;
- bear characters (letters and numerals) that are readable and permanent and are indented or embossed in a colour that contrasts with the label's background.

# G.9 What is the unique identification number referred to in subsection 8.1(1) of the Regulations?

A unique identification number is defined as a number, consisting of Arabic numerals, Roman letters or both that the manufacturer assigns to the engine for identification purposes. It is the responsibility of the importer or the Canadian engine manufacturer or distributor to ensure that a unique identification number is affixed to every engine. The unique identification number shall be legible and may be engraved or stamped on the engine or may be on a label that meets the requirements set out in subsections 8(1) and 8(2) of the Regulations (see G.8).

## H. Importing an engine

### H.1 Introduction to importing an engine

Only engines that comply with the Regulations may be imported.

Under section 19 of the Regulations, any *company* importing an engine must submit a signed declaration to the Minister prior to importation. This declaration must contain the following:

- (a) the name and street address and, if different, the mailing address of the importer;
- (b) in respect of an engine that is not installed in or on a machine, the name of the manufacturer and the make, model and model year of the engine;
- (c) in respect of a machine, the name of the manufacturer and the make, model and type of the machine, as well as the name of the manufacturer and the make, model and model year of the engine that is installed in or on the machine;
- (d) the expected date of importation;
- (e) in the case of a company:
  - (i) the business number assigned to the company by the Minister of National Revenue; and
  - (ii) a statement that the engine bears the national emissions mark, or that the company is either able to produce the evidence of conformity referred to in section 16 or complies with section 17.

Under paragraph19(1)( $\underline{f}$ ) of the Regulations, if the importer is not a company, the declaration must include:

- (i) a statement from the person that the engine bears one of the following:
  - (A) the national emissions mark, or
  - (B) the emission control information label referred to in paragraph 16(*d*) showing that the engine conformed to the emission standards of the EPA in effect at the time of its manufacture, or
  - (C) a label showing that the engine conformed to the emission standards of the California Air Resources Board in effect at the time of its manufacture, or
  - (D) the label referred to in section 10.1 showing that the engine conformed to these Regulations at the time of its manufacture, or
- (ii) a statement from the manufacturer or its duly authorized representative that the engine conformed to the standards set out in these Regulations, or to the standards referred to in clause (i)(B) or (C), at the time of its manufacture.

The presence of one of the above-identified labels on the engine would indicate that the engine conforms to Canadian emission standards at the time of manufacture.

Declarations may be submitted, as indicated on the available importation form, to: <u>VehicleandEngineInfo@ec.gc.ca</u>

# H.2 Are there special provisions when importing five or less engines or machines?

If you are not a *company* (as defined in the Act, see D.2), and you import five or less engines or machines a year, you are not required to submit an import declaration. This provision is found in subsection 19(1.1). Engines you import must still meet other applicable requirements of the Regulations, including the emission standards.

# H.3 What is the business number required in subparagraph 19(1)(e)(i) of the Regulations?

The business number (BN) is assigned by the Canada Revenue Agency to uniquely identify business entities and must be supplied on customs documents. It is part of a numbering system that simplifies and streamlines the way businesses deal with the federal government.

More information on business numbers is available at

www.cra-arc.gc.ca/menu-e.html

# H.4 Is there a template for the importation declaration information specified in section 19 of the Regulations?

The Regulations set out the information that must be included in the declaration, but do not prescribe a set format or template. The information required in the declaration can be provided in any format as long as the prescribed information is included in a signed declaration that is submitted to the Minister prior to importation. However, to facilitate submitting the required information, a recommended template has been developed. The template may be obtained by contacting <a href="VehicleandEngineInfo@ec.gc.ca">VehicleandEngineInfo@ec.gc.ca</a>, or it may be accessed from:

#### www.ec.gc.ca/lcpe-cepa/eng/Regulations/DetailReg.cfm?intReg=88

If the information provided on the commercial invoice required at importation corresponds to the requirements of the Regulations, the *company* may add the statement of conformity required under paragraph 19(1)(e) of the Regulations onto their commercial invoice and submit this document to the Minister prior to importation.

If eligible, a *company* may provide a bulk declaration referred to in subsection 19(2) of the Regulations (see H.7). A person may submit the declaration as a separate document, as long as all the information requirements for the importation declaration are met.

# H.5 Is there any suggested wording for the statement in subparagraph 19(1)(e)(ii) of the Regulations?

Subparagraph 19(1)(e)(ii) of the Regulations requires that a *company* submit a statement indicating that "the engine bears the national emissions mark, or that the company is either able to produce the evidence of conformity referred to in section 16 or complies with section 17". The recommended template (see H.4) contains the applicable statements for various scenarios.

# H.6 Who is eligible to sign the import declaration as the "duly authorized representative" of the company?

"Duly authorized representative" means a person with written authority to act on behalf of the *company*. An authorized employee of the *company* or a separate commercial entity under contract with the *company*, such as a customs broker, can sign documents as the duly authorized representative of the *company*.

# H.7 I import more than 50 engines, what are my options for submitting importation declarations to Environment Canada?

If you are a company and you import more than 50 engines in a calendar year, you can request to submit your import declarations on a periodic basis, rather than for each importation event.

To do this, a *company* must send a notice of intent to the Director of the Transportation Division to inform Environment Canada of its intention to use bulk declaration reporting.

The notice must contain the following information:

- 1. Company name;
- 2. Business number assigned to the *company* by the Minister of National Revenue;
- Estimated annual quantity of engines and machines containing the engines to be imported into Canada. Of these, estimate the number which will be transition engines;
- 4. Estimated frequency of importations (e.g. 1 shipment/year, 1 shipment/month); and
- 5. Desired frequency of bulk declaration reports (the actual frequency will be set by Environment Canada).

Following acknowledgement of the notice of intent from Environment Canada, indicating that bulk declaration reporting is appropriate, the *company* would then be required to submit a bulk declaration. The declaration would provide a breakdown of engines and machines to be imported in the calendar year by applicable declaration statement. A suggested format for providing this breakdown is below:

Applicable statement	Estimated quantity
Engine bears the national emissions mark	
Evidence of conformity referred to in section 16 of the Regulations can be produced (e.g. concurrently sold EPA-certified engines)	
Evidence of conformity referred to in paragraph 17(1)(a) of the Regulations can be produced (e.g. concurrently sold transition engines)	
Evidence of conformity referred to in paragraph 17(1)(b) of the Regulations has been/will be produced (Canada-unique engines, non-EPA-certified engines, replacement engines, etc.)	
Incomplete engines; manufacture of engine will be completed in accordance with manufacturer's instructions (statement from manufacturer must be provided)	

This declaration would need to be submitted as soon as possible and prior to importation. (A due date may be specified in the acknowledgement.) Alternatively, this declaration could be submitted with the notice of intent. Please note that until the notice of intent is acknowledged by Environment Canada, the form and manner (e.g. desired reporting frequency) is not considered final.

In the case of bulk declarations on an annual basis, a declaration update confirming the preliminary information submitted as part of your initial declaration, such as the quantity imported and applicable declaration statement for each model, is to be submitted no later than 90 days after the end of the calendar year. If transition engines are imported during the calendar year, then the declaration update is to be submitted with the transition engine annual report referred to in F.6.5.

All information may be submitted to VehicleandEngineInfo@ec.gc.ca.

At the time of publication of this document, there is no specified printed form for the bulk declaration report. Please follow the link below to determine if any templates have been made available:

www.ec.gc.ca/lcpe-cepa/eng/Regulations/DetailReg.cfm?intReg=88

### H.8 Are there any reporting requirements for engines that I export?

No. Only engines that stay in Canada need to be reported on. Engines destined for export must be accompanied by the written statement required in paragraph 5(2)(f) (see C.3). In the event that the final destination of the engine or machine is not known, it must be imported to meet all the requirements of the Regulations as if it were to stay in Canada.

# H.9 I supply machines to countries that do not have the same emission standards. Can I import higher emitting engines to install in or on those machines if I am going to export them?

Yes, paragraph 5(2)(f) allows the import of engines that: "are being exported and are accompanied by a written statement establishing that they will not be sold for use or used in Canada". Note that while these engines are in Canada, they may not be sold for use or used, and they must have the written statement with them at all times.

# H.10 What is the procedure for importing loose transition engines, for which the type of machine these engines will be installed in is not known?

If the importer does not know whether the transition engine will be installed in a machine that is sold concurrently in Canada and the United States, then the engine must be brought into Canada as a Canada-unique transition engine, which requires a submission of evidence of conformity prior to importation (see G.5).

## H.11 What are the requirements for the import of an incomplete engine?

Importing "incomplete" engines (meaning engines that require either the addition of an emission control system (e.g. diesel particulate filter) or other equipment or parts to function and/or meet the requirements of the Regulations) is permitted as long as the two conditions below are met. First, a declaration must be submitted to Environment Canada. Second, the engine must be made to meet the requirements of the Regulations while in the company's possession and control. Specifically:

- 1. You must submit a declaration to Environment Canada before importation. The declaration must contain the information described in paragraphs 19(1)(a) to (d) and subparagraph 19(1)(e)(i) of the Regulations and section 21:
  - a. the name and street address and, if different, the mailing address of the importer;

- b. in respect of an engine that is not installed in or on a machine, the name of the manufacturer and the make, model and model year of the engine;
- in respect of a machine, the name of the manufacturer and the make, model and type of the machine, as well as the name of the manufacturer and the make, model and model year of the engine that is installed in or on the machine;
- the expected date of importation;
- e. a statement from the engine manufacturer that the engine will, when completed in accordance with the instructions provided by the manufacturer, conform to the prescribed standards; and
- f. a statement from the company that the engine will be completed in accordance with the engine manufacturer's instructions.
- 2. Ensure that the engine meets the requirements of the Regulations before it leaves your possession and control and is sold at the retail level. This can be done by:
  - a. Completing the engine yourself. This may make you an engine manufacturer and you may be required to apply the national emissions mark (see D.3).
  - b. Prior to selling the engine to a third party, ensuring that the third party will complete the engine as per the requirements of the Regulations. Note that this means you are responsible for how the engine is assembled and you must fulfill the requirements of an engine manufacturer. You may be required to apply the national emissions mark (see D.3).
  - c. You may delegate the final assembly of the engine to a person/company. You are still responsible for ensuring that the engine meets the requirements of the Regulations before it reaches the end user. Note that this means you are responsible for how the engine is assembled and you must fulfill the requirements of an engine manufacturer. You may be required to apply the national emissions mark (see D.3).

# H.12 How do I import engines into Canada for testing and evaluation purposes?

Under paragraph 155(1)(a) of the Act, engines that are used solely for purposes of exhibition, demonstration, evaluation or testing do not need to meet the requirements of the Regulations upon import into Canada.

However, as stated in subsection 20(1), prior to importation, the company must submit to the Minister the following information signed by a duly authorized company representative:

 In respect of an engine that is not installed in or on a machine, the name of the manufacturer and the make, model, unique identification number and model year of the engine;

- 2. In respect of a machine, the name of the manufacturer and the make, model and type of the machine, as well as the name of the manufacturer and the make, model, unique identification number and model year of the engine that is installed in or on the machine;
- The expected date of importation;
- 4. In the case of a company, the business number assigned to the company by the Minister of National Revenue.
- 5. A written statement that the engine will be used in Canada solely for purposes of exhibition, demonstration, evaluation or testing;
  - a. For greater certainty, you will need to provide evidence of the intended purpose. This could include: invitation to exhibit or demonstrate the engine, test plan or test protocol for the engine.
- 6. The date on which the engine will be removed from Canada, destroyed or will conform to the Regulations;
  - For greater certainty, you will need to provide evidence that the engine was removed, destroyed or made to conform to the Regulations. Evidence could be:
    - i. shipping statement that the engine was removed,
    - ii. photo evidence of the engine's destruction (note: the unique identification number will need to be visible),
    - iii. evidence that the engine was brought into compliance and meets the requirements in subparagraph 19(1)(e)(ii),
      - 1. This could include the EPA label and certificate:
  - b. Note that the engine may only stay in Canada for a period of no longer than one year. The company must apply in writing to the Minister prior to importation if it would like to obtain an acknowledgement from the Minister specifying a different period of time that the engine can remain in Canada.
- 7. The engine's unique identification number.

Companies are encouraged to contact <u>VehicleandEngineInfo@ec.gc.ca</u> if they are planning to import into Canada an engine solely for purposes of exhibition, demonstration, evaluation or testing.

# H.13 I am importing engines and machines for my own (or my company's) use, what do I need to do?

The engines or machines you import would still have to meet the emission standards and labelling requirements. If you import five or less engines per calendar year (either loose or in a machine), you do not have to submit an import declaration or transition engine annual reports.

# H.14 Are there any requirements in the Regulations that apply to "swing" engines?

Swing engines are typically used to replace engines placed out of service for maintenance. Swing engines are not defined in the Regulations. Requirements that would apply to "swing" engines would therefore depend on other conditions under which this engine is manufactured, imported or used. If you have any questions on swing engines and are not sure of the requirements, please contact VehicleandEngineInfo@ec.gc.ca.

# H.15 Are there other importation requirements not outlined in the Regulations that I should be aware of?

The Canada Border Service Agency (CBSA) has its own importation requirements that are not part of these Regulations, but that importers should be aware of. CBSA requires that the following documents be submitted when importing:

- 1. A Canada Customs Invoice which would include a detailed description, HS codes (see Appendix IX), vendor, and information on country of origin;
- 2. A completed B3 Canada Customs Coding Form.

Permits, licenses and certificates required by other government departments and agencies can also be found at:

www.cbsa-asfc.gc.ca/publications/pub/bsf5073-eng.html

A step-by-step guide for importing commercial goods is available from the CBSA website at:

www.cbsa-asfc.gc.ca/sme-pme/i-guide-eng.html

## I. Other obligations

### I.1 Obligation to provide maintenance instructions

Under section 15 of the Regulations, a *company* shall ensure that written instructions for emission-related maintenance are provided to the first retail purchaser of every engine or machine. The *company* must ensure that those written instructions are consistent with the maintenance instructions set out in the CFR. The instructions must be provided in English, French or both official languages, as requested by the purchaser.

# I.2 Obligation to provide instructions for the installation of an emission control system

Under section 15.1 of the Regulations, a *company* shall ensure that written instructions for installing the engine and emission control system accompany the engine. It is also acceptable to have these instructions available at a place or on a website if the address is provided. The instructions must be provided in English, French or both official languages, as requested by the engine installer and they must contain the following:

- 1. detailed installation procedures for the exhaust system, emission control system and any of their components; and
- 2. an indication of any limits on the types of use for the engine to ensure that the emission standards are conformed to.

#### I.3 Notice of defect

Given the complexity of the assembly process and the extensive supply chain for parts and components, there is always the possibility of a defect in the design, construction or functioning of the vehicle or engine that may affect its compliance with emission standards. The notice of defect provisions in section 157 of the Act and section 25 of the Regulations require companies to issue a notice of defect on becoming aware of a defect in the design, construction or functioning of the engine that affects or is likely to affect its compliance with a prescribed standard set out in the Regulations.

The expression "on becoming aware of a defect" in subsection 157(1) of the Act could be interpreted as meaning the moment at which a defect trend has been recognized by the *company*. A defect trend can be established from many sources including, but not limited to: audits, emissions test results; assembly line reports; reports from users; warranty claims; or other information received from government agencies. Existence of service bulletin(s) is suggestive that a trend has been established. There is no minimum threshold quantity of occurrences.

Subsection 25(1) of the Regulations describes the information that must be provided in the notice of defect. The notice must be given to the Minister, to each person who has

obtained an engine with the defect from the *company* and to each current owner of an engine with the defect.

Given the nature of the diesel engine and machine market, subsection 157(4) of the Act provides flexibility regarding issuing notice to current owners. The Minister may order that the notice be provided by publication in daily newspapers or in an alternative medium or, if the circumstances warrant, order that the current owners need not be notified. The notice of defect provided to the Minister requires a description of the means available to the *company* to contact the current owner of each affected engine.

Within 60 days after a notice of defect has been given, the company must submit to the Minister an initial report containing the information described in subsection 25(2) of the Regulations. The company must also submit, within 45 days after the end of each calendar quarter, quarterly reports to the Minister containing the information described in subsection 25(3) of the Regulations. Subsequent follow-up reports, unless otherwise directed by the Minister, are required for a period of two years after the day the Notice was provided.

A typical sequence of events may consist of:

- 1. Company submits notice of defect to the Minister;
- 2. Environment Canada will notify the company of the due date for the initial report;
- 3. The company prepares its owner notification letter, and any necessary technical documents or service bulletins for its service network;
- The company submits the initial report;
- 5. The company submits subsequent follow-up reports.

There is no prescribed form to submit the information to the Minister or to notify current owners of the defect.

Pursuant to subsection 157(6) of the Act, Environment Canada will forward all the information of each notice to the person responsible for vehicle or engine administration in each provincial and territorial government.

Under subsection 157(3) of the Act, a *company* is not required to cause notice of defect to be given if a relevant notice has already been given in Canada by another person (e.g., the engine manufacturer) for the same defect. The *company* is encouraged to obtain a copy of that notice of defect for its records.

All applicable documentation or enquiries should be addressed to:

Chief, Regulatory Administration Section Transportation Division Environment Canada 351 St. Joseph Boulevard Gatineau QC K1A 0H3

Reports may also be submitted electronically to <u>VehicleAndEngineInfo@ec.gc.ca</u> or via fax to 613-953-7815.

### I.4 Replacement engine

Under section 12 of the Regulations, a replacement engine is "an engine manufactured exclusively to replace an engine in a machine for which no current model year engine with the physical or performance characteristics necessary for the operation of the machine is manufactured by the manufacturer of the original engine". The physical or performance characteristics include characteristics such as engine dimensions, rated power, etc.

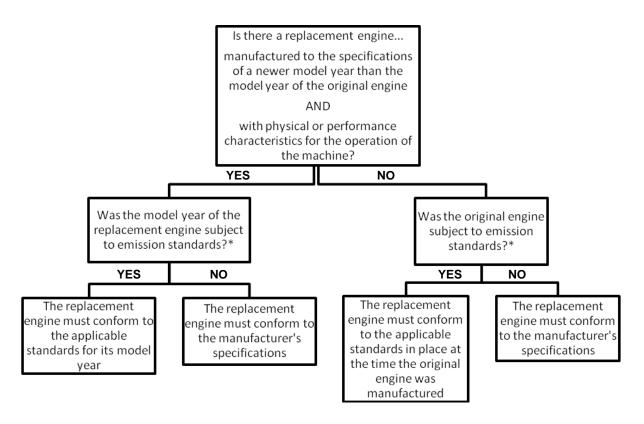
A replacement engine may conform to standards that are different from those prescribed in sections 9 to 11 of the Regulations. Figure 4 illustrates the standards and specifications for replacement engines.

The *company* must apply a label to a replacement engine. Under subsection 12(3) of the Regulations, this label must meet the requirements of labels under section 8 of the Regulations and provide the following information:

- 1. a. a statement, in both official languages, that the engine is a replacement engine, (see Appendix VI for labelling),
  - b. the model year of the engine,
  - c. the date of manufacture of the engine,
  - d. the gross power category of the engine,
  - e. an identification of the emission control system,
  - f. the name of the manufacturer, or
- 2. meet the requirements set out in paragraph 89.1003(b)(7) of the CFR or section 240(b)(6), subpart C, of CFR 1068 as the case may be.

It is Environment Canada's intent that the newest, cleanest engine available should be used as a replacement engine. If no engine is available from the original engine manufacturer with the physical and performance characteristics necessary to operate the machine but a cleaner engine is available from another engine manufacturer, then the company seeking the replacement engine should use the other engine manufacturer's engine. It is reasonable to expect that the company seeking the replacement engine would do its due diligence to find the cleanest engine available that could operate the machine.

Evidence of conformity must be submitted to <a href="mailto:Emission-Verification@ec.gc.ca">Emission-Verification@ec.gc.ca</a> before the importation of the subject engine, or in the case of 153(2) before the subject engine leaves the possession or control of the company, or before affixing the national emissions mark to the engine. The evidence of conformity must include a copy of the engine information label for the replacement engine as well as supporting documentation to demonstrate that the flow chart in Figure 4 has been followed.



<sup>\*</sup>Note there were no applicable emission standards for engines prior to the 2006 model year.

Figure 4: Standards applicable to a replacement engine

### I.5 Obligation to provide an engine

Under section 159 of the Act, upon request from the Minister, a *company* shall make available for testing any engine that was used in tests conducted in order to establish information submitted as evidence of conformity, or make available for testing an equivalent engine. The Minister will defray the transportation cost and pay the rental rate set in section 22 of the Regulations. The annual rental rate is 12% of the manufacturer's suggested retail price of the engine, prorated on a daily basis for each day the engine is made available.

## J. Compliance and enforcement

Manufacturers and importers are responsible for ensuring that their products comply with the Regulations and are required to submit evidence of conformity upon request.

Environment Canada administers a comprehensive program to verify compliance with federal emission standards. The program includes:

- authorizing and monitoring use of the national emissions mark;
- reviewing evidence of conformity;
- registering notices of defect affecting emission controls;
- inspection of test engines and emission-related components; and
- laboratory emission tests of sample engines that are representative of products offered for sale in Canada.

If Environment Canada determines that an engine does not comply with the Regulations, the manufacturer or importer is subject to the provisions of the Act. In this situation, the normal course of events is to perform sufficient engineering assessments to determine if a notice of defect should be issued in accordance with section 157 of the Act.

Environment Canada will apply the Compliance and Enforcement Policy of the Act to address alleged violations. The policy sets out the range of possible responses to alleged violations: warnings, environmental protection compliance orders, ticketing, ministerial orders, injunctions, prosecution and environmental protection alternative measures (which are an alternative to a court prosecution after the laying of charges for a violation of the Act). In addition, the policy explains when Environment Canada will resort to civil suits by the Crown for recovery. A copy of this policy is available at:

#### www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=5082BFBE-1

Alleged violations may be identified by Environment Canada's technical personnel, through information transmitted by the Canada Border Services Agency, through complaints received from the public or through inspections or investigations by CEPA enforcement officers. Inspections may also include verifications by enforcement officers at Canada's international borders.

When, following an inspection or an investigation, a CEPA enforcement officer discovers an alleged violation, the officer will choose the appropriate enforcement action based on the following criteria:

- Nature of the alleged violation: This includes consideration of the seriousness of the harm or potential harm to the environment, the intent of the alleged violator, whether it is a repeat violation, and whether an attempt has been made to conceal information or otherwise subvert the objectives and requirements of the Act.
- Effectiveness in achieving the desired result with the alleged violator: The desired result is compliance with the Act within the shortest possible time and with no

- further repetition of the violation. Factors to be considered include the violator's history of compliance, willingness to cooperate with enforcement officers, and evidence of corrective actions already taken.
- Consistency in enforcement: Enforcement officers will consider how similar situations have been handled in determining the measures to be taken to enforce the Act.

If you suspect a violation or a non-compliant incident under Environment Canada's jurisdiction, please contact the Enforcement Branch at:

environmental.enforcement@ec.gc.ca

## Appendix I – Example of an EPA certificate

Example of an EPA certificate as described in G.2.



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY OFFICE OF TRANSPORTATION AND AIR QUALITY WASHINGTON, DC 20460



#### CERTIFICATE OF CONFORMITY 2011 MODEL YEAR

Manufacturer: Engine Family: Certificate Number: Intended Service Class:			
Fuel Type: FELs: g/kW-hr N! Effective Date: Date Issued:	MHC + NOx: PM:		
	Compliance and Innovative Strategies Division Office of Transportation and Air Quality		

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60 and Part 1039, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following stationary and nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and 1039, and produced in the stated model year.

This certificate of conformity covers only those new stationary and nonroad compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and 1039 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60 and 1039.

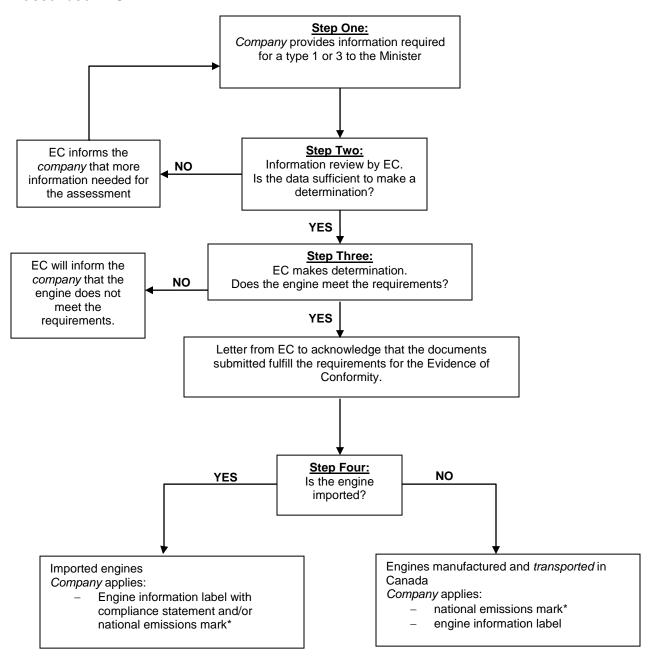
This certificate of conformity is conditional upon compliance of said manufacturer with the averaging, banking and trading provisions of 40 CFR Part 1039, Subpart H. Failure to comply with these provisions may render this certificate void ab initio.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR Part 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to a revocation or suspension of this certificate for reasons specified in 40 CFR Part 1039. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 1039.

This certificate does not cover stationary and nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

# Appendix II – Procedure for the Submission of Evidence of Conformity under paragraph 17(1)(b)

Procedure for the Submission of Evidence of Conformity under paragraph 17(1)(b) and as described in G.4.2.



<sup>\*</sup> Company must be authorized to apply the national emissions mark

## Appendix III – Example of a Statement of Compliance Letter

Example of a Statement of Compliance Letter as described in G.4.2.1 for submission of evidence of conformity to the Regulations for Canada-unique engines. This consists of an original signed letter from an authorized representative of the company.

[Canadian Company Identification]
[Canadian Business Number]

[Insert Date]

Director, Transportation Division
Energy and Transportation Directorate
Environment Canada
351 St. Joseph Boulevard
Gatineau QC K1A 0H3

Dear Director:

Re: Submission of Evidence of Conformity pursuant to Paragraph 17(1)(b) of the Off-Road Compression-Ignition Engine Emission Regulations for the Engine Family: [Engine Family of the engine(s)].

[Canadian Company Name] intends to [import OR manufacture] for the purpose of sale in Canada, [Model Year of engine] [Make of engine] engines mentioned below. The subject engine, a Tier [Tier of engine] engine, [is covered OR was covered OR is not covered] by a certificate of conformity issued by the United States Environmental Protection Agency and [will OR will not] be sold concurrently in the United States.

#### Description of the machine(s) and its/their engine(s)

Machine(s) (if applicable)			Engi	ne(s)	
Туре	Make	Model	Model year	Model	Gross power

[Canadian Company Name] attests that all its subject engines of this engine family comply with all applicable standards set out in the Off-Road Compression-Ignition Engine Emission Regulations

made under the Canadian Environmental Protection Act, 1999. [Canadian Company Name]'s evidence of such conformity, including a detailed description of the subject engines [is attached OR has already been submitted to Environment Canada by Engine Manufacturer Name]. [Canadian Company Name] also attests that the engines of this engine family are manufactured to the same specifications as those set out in the evidence of conformity and will bear an appropriate engine information label.

[Canadian Company Name]'s estimated projected Canadian sale will be of [Number of Engines] engines for this engine family and model year.

[Canadian Company Name] requests that Environment Canada acknowledge that the evidence of conformity has been obtained and produced in a form and manner satisfactory to the Minister.

As the signatory of this letter, I, [Name], certify that I am authorized to act on behalf of [Canadian Company Name] concerning the engines of this engine family. Should you have any questions in regard to the information provided, please contact [Name, Position and Company Name].

[Parts (as listed)] of the information supplied in this package is/are classified as confidential.

[Signature]

[Insert Name]

[Position]

Contact Information

[Encl.]

## Appendix IV – Example of a Statement of Compliance Letter for Canada-unique transition engines

Example of a Statement of Compliance Letter referenced in G.5.3 for submission of evidence of conformity to the Regulations for Canada-unique *transition* engines. This consists of an original signed letter from an authorized representative of the company.

[Canadian Company Identification]
[Canadian Business Number]

[Insert Date]

Director, Transportation Division Energy and Transportation Directorate Environment Canada 351 St. Joseph Boulevard Gatineau QC K1A 0H3

Dear Director:

Re: Submission of Evidence of Conformity pursuant to Paragraph 17(1)(*b*) of the *Off-Road Compression-Ignition Engine Emission Regulations* for the <u>Engine Family: [Engine Family of the engine(s)].</u>

[Canadian Company Name] intends to [import OR manufacture] for the purpose of sale in Canada, [Model Year of engine] [Make of engine] transition engines mentioned below, which [are OR will] be installed in the machines identified below. The machine model(s) [will OR will not] be sold concurrently in the United States. The subject transition engine, a Tier [Tier of engine] engine, [was OR was not] covered by a certificate of conformity issued by the U.S. Environmental Protection Agency. The subject transition engines [are OR will be] installed in transition machines by the following machine manufacturer:

[Machine Manufacturer Name]

[Machine Manufacturer Address]

#### Description of the machine(s) and its/their engine(s)

Machine(s)			Engi	ne(s)	
Type Make Model Model year				Model	Gross power

[Canadian Company Name] attests that all its subject transition engines of this engine family comply with all applicable standards set out in the *Off-Road Compression-Ignition Engine Emission Regulations* made under the *Canadian Environmental Protection Act, 1999.* [Canadian Company Name]'s evidence of such conformity, including a detailed description of the subject transition engines [is attached <u>OR</u> has already been submitted to Environment Canada by Engine Manufacturer Name]. [Canadian Company Name] also attests that the engines of this engine family are manufactured to the same specifications as those set out in the evidence of conformity and will bear an appropriate engine information label.

[Canadian Company Name]'s estimated projected Canadian sale will be of [Number of Transition Engines] transition engines for this engine family and model year.

[Canadian Company Name] requests that Environment Canada acknowledge that the evidence of conformity has been obtained and produced in a form and manner satisfactory to the Minister.

As the signatory of this letter, I, [Name], certify that I am authorized to act on behalf of [Canadian Company Name] concerning the engines of this engine family. Should you have any questions in regard to the information provided, please contact [Name, Position and Company Name].

[Parts (as listed)] of the information supplied in this package is/are classified as confidential.

[Signature]

Insert Name

[Position]

[Contact Information]

[Encl.]

### **Appendix V – Technical Information Requirements**

Technical Information Requirements referred in G.4.2.2. The technical information required is equivalent to that specified in paragraph 16(c) of the Regulations. It is based on information that is equivalent to the records submitted to the EPA in support of the application for the issuance of the EPA certificate. Note the definitions provided following the table.

Heading	Requirements	Comments
Section 1 – Correspondence and Communications	Company name	Company that is submitting the evidence of conformity.
	Names, phone numbers, fax numbers, email addresses of all persons authorized to be in contact with staff from the Transportation Division of Environment Canada	Identify person(s) both within and outside the company that Environment Canada may contact with regard to the application. Please identify areas of responsibility for each person listed, if applicable.
	Carry-over	When a company submits information for an engine family for which an identical application was received and acknowledged by Environment Canada the previous year, the company should notify Environment Canada that the application is a direct carryover to facilitate and accelerate the process.
	Engine Family	Alpha numeric code to identify the Engine Family for the application being submitted.  Engine family code should be following the code system shown in Appendix VII.
	Engine Model Year	Identify the engine model year. See C.5.
Section 2 – Engine	Estimated Production Period	Provide the estimated production period characterizing the engine model year.
Family Information	Machine Types	If applicable, provide a tabular list of all types of machines (e.g. Crane, Loaders, Tractor, Dozer, Pump, Compressor, Generator Set), model year(s), make(s) and model(s) equipped with an engine from the engine family covered by the application.
	Engine Tier Level	Identify the Tier level of the engine family covered by the application (e.g. Tier 2, Tier 3, Interim Tier 4, Tier 4).

Heading	Requirements	Comments
	Applicable Useful Life	Identify the applicable useful life of the engine family (e.g. 5 years / 3000 hours, 10 years / 8000 hours).
		See definition below.
	Combustion Cycle	e.g. Diesel Cycle – 4 stroke, Diesel Cycle – 2 stroke
	Engine Configuration	e.g. V8, L6
	Fuel Type	e.g. Low Sulfur Diesel, Ultra Low Sulfur Diesel
	Fuel System Type	e.g. Electronic Direct Injection, Mechanical Direct Injection
	Method of Aspiration	e.g. Turbo Air to Air (TAA), natural aspiration, Turbo Air to Water (TAW), Single Stage Turbo
	Turbocharger Type	If applicable (e.g. Variable Geometry Turbocharger (VGT), Fixed Waste Gate)
	Aftercooling	If applicable (e.g. Air to Air, Air to Water)
	Emission Control System	List all emission control systems and after treatment devices (e.g. Electronic control, Engine Modification, Smoke Puff Limiter, Exhaust Gas Recirculation (EGR), Passive Diesel Particulate Filter (DPF), Active DPF, NO <sub>x</sub> absorber, Selective Catalytic Reduction (SCR), Diesel Oxidation Catalyst (DOC), Catalyst, Lean NO <sub>x</sub> ).
	Emission Control System Statement 1	Provide a written statement to confirm whether the Emission Control System, during its operation or function, releases a substance that causes air pollution and that would not have been released if the system were not installed.
	Emission Control System Statement 2	Provide a written statement to confirm whether the Emission Control System, during its operation, function or malfunction, makes the engine or the machine in which the engine is installed unsafe, or endangers persons or property near the engine or machine.

Heading	Requirements	Comments
	Auxiliary emission control devices (AECD) including the sensed and controlled parameters	If applicable, list all auxiliary emission control devices (AECD) installed on any applicable engines and include the sensed and controlled parameters (e.g. Turbocharger protection, EGR cooler condensation, Intake condensation protection, Engine over temperature, Engine warm-up and white smoke, Transient Smoke Protection, Fan reversal, Electronic controlled EGR device, Cold starting device, Intake air heater control, Acceleration of engine warming, Speed timer device, Load timer device, Acceleration fuel control device, Mechanical EGR controller).  A detailed justification of each AECD which results in a reduction in effectiveness of the emission control system, and rationale why the AECD is not a defeat device as defined under subsection 9(2) of the Regulations shall be provided.  This information should be supplied in a form that can be easily understood by an engineer skilled in engine emissions control (e.g. not in computer language). Preferred format is a table listing AECDs (down) and sensed and controlled parameters (across).
	Adjustable Parameters	If applicable, list all adjustable parameters from the engine, as well as all adjustable range and tamper resistance method for each adjustable parameter (e.g. Fuel limiter, Maximum engine speed, Low speed limiter, Rated fuel rate, Injector lash, Idle speed, Electronic control).
	Defeat Device	Provide a written statement to confirm whether all engines that are part of the engine family covered by the application are equipped with a Defeat Device.
	Emission-related Maintenance Instructions	Provide a copy, in both official languages, of the emission-related maintenance instructions, which would be available to the first retail purchaser.
		See I.1 for additional information.

Heading	Requirements	Comments
Section 3 – Laboratory Accreditation	Accreditations of the laboratory where the testing was performed. The laboratory where the tests are carried out would have to be capable of certifying to Canadian or United States standards.	This is normally demonstrated by the lab having previously completed testing to support the issuance of a United States EPA certificate. A list of labs that may be used to conduct testing may be found at:  www.epa.gov/otaq/consumer/420b11026.pdf
	Names, phone numbers, fax numbers, email addresses of contact person at laboratory	Provide the contact information.
	Engine Rated Power and Speed	Provide the rated power and speed of the test engine.
	Engine code, model and serial number for the test engine	Provide the following information pertaining to the test engine: Engine code (if applicable), model and serial number.
	Displacement of test engine	Provide the engine size in cc or L.
	Applicable Test Procedure	Indicate the test procedure that was used to demonstrate compliance with the emission standards (e.g. Nonroad, 8 Mode and Smoke)
		Provide a comprehensive list of all test results:
Section 4 – Test Results		<ul> <li>Exhaust emission test results for NMHC+NO<sub>x</sub> (or NMHC and NO<sub>x</sub> separately, if applicable), CO and PM.</li> </ul>
	Official test results on the test engine that represents the worst case scenario for the engine family covered by the	- Smoke emission (exhaust opacity) test results (if applicable): smoke % opacity during the acceleration mode, smoke % opacity during the lugging mode, and smoke % opacity during the peaks in either the acceleration or lugging modes.
	application	Crankcase emissions: for naturally aspirated engines that do not have crankcase emissions permanently routed into the exhaust, provide a written statement to confirm whether the engine discharges crankcase emissions into ambient atmosphere.
		See section 10 of the Regulations and Chapter F for additional information.

Heading	Requirements	Comments
		The following deterioration factors (DFs) shall be calculated and provided: NMHC+NO <sub>x</sub> , CO, PM, smoke % opacity in acceleration mode, smoke % opacity in lugging mode and smoke peak % opacity. Deterioration factors for the smoke % opacity are only required if the engine is subject to the smoke standard.
	Deterioration factors (DFs)	Engines from the engine family must comply with the applicable emissions standards throughout their useful lives. By definition, the useful life for engines ranges from 3000 to 8000 hours depending on the power category. Deterioration factors are applied to account for any increase in emissions over the useful life of the engine. DFs are usually developed using an engine which runs strictly for aging purposes, and are applied to the emission results from the test engine. The test engine must comply with emissions standards after the DFs are applied. See following link for additional information:  http://iaspub.epa.gov/otaqpub/display file.jsp  ?docid=14185&flag=1
	Certification Levels	Provide the certification levels comprising of the official test results and DFs described above.
	Certification Fuel	Indicate the type of fuel that was used to complete the emission tests (e.g. Low Sulfur Diesel, Ultra Low Sulfur Diesel)
	Adjustment Factors for Emission Control Systems	If applicable, provide adjustment factors for DPF, NO <sub>x</sub> Adsorber, etc.
	Special Instructions	Identify whether any special instructions apply to test the engine.
Section 5 – Engine Model and Part Number Summary	Provide information on all models which are included in this application.	Provide a tabular list of all engine models, engine codes, engine displacements, rated power, rated speed, max torque and max torque speed covered under this engine family application.
	Provide information on all emission related parts which are applicable to engines covered in this application.	Provide a tabular list of part numbers for the following parts, if applicable (Injection Pump, Injector, Turbo Charge, Electronic Control Module, Emission Control Systems [Specify], Smoke Puff Limiter, Sensor Assemblies [Including Descriptions], and Other [Specify]).

Heading	Requirements	Comments
Section 6 – Projected Sales	Projected Canadian sales for this engine family	This must be included in the statement of compliance letter.
Section 7 – Request for Certification	Contains a copy of the written request to acknowledge that the evidence of conformity has been obtained and produced in a form and manner satisfactory to the Minister signed by an authorized representative of the company	This must be included in the statement of compliance letter.
Section 8 – Other Information	Any additional information relevant to this application	If applicable
Section 9 – Confidential Information	Contains all previously listed confidential information	All confidential information contained in this section must be referenced by title in the appropriate section with a note to see section 9.
Section 10 – California ARB Information	Contains the summary sheet listing all engine and test parameters	If applicable
Section 11 – Engine Information Label	A copy or reproduction of the engine information label	Provide a copy or reproduction of the engine information label.  For label requirements, refer to G.7 and Appendix VII.

#### **Definitions:**

**Useful Life:** Useful life is defined in subsection 1(1) as "the period of time or of use in respect of which an emission standard applies to an engine, as set out in section 104(a), subpart B, of CFR 89 or in section 101(g), subpart B, of CFR 1039." Table 4 provides a summary of the useful life for the different engine categories.

#### **Useful Life for Engines Categories**

Scenario	Useful Life
All engines rated under 19 kW	3000 hours or 5 years (whichever occurs first)
Constant speed engines rated under 37 kW with rated speeds greater than or equal to 3000 rpm	3000 hours or 5 years (whichever occurs first)
All other engines rated at or above 19 kW and under 37 kW	5000 hours or 7 years (whichever occurs first)
All other engines rated at or above 37 kW	8000 hours or 10 years (whichever occurs first)

Adjustable parameters: An adjustable parameter is something that a person could modify that would change the emissions coming from the engine, or the performance of the engine. Engines with "adjustable parameters" must be able to meet the emission standards regardless of settings on the "adjustable parameter". For example, if there is an adjustment screw on an engine, this engine must meet the exhaust emission standards regardless of the setting of the screw (i.e. whether it is fully, partially or not tightened).

**Defeat Device:** A defeat device means any device, system or element of design which limits or reduces the effectiveness of an emission control system. The Regulations incorporate by reference the CFR definition of defeat device.

### Appendix VI - Engine labelling

The following table details the engine labelling requirements as described in G.7. Engines imported into or manufactured in Canada require a label or, in some cases, an accompanying declaration. All labels must meet the characteristics of labels outlined in subsections 8(1) and 8(2) of the Regulations (see G.8). Finally, all engines must be labelled with a unique identification number as set out in section 8.1 of the Regulations (see G.9). Please note that engines are to be labelled differently depending on the circumstances surrounding the engine.

If the engine is:	U.S. label	Canadian label and suggested text	Section in Regulations
Covered by a valid EPA certificate and is sold concurrently (subsection 14(1) of the Regulations)	The applicable United States emission control information label in section 110, subpart B, of CFR 89 or section 135, subpart B, of CFR 1039 or section 645(d)(1) of CFR 1039 for the applicable model year of the engine.	n/a	Paragraph 16( <i>d</i> )

If the engine is:	U.S. label	Canadian label and suggested text	Section in Regulations
Not covered by a valid EPA certificate and not sold concurrently  (Referred to as a Type 3 Canada-unique engine)	n/a	Mandatory text:  "THIS ENGINE CONFORMS TO ALL APPLICABLE STANDARDS FOR THE [insert model year] MODEL YEAR PRESCRIBED BY THE CANADIAN OFF-ROAD COMPRESSION-IGNITION ENGINE EMISSION REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE."  "CE MOTEUR EST CONFORME À TOUTES LES NORMES QUI SONT APPLICABLES À L'ANNÉE DE MODÈLE [inscrire l'année de modèle] EN VERTU DU RÈGLEMENT SUR LES ÉMISSIONS DES MOTEURS HORS ROUTE À ALLUMAGE PAR COMPRESSION CANADIEN EN VIGUEUR À LA DATE DE SA CONSTRUCTION."  And must also include:  (a) the model year of the engine; (b) the date of manufacture of the engine; (c) the gross power or gross power category of the engine; (d) an identification of the emission control system; (e) the name of the engine manufacturer; (f) the engine family; and (g) the engine displacement.	Paragraph 17(1)( <i>b</i> ) & Section 10.1
Covered by a valid EPA certificate but not sold concurrently  (Referred to as a Type 1 Canada-unique engine)	The applicable United States emission control information label in section 110, subpart B, of CFR 89 or section 135, subpart B, of CFR 1039 or section 645(d)(1) of CFR 1039 for the applicable model year of the engine.	n/a	Paragraph 17(1)( <i>b</i> )

If the engine is:	U.S. label	Canadian label and suggested text	Section in Regulations
Manufactured (see D.3) in Canada and will be transported or sold across provincial boundaries, then the engine may require the national emissions mark as discussed in Chapter E of this document.	NATIONAL EMISSION MARK and also include the applicable United States emission control information label in section 110, subpart B, of CFR 89 or section 135, subpart B, of CFR 1039 or section 645(d)(1) of CFR 1039 for the applicable model year of the engine.	Mandatory:  NATIONAL EMISSION MARK  And must also include:  (a) the model year of the engine; (b) the date of manufacture of the engine; (c) the gross power or gross power category of the engine; (d) an identification of the emission control system; (e) the name of the engine manufacturer; (f) the engine family; and (g) the engine displacement.	Subsection 5(3)
A replacement engine	The applicable United States emission control information label referred to in section 1003(b)(7), subpart K, of CFR 89 or section 240(b)(6), subpart C, of CFR 1068, as the case may be.	Suggested text:  "THIS ENGINE IS A REPLACEMENT ENGINE. INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF THE LAW."  "CE MOTEUR EST UN MOTEUR DE REMPLACEMENT. L'INSTALLATION OU I'UTILISATION DE CE MOTEUR DANS TOUTE AUTRE APPLICATION PEUT CONSTITUER UNE VIOLATION DE LA LOI.»  And must also include:  (a) the model year of the engine or the emission standard according to which the engine was manufactured; (b) the date of manufacture of the engine; (c) the gross power or gross power category of the engine; (d) an identification of the emission control system; and (e) the name of the engine manufacturer.	Section 12

If the engine is:	U.S. label	Canadian label and suggested text	Section in Regulations
A transition engine  (Note: Either engine labels are acceptable for transition machines that are and are not sold concurrently)	The applicable United States emission control information label referred to in section 625(j)(1), subpart G, of CFR 1039 or in section 102(i)(9), subpart G, of CFR 89 as the case may be.	Mandatory text:  "THIS ENGINE CONFORMS TO ALL APPLICABLE STANDARDS FOR THE [insert model year] MODEL YEAR PRESCRIBED BY THE CANADIAN OFF-ROAD COMPRESSION-IGNITION ENGINE EMISSION REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE."  «CE MOTEUR EST CONFORME À TOUTES LES NORMES QUI SONT APPLICABLES À L'ANNÉE DE MODÈLE [inscrire l'année de modèle] EN VERTU DU RÈGLEMENT SUR LES ÉMISSIONS DES MOTEURS HORS ROUTE À ALLUMAGE PAR COMPRESSION CANADIEN EN VIGUEUR À LA DATE DE SA CONSTRUCTION.»  And must also include:  (a) the model year of the engine; (b) the date of manufacture of the engine; (c) the gross power or gross power category of the engine; (d) the name of the engine manufacturer; (e) the engine displacement; and (g) a statement, in both official languages, that the engine is a transition engine.  e.g. "THIS IS A TRANSITION ENGINE."  «CECI EST UN MOTEUR DE TRANSITION.»	Section 13

If the engine is:	U.S. label	Canadian label and suggested text	Section in Regulations
A stationary engine as per (5(2)( <i>h</i> ))	The United States emission control information label referred to in section 20 of CFR 1039.	Suggested text:  "THIS ENGINE IS A "STATIONARY ENGINE." INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF THE LAW."  «CE MOTEUR EST UN « MOTEUR FIXE ».  L'INSTALLATION OU L'UTILISATION DE CE MOTEUR DANS TOUTE AUTRE APPLICATION PEUT CONSTITUER UNE VIOLATION DE LA LOI.»	Paragraph 5(2)( <i>h</i> )
Exclusively to provide power to small communities as per (5(2)(1))	n/a	Suggested text:  "THIS ENGINE IS DESIGNED EXCLUSIVELY TO PROVIDE POWER TO SMALL COMMUNITIES. INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF THE LAW."  "CE MOTEUR EST CONÇU EXCLUSIVEMENT POUR FOURNIR DE L'ÉLECTRICITÉ À DE PETITES COLLECTIVITÉS ÉLOIGNÉES. L'INSTALLATION OU I'UTILISATION DE CE MOTEUR DANS TOUTE AUTRE APPLICATION PEUT CONSTITUER UNE VIOLATION DE LA LOI."	Paragraph 5(2)( <i>i</i> )
A competition engine	n/a	Suggested text:  "THIS ENGINE IS A "COMPETITION ENGINE." INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF THE LAW."  «CE MOTEUR EST UN « MOTEUR DE COMPÉTITION ». L'INSTALLATION OU L'UTILISATION DE CE MOTEUR DANS TOUTE AUTRE APPLICATION PEUT CONSTITUER UNE VIOLATION DE LA LOI.»	Paragraph 5(2)( <i>a</i> )

If the engine is:	U.S. label	Canadian label and suggested text	Section in Regulations
Engines designed exclusively to be used in military machines designed exclusively for use in combat or combat support	The United States emission control information label referred to in section 225(d), subpart C, of CFR 1068.	Suggested text:  "THIS ENGINE IS DESIGNED TO BE USED EXCLUSIVELY IN MILITARY MACHINES DESIGNED EXCLUSIVELY FOR USE IN COMBAT OR COMBAT SUPPORT. INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF THE LAW."  «CE MOTEUR EST CONÇU POUR ETRE UTILISES EXCLUSIVEMENT DANS DES MACHINES MILITAIRES CONÇUES EXCLUSIVEMENT POUR UTILISER AU COMBAT OU SOUTIEN AU COMBAT. L'INSTALLATION OU L'UTILISATION DE CE MOTEUR DANS TOUTE AUTRE APPLICATION PEUT CONSTITUER UNE VIOLATION DE LA LOI. »	Paragraph 5(2)( <i>e</i> )

If the engine is:	U.S. label	Canadian label and suggested text	Section in Regulations
Transportation Refrigeration Unit engine	The United States emission control information label referred to in 645(d)(1), subpart G, CFR 1039.	"THIS ENGINE IS DESIGNED TO BE USED EXCLUSIVELY IN A TRANSPORTATION REFRIGERATION UNIT. INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF THE LAW."  "CE MOTEUR EST CONÇU POUR ÊTRE UTILISÉ EXCLUSIVEMENT DANS DES DISPOSITIFS FRIGORIFIQUE DE TRANSPORT. L'INSTALLATION OU L'UTILISATION DE CE MOTEUR DANS TOUTE AUTRE APPLICATION PEUT CONSTITUER UNE VIOLATION DE LA LOI.»  And must also include:  (a) the model year of the engine;  (b) the date of manufacture of the engine;  (c) the gross power or gross power category of the engine;  (d) an identification of the emission control system; and  (e) the name of the engine manufacturer.	Subsection 11.1(1)

## Appendix VII – Engine information label for engines, other than transition engines, that are not EPA certified

As described in G.4.2.3, below is a sample engine information label, meeting the requirements provided in section 10.1 of the Regulations, for engines, other than transition engines, that are not EPA certified. For a type 3 submission, a copy or reproduction of the engine information label must be included in the submission of evidence of conformity.

#### **Emission Control Information**

Company XY, inc

"THIS ENGINE CONFORMS TO ALL APPLICABLE STANDARDS FOR THE [insert model year] MODEL YEAR PRESCRIBED BY THE CANADIAN OFF-ROAD COMPRESSION-IGNITION ENGINE EMISSION REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE / CE MOTEUR EST CONFORME À TOUTES LES NORMES QUI SONT APPLICABLES À L'ANNÉE DE MODÈLE [inscrire l'année de modèle] EN VERTU DU RÈGLEMENT SUR LES ÉMISSIONS DES MOTEURS HORS ROUTE À ALLUMAGE PAR COMPRESSION CANADIEN EN VIGUEUR À LA DATE DE SA CONSTRUCTION";

Model Year: ####

Date of Manufacture: Month/Year

Power Category : ### - ### kW

Emission Control System:  $\alpha\alpha\alpha$ 

Engine Family:  $\Omega\Omega\Omega\Omega\alpha$ #### $\Omega\Omega\Omega$ 

Engine Displacement: ##.# L

Advertised Power: ### kW at #### rpm

Engine Tune-up Specifications and Adjustments: [...]

This engine is certified to operate on ultra low-sulfur diesel fuel.

#### Where

 $\alpha$ : Are alpha fields

#: Are numeric fields

 $\Omega$ : Are alphanumeric fields

#### **Engine Family:**

#### Position 1: Model Year Codes

8- 2008	D- 2013	J - 2018	P- 2023
9- 2009	E- 2014	K- 2019	R- 2024
A- 2010	F- 2015	L- 2020	S- 2025
B- 2011	G- 2016	M- 2021	T- 2026
C- 2012	H- 2017	N- 2022	V- 2027

#### Positions 2-4: Code Assigned by EPA for Each Manufacturer

Insert the 3-character alphanumeric EPA manufacturer code assigned to your company. If your company does not have an assigned EPA manufacturer code, please contact Environment Canada at the contact information found within this document.

Position 5: Industry Sector Codes (formerly called "Family Type Code")

L – Off-Road CI Engine

#### Positions 6-9: Engine Displacement

Insert the applicable engine displacement. Engine displacement units are litres (e.g. 05.7 where the decimal point counts as a digit and the leading zero is a space) or cubic inches (e.g. 0350, 0097). For large displacement engines, the displacement may be entered as XX.X (e.g. 12.1). Small engines may be entered as a .XXX (e.g. .072, 0.07, 00.7). In all cases the displacement will be read in litres if a decimal point is entered and in cubic inches if there is no decimal point.

#### Positions 10-12: Sequence Characters

Enter any combination of valid characters to provide a unique identification for the family name. At a minimum, the sequence characters, in combination with the other characters in the engine family name, must provide a unique identifier for each engine family name for a manufacturer for each model year. Further, it is recommended that numbers and letters be selected that minimize possible confusion. The sequence characters themselves could be used to represent other information such as the applicable EPA or California emission standards; however, Environment Canada will treat these as simple sequence characters with no additional meaning.

## Appendix VIII – Quick guide to importation

Quick guide to importation as described in section H. This guide is intended to provide guidance for importation based on the circumstances surrounding the engine.

I want to import	Step 1: Determine what "type" of engine	Step 2: Gather evidence of conformity	Step 3: Submit import declaration and other required documentation	Step 4: Ensure engines are labelled or accompanied by necessary documentation	Step 5: Import engines	Step 6: Maintain records	Step 7: Submit annual reports (if required)
Transition engines	Are the engines "concurrent sale" or "Canada-unique" (see G.5)?	For concurrent sale, you will need to have the information available (see G.5)  For Canadaunique, you will need to submit the information prior to importation (see G.5)	See H.1 on import declarations. Note that there are options depending on your import volume (5 or less, more than 50)	See Appendix VI on engine labelling See I.1 on maintenance instructions	Import engines	Maintain records of your importation and for engines not yet installed in or on a machine, ensure you have the information required for the annual report.  Keep records of all documentation submitted to Environment Canada. See G.6.1 on maintaining records.	Submit annual report (see F.6.5) If applicable, submit bulk declaration forms (see H.7)

I want to import	Step 1: Determine what "type" of engine	Step 2: Gather evidence of conformity	Step 3: Submit import declaration and other required documentation	Step 4: Ensure engines are labelled or accompanied by necessary documentation	Step 5: Import engines	Step 6: Maintain records	Step 7: Submit annual reports (if required)
Tier 4 compliant engines	Are the engines "concurrent sale" or "Canada-unique" (see G.3)?	For concurrent sale, you will need to have the information available (see G.3.1)  For Canadaunique, you will need to submit the information prior to importation (see G.3.2)	See H.1 on import declarations. Note that there are options depending on your import volume.	See Appendix VI on engine labelling See I.1 on maintenance instructions	Import engines	Maintain records of your importation  Keep records of all documentation submitted to Environment  Canada. See G.6.1 on maintaining records.	If applicable, submit bulk declaration forms (see H.7)
Replacement engines	Ensure the engine is truly a replacement engine (see I.4)	See 1.4	See H.1 on import declarations. Note that there are options depending on your import volume.	See Appendix VI on engine labelling See I.1 on maintenance instructions	Import engines	Maintain records of your importation  Keep records of all documentation submitted to Environment  Canada. See G.6.1 on maintaining records.	If applicable, submit bulk declaration forms (see H.7)

I want to import	Step 1: Determine what "type" of engine	Step 2: Gather evidence of conformity	Step 3: Submit import declaration and other required documentation	Step 4: Ensure engines are labelled or accompanied by necessary documentation	Step 5: Import engines	Step 6: Maintain records	Step 7: Submit annual reports (if required)
Engines for export	n/a	n/a	n/a	Ensure your engine is accompanied by the necessary statement (see H.8)	Import engines	Maintain records of your importation  Keep records of all documentation submitted to Environment Canada. See G.6.1 on maintaining records.	n/a
Incomplete engines	Will the engine be completed as per the EPA certificate for the engine (see H.11)?	No, a NEM will be required. See E. Yes, ensure that your engine will remain in your possession and control. See H.11.	See H.1 on import declarations. Note that there are options depending on your import volume.	See Appendix VI on engine labelling See I.1 on maintenance instructions	Import engines	Maintain records of your importation and ensure that the engine remains in your possession and control until assembly is complete. See H.11.  Keep records of all documentation submitted to Environment Canada. See G.6.1 on maintaining records.	Submit bulk declaration forms

I want to import	Step 1: Determine what "type" of engine	Step 2: Gather evidence of conformity	Step 3: Submit import declaration and other required documentation	Step 4: Ensure engines are labelled or accompanied by necessary documentation	Step 5: Import engines	Step 6: Maintain records	Step 7: Submit annual reports (if required)
Engines excluded under subsection 5(2) or under the Act	n/a	n/a	Case specific	See Appendix VI on engine labelling	Import engines	Keep records of all documentation submitted to Environment Canada. See G.6.1 on maintaining records.	n/a
A mix of engines	Determine the engine type for each engine. Follow the appropriate procedure for each different "type" of engine.						

### Appendix IX - Off-Road Diesel HS 10 codes and descriptions

Off-Road Diesel HS 10 codes and descriptions as referred to in H.15. The following codes have been identified by Environment Canada as being likely to fall under the *Off-Road Compression-Ignition Engine Emission Regulations*. More information on HS codes is available at the Canada Border Services website at:

www.cbsa.gc.ca/eservices/ogd-amg/hs-sh-eng.html

Engine Codes	Description
8408200010	Diesel or semi-diesel engines for pedestrian, track-laying or agric tractors
8408200091	Compr-ign eng for instal in agr trac or in veh of TI 8704.10.00,8701.90.10/.90
8408200099	Other compression ignition engines, nes
8408900011	Dies,semi-dies,dies dual fuel engines for water, oil or nat gas prod,<=149.2 kW
8408900012	Dies,semi-dies,dies dual fuel eng for wat oil or nat gas prod >149.2 but<=373 kW
8408900013	Dies,semi-dies,dies dual fuel eng for wat, oil or nat gas prod >373 but<=746 kW
8408900014	Dies,semi-dies,dies dual fuel eng for wat, oil or nat gas prod >746 but<=1119 kW
8408900015	Dies,semi-dies,dies dual fuel engines for water,oil or natural gas prod >1119 kW
8408900091	Compr-ign engines for instal in agr or hortic mchy or equip
8408900092	Compr-ign engines for instal in const mchy or equip
8408900094	Compression ignition engines,<=149.2 kW, nes
8408900095	Compression ignition engines, >149.2 but<=373 kW, nes
8408900096	Compression ignition engines, >373 but<=746 kW, nes
8408900097	Compression ignition engines, >746 KW but<=1,119 kW, nes
8408900098	Compression ignition engines, >1,119 kW, nes
Machine Codes	
8413400000	Concrete pumps
8414400010	Air compressor mtd on whld chassis f towing,>0.75 m?/s for wat,oil,nat gas prod
8414400091	Other air compressors mounted on wheeled chassis for towing,<=0.02 m?/s
8414400092	Other air compressors mounted on whld chassis for towing >0.02 but<=0.08 m?/s
8414400093	Other air compressors mounted on whld chassis for towing >0.08 but<=0.2 m?/s
8414400094	Other air compressors mounted on wheeled chassis for towing >0.2 but<=0.5 m?/s
8414400095	Other air compressors mounted on wheeled chassis for towing >0.5 m?/s
8426200000	Tower cranes
8426300000	Portal or pedestal jib cranes
8426410010	Cable operated lift machinery, self-propelled, on tires
8426410090	Other lift machinery, self-propelled, on tires, o/t cable operated
8426410091	Works trucks fitted with a crane, self-propelled, on tires
8426410099	Derricks, cranes or work trucks fitted with a crane,self-propelled,on tires,nes
8426490010	Cable operated derrick,crane/work truck fitted with a crane,self-propelled,nes
8426490090	Derricks,cranes/work trucks fitted with a crane,o/t cable op,self-propelled,nes
8426990000	Cranes or derricks, nes
8427201100	Counterbalanced fork-lift trucks, rider-type, rough terrain type
8427201900	Counterbalanced fork-lift trucks, rider-type, nes
8427209010	Self-propelled fork-lift trucks, nes
8427209090	Self-propelled work trucks, nes
8427209110	Yard type fork-lift trucks, self-propelled, lift cap >2,700 kg, o/t electric
8427209110	Fork-lift trucks, self-propelled, container carriers, stackers, etc

8427209190	Self-prop truck,container stack/carrier,ladle transfer car,manlift platform,etc
8427209190	Self-prop truck,cntr carrier,ladle transfer car,manlift platform,etc,o/tforklift
8427209910	Other,self-prop fork-lift trucks for factories/warehouses,pwrd by liq nat gas
8427209920	Fork-lift trucks for factories/warehouse, powered by liquefied petroleum gases
8427209930	Other self-propelled fork-lift trucks, o/t electric, nes
8427209990	Self-propelled work trucks, o/t electric, nes
8428900011	Well drilling derricks
8428900012	Well servicing rigs
8428900013	Self-propelled crawler mounted pipelayers
8428900040	Woodland log handling machinery (other than skidders)
8428900092	Sidebooms and pipehandlers for lifting, handling, loading or unloading
8428900093	Loaders, used in underground mining
8428900099	Lifting, handling, loading or unloading machinery, nes
8429110000	Bulldozers and angledozers, track laying, self-propelled
8429110010	Bulldozers & angledozers, self-propelled, track laying, new
8429110020	Bulldozers & angledozers, self-propelled, track laying, used or rebuilt
8429190000	Bulldozers and angledozers, o/t track laying, self-propelled
8429190010	Bulldozers and angledozers, self-propelled, o/t track laying, new
8429190020	Bulldozers and angledozers, self-propelled, o/t track laying, used or rebuilt
8429200010	Levellers, self-propelled, used on the farm
8429200090	Graders and levellers, self-propelled, o/t levellers used on the farm, nes
8429300011	Scrapers,combination excavating & transporting,self-propelled,new,cap<=13.7 m?
8429300012	Scrapers,combination excavating & transporting,self-propelled,new,cap >13.7 m?
8429300091	Scrapers, self-propelled, new, nes
8429300092	Scrapers, self-propelled, used or rebuilt, nes
8429300013	Scrapers,combination excavating & transporting,self-propelled,used or rebuilt
8429400010	Tamping machines, self-propelled
8429400011	Tamping machines self-propelled, vibratory, new
8429400012	Tamping machines, self-propelled, non vibratory, new
8429400020	Road rollers, self-propelled, used or rebuilt
8429400032	Road rollers, self-propelled, used or rebuilt
8429400031	Road rollers, self-propelled, new
8429510011	Wheeled front-end shovel loader,new,2 whl drive,rear eng mtd,bucket cap >12.3 m?
8429510012	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,bucket cap >12.3 m?
8429510013	Wheeled front-end shovel loader,used or rebuilt,fitted with bucket cap >12.3 m?
8429510019	Wheeled front-end shovel loaders, fitted with bucket capacity >12.3 m?, nes
8429510020	Wheeled front-end shovel loader, used/rebuilt, fitted w bucket cap<=12.3 m?
8429510030	Wheeled front-end shovel loader,new,2 wheel drive,rear eng mtd,cap<=12.3 m?
8429510041	Wheeled front-end shovel loader,new,4 wheel drive,rear eng mtd,bucket cap <1.5m?
8429510042	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,cap>=1.5 but <2.2m?
8429510043	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,cap>=2.2 but <2.9m?
8429510044	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,cap>=2.9 but <3.8m?
8429510045	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,cap>=3.8 but <5.2m?
8429510046	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,cap>=5.2 but <7.6m?
8429510047	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,cap>=7.6 b <11.4m?
8429510048	Wheeled front-end shovel loader,new,4 whl drive,rear eng mtd,cap>=11.4 b<=12.3m?
8429510050	Wheeled front-end shovel loader, fitted with bucket cap<=12.3 m?, nes

8429510061	Track-laying front-end shovel loaders,new,engine power <44.7 kW
8429510062	Track-laying front-end shovel loaders,new,engine power>=44.7 but <67.1 kW
8429510063	Track-laying front-end shovel loaders,new,engine power>=67.1 but <93.2 kW
8429510064	Track-laying front-end shovel loaders,new,engine power>=93.2 but <119.3 kW
8429510065	Track-laying front-end shovel loader,new,engine power>=119.3 kW
8429510066	Track-laying front-end shovel loaders, used or rebuilt
8429520020	Draglines for mining or guarrying with 360? revolving structure, nes
8429520031	Crawler mounted backhoe, shovel & clamshell, hydraulic, new, w 360? revolving struct
8429520039	Crawler mtd backhoe,shovel & clamshell,o/t hydraulic,new,w 360? revolving struct
8429520041	Backhoe,shovel & clamshell,hydraulic,new,with 360? revolving structure,nes
8429520049	Backhoe,shovel & clamshell,o/t hydraulic,new,with 360? revolving structure,nes
8429520050	Backhoe, shovel & clamshell, used or rebuilt, with 360? revolving structure
8429520091	Shovels and excavators, new, with 360? revolving structure, nes
8429520091	Shovels and excavators, used or rebuilt, with 360? revolving structure, nes
8429590011	Shovels, clamshells and draglines for mining or quarrying, new
8429590011	Shovels, clamshells and draglines for mining or quarrying, new  Shovels, clamshells and draglines for mining or quarrying, used or rebuilt
8429590018	Self-propelled excavating machinery, for mining or quarrying, new, nes
8429590019	Self-propelled excavating machinery,for mining or quarrying,used or rebuilt,nes
8429590020	Traction ditching machines (not being ploughs)
8429590091	Self-propelled backhoes, new, nes
8429590092	Self-propelled backhoes, used or rebuilt, nes
8429590093	Self-propelled ditchers and trenchers, ladder type, new
8429590094	Self-propelled ditchers and trenchers, o/t ladder type, new
8429590095	Self-propelled ditchers and trenchers, used
8429590096	Self-propelled excavating machinery, o/t mining/quarrying, new, nes
8429590099	Self-propelled excavating machinery, o/t mining/quarrying, used or rebuilt, nes
8430100000	Pile-drivers and pile-extractors
8430310010	Coal cutters, self-propelled
8430310020	Rock cutters and tunnelling machinery, self-propelled
8430390010	Coal cutters, o/t self-propelled
8430390020	Rock cutters and tunnelling machinery, not self-propelled
8430410010	Post hole diggers, self-propelled
8430410030	Coal drilling machinery, self-propelled
8430410040	Rotary blasthole drills used in open pit mining, self-propelled
8430410050	Drilling/work-over rigs,used in explor,discovery,etc of oil wells,etc,s-prop
8430410090	Boring or sinking machinery, self-propelled, nes
8430500000	Other mchy,s-prop,for moving,grading,levelling,scraping,etc nes,eg. dredgers
8430610000	Tamping or compacting machinery, not self-propelled
8430690010	Traction ditching machines (not being ploughs), not self-propelled
8430690021	Combination excavating and transporting scrapers, not self-propelled
8430690029	Scrapers, not self-propelled, nes
8430690090	Other machinery, not self-propelled, nes
8432800020	Forestry machinery for soil preparation or cultivation
8433300010	Other haying machinery, swathers or windrowers
8433300090	Other haying machinery, nes
8433400000	Straw or fodder balers, including pick-up balers
8433510010	Combine harvester-threshers, self-propelled

8433520000	Threshing mach, o/t combine harvester-threshers
8433530010	Root or tuber harvesting machines for potatoes
8433530020	Root or tuber harvesting machines for beets
8433530090	Other root or tuber harvesting machines, nes
8433590010	Forage harvesters
8433590090	Other harvesting machinery; threshing machinery, nes
8436809110	Slashers, forestry type
8436809120	Chippers, forestry type
8436809130	Wood processors, forestry type
8436809140	Tree felling machines, forestry type
8436809190	Hydraulic tree saws, felling heads & other shredders, nes, forestry type
8436809920	Chippers, nes, forestry type
8436809990	Other forestry type machinery, nes
8474310020	Portable concrete or mortar mixers
8474320020	Portable machines for mixing mineral substances with bitumen
8479100010	Concrete spreaders, pavers, finishers, profilers or finegraders
8479100020	Bituminous spreaders, pavers, finishers, profilers or finegraders
8479100090	Machines for public works, building or the like, having individual functions,nes
8502111000	Generating sets w compression ignt int combu pstn eng (diesl/semi-diesl)<=35kVA
8502119000	Other generating sets w compression ignt int combu pstn eng (diesl/semi-diesl)
8502120000	Generating sets w compression ignt int combu pstn eng (diesl/semi-diesl)>35kVA<375kVA
8502130000	Generating sets w compression ignt int combu pstn eng (diesl/semi-diesl)>375kVA
8701101000	Tractors, pedestrian controlled, powered by an internal combustion engine
8701300011	Tractors, tk-lying, new, powered by int combu eng, net eng power < 93.3 KW
8701300012	Tractors,tk-lying,new, powered by int combu eng,net eng pwr>=93.3KW but <119.4kw
8701300013	Tractors,tk-lying,new,powered by int combu eng,net eng pwr>=119.4KW but <194KW
8701300014	Tractors,tk-lying,new,powered by int combu eng,net eng pwr>=194KW but <257.4KW
8701300015	Tractors,tk-lying,new,powered by int combu eng,net eng power>=257.4KW
8701300020	Tractors, track-laying, used, powered by an internal combustion engine
8701901000	Yard shunting tractors
8701909010	Tractors, wheel, powered by int combu eng, used to haul logs (log skidders)
8701909021	Tractors, whl, agr, new, powered by an int combu eng, with a PTO < 14.9KW
8701909022	Tractors, whl,agr,new, powered by int combu eng, PTO >=14.9KW but < 22.4KW
8701909023	Tractors, whl,agr, new, powered by int combu eng, PTO >=22.4KW but < 29.8KW
8701909024	Tractors, whl,agr, new, powered by int combu eng, PTO >=29.8KW but < 44.8KW
8701909025	Tractors, whl,agr, new, powered by int combu eng, PTO >=44.8KW but< 59.7KW
8701909026	Tractors, whl,agr, new, powered by int combu eng, PTO >=59.7KW but < 74.6KW
8701909031	Tractors, whl.agr, new, powered by int combu eng, PTO >=74.6KW but < 89.5KW
8701909032	Tractors, whl,agr, new, powered by int combu eng, PTO >=89.5KW but < 104.4KW
8701909033	Tractors, whl,agr, new, powered by int combu eng, PTO >=104.4KW but < 119.4KW
8701909034	Tractors, whl,agr, new, powered by int combu eng, PTO >=119.4KW but < 134.3KW
8701909035	Tractors, whl,agr, new, powered by an internal combustion engine, PTO >=134.3KW
8701909040	Tractors, whl,agr, new, powered by int combu eng, with no PTO (Power take-off)
8701909050	Tractors, whl,agricultural, used, powered by an internal combustion engine
8701909081	Tractors, whi, agricultural, deed, powered by an int combu engine, net eng power of < 223.8KW
8701909082	Tractors, whl,non-agr, powered by int combu eng, net eng pwr >=223.8KW < 373KW
8701909083	Tractors, whi,non-agr, powered by an int combu eng, net engine power >=373KW

8704100010	Dumpers, off-highway, with cab chassis, for the transport of goods
8704100021	Rear dumpers, off-hway,nes,for the transp of goods, capacity<=40.8 metric tonnes
8704100022	Rear dumpers,off-hway,nes,for the transp of goods, cap >40.8<=63.5 metric tonnes
8704100023	Rear dumpers,off-hway,nes,for the transp of goods, cap >63.5<=90.7 metric tonnes
8704100024	Rear dumpers, off-hway,nes,for the transp of goods, capacity >90.7 metric tonnes
8704100090	Dumpers, off-hway,(including side & bottom dump),nes
8705100000	Crane lorries (mobile cranes)
8705109000	Crane lorries (mobile cranes), o/t for underground mining, nes
8705109011	Crane lorries(mobile cranes), cable-operated, o/t for underground mining
8705109019	Crane lorries(mobile cranes), not cable-operated, o/t for underground mining
8705109091	Crane lorries(mobile cranes), cable-operated, o/t for underground mining
8705109099	Crane lorries(mobile cranes), not cable-operated, o/t for underground mining
8705200010	Derricks, drilling, mobile, for drilling oil or natural gas wells
8705200020	Derricks, drilling, mobile, for drilling water wells
8705200090	Other mobile drilling derricks
8705909010	Spraying lorries, vehicles for spreading dry or liquid fertilizer or sludge for agricultural use
8706001000	Chassis,w int combu eng for ped cntl,tk-lying & o trac excl road & log skidders