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GUIDANCE DOCUMENT

Subfleet Averaging and End of Model Year Reporting Requirements for On-Road Motorcycles

In relation to the
On-Road Vehicle and Engine Emission Regulations
under the
Canadian Environmental Protection Act, 1999

Transportation Division
Environment Canada

April 2008

Canada 

Disclaimer

This document is intended to provide guidance only. It does not in any way supersede or modify the requirements of the *Canadian Environmental Protection Act, 1999* or the *On-Road Vehicle and Engine Emission Regulations*, made under that Act. In the event of an inconsistency between this document and the Act and/or the Regulations, the Act and the Regulations prevail.

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APPENDICES

Chapter 1: INTRODUCTION

The *On-Road Vehicle and Engine Emission Regulations*¹ (i.e., the parent Regulations) came into effect on January 1, 2004, under the *Canadian Environmental Protection Act, 1999* (CEPA 1999),² to align Canadian standards for the control of smog-forming emissions with those of the United States for all classes of on-road vehicles, including motorcycles. The Regulations were amended on November 2, 2006 (i.e., the *Regulations Amending the On-Road Vehicle and Engine Emission Regulations*),³ to maintain alignment with more stringent emission requirements subsequently introduced in the U.S. for 2006 and later model year motorcycles, and to provide similar compliance-related flexibilities that were not addressed under the parent Regulations.

This document provides guidance to companies on the subfleet averaging provisions and end of model year reporting requirements of the Regulations for on-road motorcycles. Any references to the “Regulations” refer to the *On-Road Vehicle and Engine Emission Regulations* as amended by the *Regulations Amending the On-Road Vehicle and Engine Emission Regulations*.

The guidance is provided in the form of questions and answers on the main provisions of the subfleet averaging and end of model year reporting requirements of the Regulations. The order of the questions generally follows the order of the sections in the Regulations, and the answers reference the Regulations as required.

Chapter 2: GENERAL SCOPE OF SUBFLEET AVERAGING REQUIREMENTS

2.1 In brief, what are the main elements of the subfleet averaging requirements for on-road motorcycles?

The motorcycle emission standards set out in the Regulations provide companies the flexibility of certifying individual models of on-road motorcycles either to the applicable emission standards or to “family emission limits” (FELs).⁴ Companies opting to certify motorcycles to FELs may use emissions averaging as the basis for demonstrating compliance with the Regulations.

¹ *On-Road Vehicle and Engine Emission Regulations*, *Canada Gazette*, Part II, January 1, 2003, SOR/2003-2, www.ec.gc.ca/CEPARRegistry/regulations/DetailReg.cfm?intReg=65&x=10&y=7.

² *Canadian Environmental Protection Act, 1999*, S.C. 1999, c. 33, www.ec.gc.ca/CEPARRegistry/the_act/.

³ *Regulations Amending the On-Road Vehicle and Engine Emission Regulations*, *Canada Gazette*, Part II, November 15, 2006, SOR/2006-268, www.ec.gc.ca/CEPARRegistry/Regulations/DetailReg.cfm?intReg=99.

⁴ Family emission limits are addressed in Chapter 4 of this document.

The main elements of the Regulations associated with subfleet averaging requirements for on-road motorcycles are

- exhaust and evaporative emission standards;
- FELs and subfleet averaging;
- the calculation of the subfleet average emission values;
- the generation of hydrocarbon + nitrogen oxide (HC+NOx) emission credits and deficits;
- the submission, by the company, of end of model year reports; and
- the retention, by the company, of various associated records.

Environment Canada monitors compliance with subfleet averaging via the end of model year report that all companies are required to submit pursuant to the Regulations.

2.2 Who is required to comply with the subfleet averaging requirements of the Regulations for motorcycles, including the requirements for end of model year reporting?

The motorcycle exhaust and evaporative emission standards apply to “companies” in respect of their individual motorcycles or their motorcycle “subfleets”.

Pursuant to the definition in section 149 of CEPA 1999, a “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 person; or
- (c) imports any vehicle, engine or equipment into Canada for the purpose of sale.”

As indicated in section 32.1 of the Regulations, “subfleet” means “motorcycles of a specific model year that have a family emission limit and that a company manufactures in Canada, or imports into Canada, for the purpose of sale to the first retail purchaser”.

2.3 A company may import into Canada more than one brand of motorcycles for the purpose of sale to the first retail purchaser. Do subfleet averaging requirements apply individually to each brand of motorcycles imported into Canada by a given company and for a given model year?

No. As indicated above, a subfleet comprises motorcycles that a company manufactures in Canada, or imports into Canada, for the purpose of sale to the first retail purchaser. Accordingly, a given “company’s subfleet” can include all brands of motorcycles that a company imports into Canada for the purpose of

sale to the first retail purchaser. Alternatively, a company may divide its different brands into separate subfleets and report on that basis, provided that all applicable motorcycles that are part of the broader subfleet are included in the company's annual reporting.

Chapter 3: EXHAUST AND EVAPORATIVE EMISSION STANDARDS

3.1 What are Canada’s regulated exhaust emission standards for motorcycles?

Canada’s regulated exhaust emission standards for motorcycles are aligned with those of the U.S. Environmental Protection Agency (EPA) and are incorporated by reference to the U.S. *Code of Federal Regulations* as set out in sections 17 and 19 of the Canadian Regulations. Motorcycles are required to comply with emission standards for a defined “full useful life” period. The useful life is specified in years or as accumulated mileage, whichever comes first, and varies depending on the class of motorcycle. Motorcycle classes are based on engine displacement. Table 1 summarizes the exhaust emission standards, engine displacement and useful life for the various classes of motorcycles.

Table 1
Exhaust Emission Standards for Motorcycles

Class	Model Year	Engine Displacement (cc)	Useful Life (years / km)	HC+NOx (g/km)	HC (g/km)	CO (g/km)
IA	2006 and later	<50	5 / 6,000	1.4 ¹	1.0	12.0
IB	2006 and later	50–169	5 / 12,000	1.4 ¹	1.0	12.0
II	2006 and later	170–279	5 / 18,000	1.4 ¹	1.0	12.0
III	2006–2009 (Tier 1)	280+	5 / 30,000	1.4	--	12.0
	2010 and later (Tier 2)			0.8	--	12.0

1. Companies have the option of meeting a combined HC+NOx standard for Class I and Class II motorcycles instead of the HC standard.

3.2 The parent Regulations did not establish limits to control evaporative emissions⁵ from on-road motorcycles. Do motorcycles have to meet any form of evaporative emission standards under the amended Regulations?

Yes. The Regulations were amended to require that, beginning in the 2008 model year, fuel tanks and fuel hoses on on-road motorcycles meet permeation emission⁶ standards that are aligned with those of the U.S. The U.S. standards are incorporated by reference to the U.S. *Code of Federal Regulations* as set out in sections 17 and 19 of the Canadian Regulations. These standards limit fuel tank permeation to 1.5 grams per square meter per day (g/m²/day) based on the inside area of the tank, and limit fuel hose permeation to 15 g/m²/day based on the inside area of the hose.

3.3 The U.S. Environmental Protection Agency has alternative emission standards for companies that manufacture or import a “small volume” of motorcycles. Do these Regulations have similar provisions?

Yes. A company that manufactures or imports fewer than 200 motorcycles for sale in Canada per year and has fewer than 500 employees worldwide is only required to comply with the Tier 1 exhaust emission standards for its Class III motorcycles beginning in the 2008 model year. The company’s motorcycles of the 2006 and 2007 model year would continue to be subject to the previous standards applicable to 2005 model year motorcycles (i.e. 5.0 g/km HC and 12.0 g/km CO) and would not be eligible for subfleet averaging for those model years. These alternative standards are set out in subsections 17.1(1) and 17.1(2) of the Regulations.

In addition, a company that manufactures or imports a “small volume” of motorcycles, as set out above, is not required to comply with the evaporative emission standards for all classes of motorcycles until the 2010 model year. This provision is set out in subsection 17.1(3) of the Regulations.

The types of classic and custom motorcycles typically built by small-volume manufacturers tend to make the addition of new technologies a uniquely resource-intensive prospect. The general intent of the U.S. special provisions for small-volume manufacturers was stated by the U.S. EPA as "to reduce the burden while ensuring the vast majority of the program is implemented to ensure timely emission reductions".

⁵ “Evaporative emissions” refers to HC emissions that result from the evaporation of fuel.

⁶ “Permeation emissions” refers to evaporative emissions that result from the permeation of fuel through the fuel system materials.

3.4 Is there an option for companies to certify motorcycles above the applicable exhaust and evaporative emission standards?

Yes. The Regulations include the option for companies to meet emission standards for HC+NO_x and fuel tank permeation on the basis of subfleet averaging. As set out in subsection 32.2(1), a motorcycle can conform to a family emission limit (FEL) for HC+NO_x or for fuel tank permeation in lieu of the emission standards. There are no averaging options for the fuel line permeation standard.

The complete details on FELs, the calculation of average emission values for subfleets and the generation of emission credits/deficits are discussed in chapters 4, 5 and 6 of this document.

Chapter 4: FAMILY EMISSION LIMITS AND SUBFLEET AVERAGING REQUIREMENTS

4.1 What is a family emission limit?

As outlined in section 32.1 of the Regulations, a family emission limit (FEL) refers to “the maximum emission level established by a company for an engine family for the purpose of emissions averaging”.

Using this approach, a company may use emissions averaging as the basis for demonstrating compliance with the Regulations by certifying some motorcycles to specified FELs above the applicable emission standard and other motorcycles to FELs below the standard, provided that the calculated sales-weighted average emissions level of such motorcycles does not exceed the applicable emission standard.

4.2 Family emission limits are used for the purpose of averaging exhaust and fuel tank permeation emissions of a company’s new motorcycle subfleet of a given model year. What are the subfleets?

Pursuant to section 32.1, each of the following groupings of motorcycles constitutes a subfleet for the purpose of emissions averaging:

- a) all Class I and Class II motorcycles certified to a family emission limit (FEL) in respect of the optional HC+NO_x exhaust emission standard
- b) all Class III motorcycles certified to an FEL in respect of the applicable HC+NO_x exhaust emission standard
- c) all motorcycles with a non-metal fuel tank certified to an FEL in respect of the fuel tank permeation emission standard

4.3 Family emission limits are established by a company. Are there restrictions as to how high the family emission limits can be?

Yes. As specified in subsection 32.2(2) of the Regulations, which references section 449 of the U.S. *Code of Federal Regulations*, the maximum allowable family emission limits (FELs) for HC+NO_x emissions for Class III motorcycles are established at 5.0 g/km for the 2006–2009 model years and 2.5 g/km for the 2010 and later model years. Similarly, the maximum allowable FEL for HC+NO_x emissions for Class I and Class II motorcycles of the 2006 and later model year is 5.0 g/km. There are no maximum FELs for fuel tank permeation emissions.

4.4 How does a company conform to subfleet averaging requirements?

For the purpose of the subfleet averaging requirements of the Regulations, a company's subfleet of motorcycles that are certified to family emission limits can effectively be divided into two main groups as depicted in Figure 1.

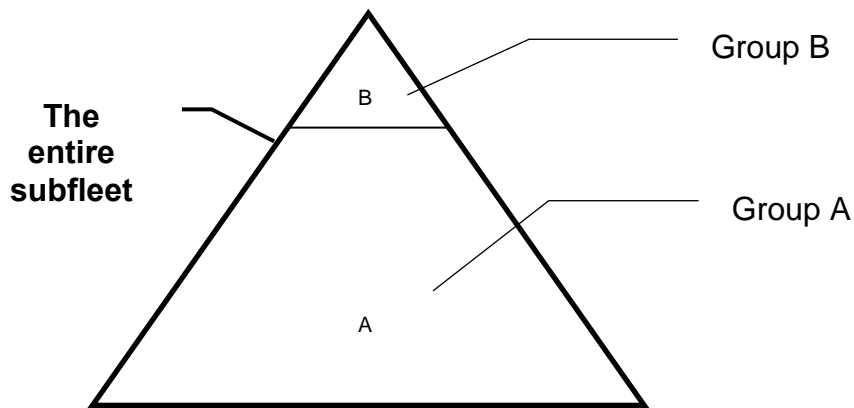


Figure 1: Illustration of the division of a company's given subfleet of motorcycles certified to FELs

For most companies subject to the subfleet averaging requirements, the vast majority of their motorcycles available in Canada have equivalent motorcycles (i.e., same engine family) sold concurrently in the U.S. which meet the following criteria (represented by Group A in Figure 1):

- each motorcycle of the subfleet is covered by a U.S. Environmental Protection Agency (EPA) certificate
- each motorcycle conforms to the FEL referred to in the certificate
- each motorcycle belongs to an engine family of which the total number of units sold in Canada does not exceed the total number of units sold in the United States

Paragraph 32.2(3)(a) of the Regulations allows a company's subfleet to include motorcycles that conform to an FEL that is greater than the applicable HC+NO_x emission standard, but lower than the maximum allowable values, or the fuel

tank permeation emission standard in the group of motorcycles that are sold concurrently in Canada and in the U.S., provided each motorcycle within the subfleet meets the criteria for Group A.

The above provision is included in the Regulations on the basis that the U.S. EPA requirements serve as an anchor towards ensuring that any variation in the environmental performance of this group of motorcycles relative to the average standards would be small.

Group B consists of motorcycles that do not meet the criteria for inclusion in Group A. Accordingly, Group B would consist of motorcycles that are not sold concurrently in Canada and in the U.S. (i.e., “Canada-unique” models with no U.S. equivalent), and motorcycles that are sold concurrently in Canada and in the U.S. that belong to an engine family of which the total number of units sold in Canada exceeds the total number of units sold in the United States.

Paragraph 32.2(3)(b) of the Regulations allows a company’s subfleet to include one or more motorcycles that conform to a family emission limit that is greater than the applicable HC+NOx emission standard, but lower than the maximum allowable values, or the fuel tank permeation emission standard, but that do not meet all of the criteria for inclusion in Group A. However, the average HC+NOx value or the average fuel tank permeation value, as the case may be, must not exceed the applicable emission standards in respect of

- i. the entire subfleet; or
- ii. only those motorcycles in Group B.

4.5 How does a company demonstrate compliance with subfleet averaging requirements?

A company demonstrates compliance with the subfleet averaging requirements by submitting an end of model year report that conforms to the requirements outlined in Chapter 7 of this document and by complying with all applicable standards.

4.6 Can selected motorcycles that meet the criteria for Group A be included in Group B for the calculation of the average emission values?

No. The calculation of the average emission values for Group B, as required under paragraph 32.2(3)(b) of the Regulations, must include only motorcycles that do not meet the requirements of Group A as defined in the previous question.

This requirement is established to remove the opportunity for companies to artificially lower the average emission value for Group B.

Chapter 5: CALCULATION OF SUBFLEET AVERAGE EMISSION VALUES

5.1 What is a subfleet average emission value?

A subfleet average emission value is the calculated average emission of a company's subfleet of motorcycles of a given model year, based on the actual number of motorcycles of that model year that are certified to a family emission limit (FEL). For any given model year, a company may calculate average emission values for one or more of the subfleets specified in section 4.2.

5.2 How is a subfleet average HC+NO_x emission value calculated?

As outlined in subsection 32.3(1) of the Regulations, the subfleet average emission value for HC+NO_x, expressed in g/km, is calculated in accordance with the following equation:

$$\frac{\sum(A \times B \times C)}{\sum(B \times C)} \quad [1]$$

where

A represents the applicable family emission limit, expressed to the same number of decimal places as the emission standard it replaced;

B represents the useful life of the engine family expressed in years or kilometres; and

C represents the total number of motorcycles in the engine family.

5.3 How is a subfleet average fuel tank permeation emission value calculated?

As outlined in subsection 32.3(2) of the Regulations, the subfleet average emission value for fuel tank permeation, expressed in g/m²/day, is calculated in accordance with the following equation:

$$\frac{\sum A \times B \times C \times 365.24}{\sum B \times C \times 365.24} \quad [2]$$

where

A represents the applicable family emission limit, expressed to the same number of decimal places as the emission standard it replaced;

B represents the useful life of the engine family expressed in units of years; and

C represents the number of motorcycles in the engine family multiplied by the average internal surface area of the motorcycles' fuel tanks, where the average internal surface area is expressed in square meters (m²) to at least three decimal places.

5.4 Are there provisions respecting the procedures for rounding the calculated subfleet average emission values?

Yes. As specified in subsection 32.3(3) of the Regulations, the average HC+NO_x emission value and average fuel tank permeation emission value must be rounded to one decimal place.

Furthermore, consistent with the definition of “*rounded*” in section 1 of the Regulations, all rounding must be performed in accordance with method ASTM-E29-93a of the American Society for Testing and Materials.

5.5 If a company divides its subfleet into two groups for the purpose of the subfleet averaging provisions of the Regulations as set out in subsection 32.2(3), are additional average emission value calculations required?

Yes. If a company effectively divides its subfleet into two groups (i.e., Group A and Group B) for the purpose of the subfleet averaging provisions of the Regulations, based on the subfleet average value of those motorcycles that do not meet all of the criteria for inclusion in Group A, the company is also required to calculate a separate average emission value for its motorcycles that are part of Group B. The calculation of an average emission value for that group B is conducted using the same formula as for the entire subfleet, but with the necessary modifications (i.e., variables apply to groups instead of subfleets). This is set out in subsection 32.7(4) of the Regulations.

5.6 If a company divides its subfleet of Class III motorcycles into two groups to meet the subfleet averaging provisions of the Regulations as set out in subsection 32.2(3), are there any consequences with respect to its emission credits?

Yes. A company that divides its subfleet into two groups as set out in paragraph 32.2(3)(b) in order to meet the subfleet averaging requirements will not generate any credits, even if the average emission value for its Group B motorcycles is below the applicable standard. This is set out in subsection 32.4(1) of the Regulations.

5.7 When are companies required to calculate subfleet average emission values?

As set out in section 32.3 of the Regulations, a company is required to calculate an average emission value for any given subfleet that includes one or more motorcycles that conform to a family emission limit that is greater than the applicable emission standards.

In addition, if a company divides its subfleet into two groups pursuant to paragraph 32.2(3)(b), it is also required to calculate a subfleet average emission value for those motorcycles that are part of Group B.

5.8 Can a company calculate an average HC+NOx emission value for its subfleet of Class III motorcycles even if all its motorcycles conform to a family emission limit that is lower than the applicable emission standards?

Yes. A company can elect to calculate an average HC+NOx emission value for its subfleet of Class III motorcycles even if all motorcycles conform to a family emission limit (FEL) that is lower than the applicable emission standards in order to obtain credits that would be used to offset an HC+NOx emission deficit incurred in respect of its subfleet of Class I and Class II motorcycles. The calculation and use of credits/deficits is further explained in Chapter 6 of this document.

5.9 Do the subfleet averaging provisions also apply to Class I and Class II motorcycles certified to the HC emission standard?

No. A company can not use emissions averaging as the basis for demonstrating compliance with the HC emission standard for Class I and Class II motorcycles.

A company may use emissions averaging as the basis for demonstrating compliance only for those Class I and Class II motorcycles that are certified to a family emission limit for HC+NOx (i.e., optional emission standard for HC+NOx).

5.10 Do the subfleet averaging provisions also apply to Class III motorcycles certified to alternative HC emission standards for the 2006 and 2007 model years under the provision for companies manufacturing or importing a “small volume” of motorcycles?

No. A company that manufactures or imports a “small volume” of motorcycles and that elects to certify its motorcycles to the alternative HC emission standards can not use emissions averaging as the basis for demonstrating compliance with the Regulations for Class III motorcycles.

A company may use emissions averaging as the basis for demonstrating compliance only for those Class III motorcycles that are certified to a family emission limit for HC+NOx (i.e., HC+NOx emission standards applicable to all companies or to companies that manufacture or import a “small volume” of motorcycles after the 2007 model year).

5.11 Can a company include all motorcycles in its calculation of the average fuel tank permeation emission value?

No. Companies are allowed to include, in the calculation of the average fuel tank permeation emission value, only motorcycles that are certified to FELs and are equipped with non-metal fuel tanks. All other motorcycles must individually meet the fuel tank permeation emission standard.

5.12 Since the subfleet averaging provisions of the Regulations came into effect on November 2, 2006, are only those motorcycles manufactured on or after that date eligible to be included in the calculation of subfleet average emission values?

No. A company may include all of its 2006 model year motorcycles, including those manufactured before November 2, 2006, in the subfleet average calculations for the 2006 model year, as provided under subsection 32.3(4) of the Regulations. Similarly, a company may also elect to include all of its 2007 model year or only those manufactured after November 2, 2006, in the subfleet average calculations for the 2007 model year.

Chapter 6: HC+NOx EMISSION CREDITS AND DEFICITS

6.1 What are HC+NOx emission credits?

HC+NOx emission credits are obtained when a company's average HC+NOx emission value for its subfleet of Class III motorcycles of a given model year is lower than the applicable HC+NOx emission standard and the company reports the credits in its end of model year report. This is set out in subsection 32.4(1) of the Regulations.

6.2 What is an HC+NOx emission deficit?

An HC+NOx emission deficit occurs when a company's average HC+NOx emission value for its subfleet of Class I and Class II motorcycles of a given model year is higher than the applicable HC+NOx emission standard. This is set out in subsection 32.5(1) of the Regulations.

6.3 How are HC+NOx emission credits and deficit calculated?

As set out in subsection 32.4(2) of the Regulations, HC+NOx emission credits for the subfleet of Class III motorcycles, expressed in vehicle-grams, are calculated in accordance with the following equation:

$$(A - B) \times C \times D \quad [3]$$

where

A represents the applicable HC+NOx emission standard for the subfleet;

B represents the average HC+NOx value for the subfleet;

C represents the total number of motorcycles in the subfleet; and

D represents the useful life expressed in kilometres.

An HC+NOx emission deficit for the subfleet of Class I and Class II motorcycles is also calculated using the above formula. However, the calculation is performed by calculating the sum of individual credits/deficit of each of the classes IA, IB

and II. This distinction is required since the useful life for each class of motorcycles is different. This is set out in subsection 32.5(2) of the Regulations.

6.4 Are there provisions respecting the procedures for rounding the calculated credits/deficit?

Yes. As specified in subsection 32.4(2) of the Regulations, the emission credits for Class III motorcycles and the emission deficit for Class I and Class II motorcycles must be rounded to the nearest whole number.

Furthermore, consistent with the definition of “rounded” in section 1 of the Regulations, all rounding must be performed in accordance with method ASTM-E29-93a of the American Society for Testing and Materials.

6.5 When are HC+NOx emission credits obtained?

HC+NOx emission credits for a specific model year are credited on the last day of the model year, as provided in subsection 32.4(3) of the Regulations. Pursuant to section 5 of the Regulations, the last day of a given model year can not be later than December 31 of that year.

6.6 What can a company do with the HC+NOx emission credits that it has obtained for its subfleet of Class III motorcycles in a given model year?

HC+NOx emission credits obtained by a company for its subfleet of Class III motorcycles in a given model year may only be used to offset an HC+NOx emission deficit that the company incurred in the same model year for its subfleet of Class I and Class II motorcycles as set out in subsection 32.4(3).

6.7 Can a company obtain HC+NOx emission credits for its subfleet of Class I and Class II motorcycles if the average HC+NOx emission value is below the applicable standard?

No. A company is only allowed to generate HC+NOx emission credits when its subfleet of Class III motorcycles achieves an average emission value lower than the applicable HC+NOx emission standard.

6.8 Can emission credits be banked for future model years or traded to other companies?

No. HC+NOx emission credits for Class III motorcycles can only be used in the same model year that they were obtained and by the company that obtained them.

6.9 Is a company always required to calculate HC+NOx emission credits for its subfleets?

No. A company is only required to calculate the HC+NOx emission credits for its subfleet of Class III motorcycles when it is required to compensate for a deficit

incurred in its subfleet of Class I and Class II motorcycles (i.e., when the average HC+NO_x value for the subfleet of Class I and Class II motorcycles is above the applicable HC+NO_x emission standard).

Chapter 7: END OF MODEL YEAR REPORTING REQUIREMENTS

7.1 Is there a deadline for companies to submit end of model year reports for motorcycles?

Yes. Under subsection 32.7(1) of the Regulations, a company must submit an end of model year report no later than May 1 following the end of each model year. For example, an end of model year report for the 2006 model year must be submitted no later than May 1, 2007.

7.2 Since the Regulations came into effect on November 2, 2006, are only those companies that manufactured or imported motorcycles on or after November 2, 2006, required to submit a report for the 2006 model year?

No. All companies that manufactured in Canada, or imported into Canada, motorcycles of the 2006 model year for the purpose of sale to the first retail purchaser are required to submit an end of model year report. This is the case even if no motorcycles of the 2006 model year in the company's fleet were manufactured after November 2, 2006, pursuant to section 32.7.

If each of classes IB, II and III motorcycles in the company's 2006 model year fleet, as the case may be, were manufactured before November 2, 2006, a company's report could only include a statement to this effect and a statement of conformity with the applicable motorcycle emission requirements under the *On-Road Vehicle and Engine Emission Regulations*.

For Class IA, if all motorcycles were manufactured before December 1, 2006, a company's report would indicate that each Class IA motorcycle was manufactured before December 1, 2006, and was not subject to the regulated standards under the *On-Road Vehicle and Engine Emission Regulations*.

If applicable, a similar approach may be taken for the 2007 model year.

7.3 To whom should end of model year reports be submitted?

Although subsection 32.7(1) of the Regulations indicates that end of model year reports are to be submitted to the Minister of the Environment, the Executive Director of the Transportation Division administers the Regulations on behalf of the Minister. Accordingly, end of model year reports should be submitted to the Executive Director, at the following address:

Executive Director
Transportation Division
Energy and Transportation Directorate
Environment Canada
351 St. Joseph Blvd.
Gatineau, Quebec K1A 0H3

7.4 Who is required to sign the company's end of model year report?

The end of model year report must be signed by a person who is authorized to act on behalf of the company, as required by subsection 32.7(1) of the Regulations. In the case where the person submitting the report is not the Canadian Importer of Record, the person must also provide the following information to establish the relationship with the motorcycle importer(s):

- a) the name(s) and contact information of the importer(s) of the model of motorcycle identified in the report
- b) evidence that the person is authorized to act on behalf of the applicable importer(s) for the purposes of section 32.7 of the Regulations (e.g., a letter signed by the importer(s) that includes a statement to this effect)

7.5 What information must be included in the end of model year report?

The end of model year report must contain detailed information concerning the company's motorcycles for that model year, including the following:

- a) For each class, subfleet and/or group of motorcycles, statements of conformity with the applicable motorcycle emission standards as prescribed in paragraphs 32.7(2)(a) and (b)
- b) For each subfleet in a model year during which any of the company's subfleet includes one or more motorcycles that conform to a family emission limit (FEL) above the applicable emission standard as set out in subsection 32.7(3),
 - i. the applicable HC+NO_x emission standards and/or fuel tank permeation emission standard;
 - ii. the average HC+NO_x emission values and/or fuel tank permeation emission value;

- iii. values used in calculating the average HC+NOx emission values and/or the average fuel tank permeation emission value for each model of motorcycle;
 - iv. the total number of motorcycles in the subfleet;
 - v. the HC+NOx emission credits for Class III motorcycles, if any, in that model year; and
 - vi. the HC+NOx emission deficit for Class I and Class II motorcycles, if any, in that model year.
- c) For each group of motorcycles described in subparagraph 32.2(3)(b)(ii) (i.e., Group B) in a model year during which any of the company's subfleet includes one or more motorcycles that conform to an FEL above the applicable emission standard as set out in subsection 32.7(4),
- i. the applicable HC+NOx emission standards and/or fuel tank permeation emission standard;
 - ii. the average HC+NOx emission values and/or fuel tank permeation emission value;
 - iii. values used in calculating the average HC+NOx emission values and/or the average fuel tank permeation emission value for each model of motorcycle; and
 - iv. the total number of motorcycles in the group.
- d) For a company that avails itself of one or more of the exemptions for a "small volume" of motorcycles pursuant to section 17.1 of the Regulations,
- i. the number and class of motorcycles that were manufactured or imported under each exemption;
 - ii. the total number of motorcycles that it manufactured or imported for sale in Canada; and
 - iii. the number of employees of the company worldwide.

The specific information that must be included in the end of model year report is set out in section 32.7 of the Regulations.

7.6 Do end of model year reports have to be submitted in a specific format?

No. The Regulations do not specify a mandatory format for end of model year reports. Companies are allowed to submit the reports in a form that is convenient to them, provided that the reports contain all the information specified in the Regulations.

7.7 Is there a template for end of model year reports?

Yes. Environment Canada has developed a suggested template for preparing end of model year reports. The objective is to facilitate the preparation and review of such reports. The template consists of

- a sample cover letter (presented in Appendix A); and
- a suggested format for the report (presented in Appendix B).

Companies are not obligated to use the template but may choose to do so. They may also choose to use it as a guide in the preparation of their own version of end of model year reports.

In addition, Environment Canada has developed an electronic submission form for the calculation and electronic submission of average emission values, credits and deficits for the various subfleets of motorcycles, as applicable. This form is meant to facilitate the electronic entry and processing of data by companies. Nonetheless, a company is still required to provide the various statements and values required under the Regulations. The form is presented in Appendix C and is available electronically upon request.

7.8 Are companies required to maintain records related to subfleet averaging and end of model year reporting?

Yes. The specific records related to the subfleet averaging that companies are required to maintain are set out in section 37.1 of the Regulations. Companies are required to maintain these records, as well as a copy of the company's end of model year report under section 32.7, for a period of at least three years after the due date of the end of model year report, as provided under section 38 of the Regulations.

APPENDICES

Appendix A

Sample Cover Letter

<insert date>

Executive Director
Transportation Division
Energy and Transportation Directorate
Environment Canada
351 St. Joseph Blvd.
Gatineau, Quebec K1A 0H3

Dear Mr./Ms.:

Re: End of Model Year Report for <insert year> Model Year On-Road Motorcycles

In accordance with the requirements of section 32.7 of the *On-Road Vehicle and Engine Emission Regulations*, I am submitting the end of model year report for the <insert year> model year on-road motorcycles on behalf of <insert *Company Name*>.

Should you have any questions concerning the attached report, please do not hesitate to contact me at <insert telephone number> or <insert e-mail address>.

Sincerely,

Signature of authorized official

Name of authorized official
Title of authorized official

Attachment

Appendix B

Suggested Report Format

End of Model Year Report
<Insert Year> Model Year On-Road Motorcycles

*On-Road Vehicle and Engine Emission Regulations
Canadian Environmental Protection Act, 1999*

Submitted by:

<Insert Company Name>

Signature of authorized official

Name of authorized official
Title of authorized official

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Part I – Exhaust Emissions for Class III Motorcycles

- 1) Statement of conformity with applicable exhaust emission standards
 - a) Exhaust emission standard for HC+NO_x
 - b) Optional HC (or HC+NO_x for 2008 and later model years) exhaust emission standard for a company that avails itself of the exemption for a “small volume” of motorcycles
- 2) Statement of conformity for a company’s subfleet of Class III motorcycles that conform to family emission limits for HC+NO_x
- 3) Calculation of the average HC+NO_x emission value for the subfleet of Class III motorcycles
- 4) Average HC+NO_x emission value for the group of Class III motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a)
- 5) Calculation of emission credits for the subfleet of Class III motorcycles that conform to family emission limits for HC+NO_x

Part II – Exhaust Emissions for Class I and Class II Motorcycles

- 1) Statement of conformity with the exhaust emission standard for HC or the optional exhaust emission standard for HC+NO_x
- 2) Statement of conformity for a company’s subfleet of Class I and Class II motorcycles that conform to family emission limits for HC+NO_x
- 3) Calculation of the average HC+NO_x emission value for the subfleet of Class I and Class II motorcycles
- 4) Average HC+NO_x emission value for the group of Class I and Class II motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a)
- 5) Calculation of emission deficit for the subfleet of Class I and Class II motorcycles that conform to family emission limits for HC+NO_x

Part III – Evaporative Emissions for Class I, Class II and Class III Motorcycles

- 1) Statement of conformity with applicable evaporative emission standards
 - a) Fuel tank permeation emission standard
 - b) Exemption for a company manufacturing or importing a “small volume” of motorcycles
- 2) Statement of conformity for a company’s subfleet of Class I, Class II and Class III motorcycles that conform to family emission limits for fuel tank permeation
- 3) Calculation of the average fuel tank permeation emission value for the subfleet of Class I, Class II and Class III motorcycles
- 4) Average fuel tank permeation emission value for the group of Class I, Class II and Class III motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a)

Part IV – Information for Companies Manufacturing or Importing a “Small Volume” of Motorcycles

- 1) Company information
- 2) Motorcycle information

Part I
Exhaust Emissions for Class III Motorcycles

Explanatory note: In this part, the company would report on the exhaust emission performance of its Class III motorcycles of the applicable model year that were manufactured in Canada, or imported into Canada, for the purpose of sale to the first retail purchaser.

1) Statement of conformity with applicable exhaust emission standards

Explanatory note: In this section, the company would make one of the following statements as required in paragraph 32.7(2)(a) of the Regulations if each of the Class III motorcycles conforms to the applicable exhaust emission standards. If the statement does not apply to each motorcycle, the company would make one of the statements required in section 2 of this part. If applicable, a company could state that all Class III motorcycles in its 2006 model year fleet were manufactured before November 2, 2006, and complied with the emission requirements under the On-Road Vehicle and Engine Emission Regulations. (A similar approach may be taken for the 2007 model year, if applicable.)

a) Exhaust emission standard for HC+NO_x

As required in paragraph 32.7(2)(a) of the Regulations, *<insert Company Name>* hereby states that each Class III motorcycle conforms to the applicable exhaust emission standard for HC+NO_x set out in the section of the *Code of Federal Regulations* that is referred to in paragraph 17(a) of the Regulations.

b) Optional HC (or HC+NO_x for 2008 and later model years) exhaust emission standard for a company that avails itself of the exemption for a “small volume” of motorcycles

Explanatory note: This section applies to a company that manufactures or imports fewer than 200 motorcycles for sale in Canada per year, has fewer than 500 employees worldwide, and avails itself of the exemption for exhaust emission standards under section 17.1 of the Regulations. Companies manufacturing or importing a “small volume” of motorcycles are also required to report company and motorcycle information in part IV.

As required in paragraph 32.7(2)(a) of the Regulations, *<insert Company Name>* hereby states that each Class III motorcycle conforms to the applicable exhaust emission standard for HC (or HC+NO_x for 2008 and later model years) set out in the section of the *Code of Federal Regulations* that is referred to in section 17.1 of the Regulations.

2) Statement of conformity for a company's subfleet of Class III motorcycles that conform to family emission limits for HC+NOx

Explanatory note: In this section, the company would make one of the following statements as required in paragraph 32.7(2)(b) of the Regulations to demonstrate compliance with subfleet averaging requirements for Class III motorcycles that conform to family emission limits for HC+NOx. The company would also complete the table in section 3 of this part, unless each motorcycle of the company's subfleet of Class III motorcycles conforms to a family emission limit for HC+NOx that is below the applicable exhaust emission standards set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) or section 17.1 of the Regulations, and the company is not required to generate credits.

- i. As required in subparagraph 32.7(2)(b)(i) of the Regulations, <insert Company Name> hereby states that each motorcycle of the subfleet of Class III motorcycles that conform to family emission limits for HC+NOx meets all the criteria set out in paragraph 32.2(3)(a) of the Regulations;

Explanatory note: The following statement would also apply in the case where each motorcycle of the company's subfleet of Class III motorcycles conforms to a family emission limit for HC+NOx that is below the applicable exhaust emission standards set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) or section 17.1 of the Regulations.

- ii. As required in subparagraph 32.7(2)(b)(ii) of the Regulations, <insert Company Name> hereby states that the subfleet of Class III motorcycles contains motorcycles that do not meet all of the criteria set out in paragraph 32.2(3)(a), but the **subfleet** conforms to the emission averaging requirements set out in paragraph 32.2(3)(b) for HC+NOx exhaust emissions; or
- iii. As required in subparagraph 32.7(2)(b)(ii) of the Regulations, <insert Company Name> hereby states that the subfleet of Class III motorcycles contains motorcycles that do not meet all of the criteria set out in paragraph 32.2(3)(a), but the **group** of Class III motorcycles that do not meet the criteria set out in paragraph 32.2(3)(a) conforms to the emission averaging requirements set out in paragraph 32.2(3)(b) for HC+NOx exhaust emissions.

3) Calculation of the average HC+NOx emission value for the subfleet of Class III motorcycles

Explanatory note: Pursuant to section 32.3 of the Regulations, a company is required to calculate an average emission value for HC+NOx if its subfleet of Class III motorcycles contains one or more motorcycles that conform to a family emission limit that is greater than the applicable exhaust emission standard set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) or section 17.1 of the Regulations. In this section, the company calculates the average emission value for its subfleet of Class III motorcycles that conform to family emission limits for HC+NOx and provides information that is relevant to this calculation by completing the table. Information in column 4 applies to the engine family only. The subfleet average emission value must be rounded to one decimal place.

Engine family	Model	Class	Engine family meets all of the criteria in paragraph 32.2(3)(a) of the Regulations? (Y/N)	HC+NOx FEL for engine family or [1] (g/km)	Useful life for engine family or [2] (km)	Number of motorcycles or [3] (Vehicles)	Numerator of equation [1] or [4] = "1 x 2 x 3" (Vehicle-g)	Denominator of equation [1] or [5] = "2 x 3" (Vehicle-km)
TOTALS (sums):								
Average HC+NOx emission value or [6] = $\sum 4 / \sum 5$ (g/km):								

4) Average HC+NOx emission value for the group of Class III motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a)

Explanatory note: In this section, a company reports the average HC+NOx emission value for the group of Class III motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a) of the Regulations if the company has made statement 2)iii of this part.

Based on the information provided in section 3 of this part, the average HC+NOx emission value of the group of Class III motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a) of the Regulations is: _____ g/km.

5) Calculation of emission credits for the subfleet of Class III motorcycles that conform to family emission limits for HC+NOx

Explanatory note: In this section, a company would calculate the HC+NOx emission credits if the average HC+NOx emission value for the subfleet of Class III motorcycles is below the applicable exhaust emission standards for HC+NOx set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) or section 17.1 of the Regulations. The HC+NOx emission credits must be rounded to the nearest whole number.

Class	HC+NOx emission standard or [1] (g/km)	Average HC+NOx emission value or [2] (g/km)	Total number of motorcycles or [3] (Vehicles)	Useful life for engine family or [4] (km)	HC+NOx emission credits or [5] = "(1 - 2) x 3 x 4" (Vehicle-g)
III				30,000	

Part II
Exhaust Emissions for Class I and Class II Motorcycles

Explanatory note: In this part, the company would report on the exhaust emission performance of its Class I and Class II motorcycles of the applicable model year that were manufactured in Canada, or imported into Canada, for the purpose of sale to the first retail purchaser.

1) Statement of conformity with the exhaust emission standard for HC or the optional exhaust emission standard for HC+NOx

Explanatory note: In this section, the company would make the following statement as required in paragraph 32.7(2)(a) of the Regulations if each of the Class I and Class II motorcycles conforms to the exhaust emission standards for HC or the optional exhaust emission standards for HC+NOx. If the statement does not apply to each motorcycle, the company would make one of the statements required in section 2 of this part. If applicable, a company could state that all Class I and Class II motorcycles in its 2006 model year fleet were manufactured before November 2, 2006 (December 1, 2006, for Class IA), and that all Class IB and Class II motorcycles complied with the emission requirements under the On-Road Vehicle and Engine Emission Regulations. (A similar approach may be taken for the 2007 model year, if applicable.)

As required in paragraph 32.7(2)(a) of the Regulations, <insert Company Name> hereby states that each Class I and Class II motorcycle conforms to the exhaust emission standard for HC or the optional exhaust emission standard for HC+NOx set out in the section of the *Code of Federal Regulations* that is referred to in paragraph 17(a) of the Regulations.

2) Statement of conformity for a company's subfleet of Class I and Class II motorcycles that conform to family emission limits for HC+NOx

*Explanatory note: In this section, the company would make one of the following statements as required in paragraph 32.7(2)(b) of the Regulations to demonstrate compliance with subfleet averaging requirements for Class I and Class II motorcycles that conform to family emission limits for HC+NOx. The company would also complete the table in section 3 of this part, unless each motorcycle of the company's subfleet of Class I and Class II motorcycles conforms to a family emission limit for HC+NOx that is below the applicable exhaust emission standards set out in the section of the *Code of Federal Regulations* that is referred to in paragraph 17(a) of the Regulations.*

- i. As required in subparagraph 32.7(2)(b)(i) of the Regulations, <insert Company Name> hereby states that each motorcycle of the subfleet of Class I and Class II motorcycles that conform to family emission limits for HC+NOx meets all the criteria set out in paragraph 32.2(3)(a) of the Regulations.

Explanatory note: The following statement would also apply in the case where each motorcycle of the company's subfleet of Class I and Class II motorcycles conforms to a family emission limit for HC+NO_x that is below the applicable exhaust emission standard set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) of the Regulations.

- ii. As required in subparagraph 32.7(2)(b)(ii) of the Regulations, <insert Company Name> hereby states that the subfleet of Class I and Class II motorcycles contains motorcycles that do not meet all of the criteria set out in paragraph 32.2(3)(a), but the **subfleet** conforms to the emissions averaging requirements set out in paragraph 32.2(3)(b) for HC+NO_x exhaust emissions; or
- iii. As required in subparagraph 32.7(2)(b)(ii) of the Regulations, <insert Company Name> hereby states that the subfleet of Class I and Class II motorcycles contains motorcycles that do not meet all of the criteria set out in paragraph 32.2(3)(a), but the **group** of Class I and Class II motorcycles that do not meet the criteria set out in paragraph 32.2(3)(a) conforms to the emissions averaging requirements set out in paragraph 32.2(3)(b) for HC+NO_x exhaust emissions.

3) Calculation of the average HC+NOx emission value for the subfleet of Class I and Class II motorcycles

Explanatory note: Pursuant to section 32.3 of the Regulations, a company is required to calculate an average emission value for HC+NOx if its subfleet of Class I and Class II motorcycles contains one or more motorcycles that conform to a family emission limit that is greater than the applicable exhaust emission standard set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) of the Regulations. In this section, the company calculates the average emission value for its subfleet of Class I and Class II motorcycles that conform to family emission limits for HC+NOx, and provides information that is relevant to this calculation by completing the table. Information in column 4 applies to the engine family only. The subfleet average emission value must be rounded to one decimal place.

Engine family	Model	Class	Engine family meets all of the criteria in paragraph 32.2(3)(a) of the Regulations? (Y/N)	HC+NOx FEL for engine family or [1] (g/km)	Useful life for engine family or [2] (km)	Number of motorcycles or [3] (Vehicles)	Numerator of equation [1] or [4] = "1 x 2 x 3" (Vehicle-g)	Denominator of equation [1] or [5] = "2 x 3" (Vehicle-km)
TOTALS (sums):								
Average HC+NOx emission value or [6] = $\sum 4 / \sum 5$ (g/km):								

4) Average HC+NOx emission value for the group of Class I and Class II motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a)

Explanatory note: In this section, a company reports the average HC+NOx emission value for the group of Class I and Class II motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a) of the Regulations if the company has made statement 2)iii of this part.

Based on the information provided in section 3 of this part, the average HC+NOx emission value of the group of Class I and Class II motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a) of the Regulations is: _____ g/km.

5) Calculation of emission deficit for the subfleet of Class I and Class II motorcycles that conform to family emission limits for HC+NOx

Explanatory note: In this section, the company would calculate the HC+NOx emission deficit if the average HC+NOx emission value for the subfleet of Class I and Class II motorcycles or the group of Class I and Class II motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a) is above the applicable average exhaust emission standard for HC+NOx set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) of the Regulations. A company requires an equivalent number of credits from its subfleet of Class III motorcycles to offset an HC+NOx emission deficit incurred for the subfleet of Class I and Class II motorcycles in a given model year. The HC+NOx emission deficit must be rounded to the nearest whole number.

Class	HC+NOx emission standard or [1] (g/km)	Average HC+NOx emission value or [2] (g/km)	Total number of motorcycles or [3] (Vehicles)	Useful life for engine family or [4] (km)	HC+NOx emission credits/deficit or [5] = “(1 – 2) x 3 x 4” (Vehicle-g)
IA				6,000	
IB				12,000	
II				18,000	
TOTAL (Σ of Classes IA, IB and II emission credits/deficit):					

Part III
**Evaporative Emissions for Class I,
Class II and Class III Motorcycles**

(2008 and later model years)

Explanatory note: In this part, the company would report on the evaporative emission performance for all its motorcycles of the applicable model year that were manufactured in Canada, or imported into Canada, for the purpose of sale to the first retail purchaser. Evaporative emission standards only apply to motorcycles of the 2008 and later model years.

1) Statement of conformity with applicable evaporative emission standards

Explanatory note: In this section, the company would make one of the following statements as required in paragraph 32.7(2)(a) of the Regulations if each of the Class I, Class II and Class III motorcycles conforms to the applicable evaporative emission standards. If the statement does not apply to each motorcycle, the company would make one of the statements required in section 2 of this part.

a) Fuel tank permeation emission standard

As required in paragraph 32.7(2)(a) of the Regulations, <insert Company Name> hereby states that each Class I, Class II and Class III motorcycle conforms to the permeation emission standard for fuel tanks set out in the section of the *Code of Federal Regulations* that is referred to in paragraph 17(a) of the Regulations.

b) Exemption for a company manufacturing or importing a “small volume” of motorcycles

Explanatory note: This section applies to any company that manufactures or imports fewer than 200 motorcycles for sale in Canada per year, has fewer than 500 employees worldwide, and avails itself of the exemption for evaporative emission standards under section 17.1 of the Regulations. Companies manufacturing or importing a “small volume” of motorcycles are also required to report company and motorcycle information in part IV.

As required in paragraph 32.7(2)(a) of the Regulations, <insert Company Name> is exempt from the requirement to conform to the applicable evaporative emission standards in respect of its <2008 model year> <or 2009 model year> motorcycles as set out in section 17.1 of the Regulations.

2) Statement of conformity for a company’s subfleet of Class I, Class II and Class III motorcycles that conform to family emission limits for fuel tank permeation

Explanatory note: In this section, the company would make one of the following statements as required in paragraph 32.7(2)(b) of the Regulations to demonstrate compliance with subfleet averaging requirements for motorcycles that conform to family emission limits for fuel tank permeation. The company would also complete the table in section 3 of this part, unless each motorcycle of the company’s subfleet

of motorcycles conforms to a family emission limit that is below the applicable emission standard set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) of the Regulations. Companies manufacturing or importing a “small volume” of motorcycles are exempt from the requirements to conform to evaporative emission standards in respect of their 2008 and 2009 model year motorcycles.

- i. As required in subparagraph 32.7(2)(b)(i) of the Regulations, *<insert Company Name>* hereby states that each motorcycle of the subfleet of motorcycles that conforms to family emission limits for fuel tank permeation meets all the criteria set out in paragraph 32.2(3)(a) of the Regulations;

Explanatory note: The following statement would also apply in the case where each motorcycle of the company’s subfleet conforms to a family emission limit for fuel tank permeation that is below the applicable emission standard set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) of the Regulations.

- ii. As required in subparagraph 32.7(2)(b)(ii) of the Regulations, *<insert Company Name>* hereby states that the subfleet for fuel tank permeation emission contains motorcycles that do not meet all of the criteria set out in paragraph 32.2(3)(a), but the **subfleet** conforms to the emissions averaging requirements set out in paragraph 32.2(3)(b) for fuel tank permeation emission; or
- iii. As required in subparagraph 32.7(2)(b)(ii) of the Regulations, *<insert Company Name>* hereby states that the subfleet for fuel tank permeation emission contains motorcycles that do not meet all of the criteria set out in paragraph 32.2(3)(a), but the **group** of motorcycles that do not meet the criteria set out in paragraph 32.2(3)(a) conforms to the emissions averaging requirements set out in paragraph 32.2(3)(b) for fuel tank permeation emission.

3) Calculation of the average fuel tank permeation emission value for the subfleet of Class I, Class II and Class III motorcycles

Explanatory note: Pursuant to section 32.3 of the Regulations, a company is required to calculate an average fuel tank permeation emission value if its subfleet of Class I, Class II and Class III motorcycles contains one or more motorcycles that conform to a family emission limit that is greater than the applicable emission standard set out in the section of the Code of Federal Regulations that is referred to in paragraph 17(a) or section 17.1 of the Regulations. In this section, the company calculates the average emission value for its subfleet of Class I, Class II and Class III motorcycles that conform to family emission limits for fuel tank permeation and provides information that is relevant to this calculation by completing the table. Information in column 4 applies to the engine family only. The subfleet average emission value must be rounded to one decimal place.

Engine family	Model	Class	Engine family meets all of the criteria in paragraph 32.2(3)(a) of the Regulations? (Y/N)	Fuel tank permeation FEL for engine family or [1] (g/m ² /d)	Useful life for engine family or [2] (km)	Number of motorcycles or [3] (Vehicles)	Average internal surface area of fuel tanks or [4] (m ²)	Numerator of equation [2] or [5] = "1 x 2 x 3 x 4 x 365.24" (Vehicle-g-km/d)	Denominator of equation [2] or [6] = "2 x 3 x 4 x 365.24" (Vehicle-km-m ²)
TOTALS (sums):									
Average fuel tank permeation emission value (or [7] = $\sum 5/\sum 6$) (g/m²/d):									

4) Average fuel tank permeation emission value for the group of Class I, Class II and Class III motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a)

Explanatory note: In this section, a company reports the average fuel tank permeation emission value for the group of motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a) of the Regulations if the company has made statement 2)iii of this part.

Based on the information provided in section 3 of this part, the average fuel tank permeation emission value of the group of Class I, Class II and Class III motorcycles that do not meet all the criteria set out in paragraph 32.2(3)(a) of the Regulations is: _____ g/m²/day.

Part IV
Information for Companies Manufacturing or
Importing a “Small Volume” of Motorcycles

Explanatory note: This section applies to any company that manufactures or imports fewer than 200 motorcycles for sale in Canada per year, has fewer than 500 employees worldwide, and avails itself of one or more of the exemptions under section 17.1 of the Regulations. A company would provide the information set out in subsection 32.7(5) of the Regulations as suggested below.

1) Company information

Number of employees of the company worldwide: _____

2) Motorcycle information

Class of motorcycle	Number of motorcycles manufactured or imported for sale in Canada in the current model year	Number of motorcycles manufactured or imported under exemption for exhaust emission standards	Number of motorcycles manufactured or imported under exemption for evaporative emission standards
Class IA		N/A	
Class IB		N/A	
Class II		N/A	
Class III			
TOTAL			

Appendix C

Form for Electronic Submission of Data

Explanatory note: In lieu of using the tables provided as examples in Appendix B for the calculation of subfleet average values, credits and deficits, a company may wish to use the sample forms developed by Environment Canada for the calculation and electronic submission of data. The forms are meant to facilitate the electronic entry and processing of data by companies, but does not absolve a company from providing the various statements and values required under the Regulations.

To obtain a copy of the sample forms, please contact one of the individuals listed under “Contact Information” for the On-Road Vehicle and Engine Emission Regulations at:

<http://www.ec.gc.ca/CEPAREgistry/regulations/detailReg.cfm?intReg=65>