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May 15, 2006

Clerk of the Borad
California Air Resources Board
1001 I Street, 23rd Floor
Sacramento, CA 95814

Dear Sir :

RE : Nissan's Comment on Rulemaking to Consider Adoption of New Emission Standards, Fleet Requirements, and Test Procedures for Forklifts and other Industrial Equipment posted on March 1, 2006.

We are pleased to submit Nissan's comment as attached.
For your reference, we have submitted following comments since CARB Clean Air Plan was announced.

Letter	84Z-1-C004 to Ms. Cynthia Marvin	dated June 15, 2001
Letter	84Z-3-C007 to Ms. Cynthia Marvin	dated March 11, 2003
Letter	84Y-3-C011 to Ms. Cynthia Marvin	dated June 13, 2003
Letter	84Y-3-C055 to Clerk of the Board	dated September 30, 2003
E-mail to Ms. Analisa Bevan		dated October 31, 2003
Letter	84Y-4-C007 to Ms. Analisa Bevan	dated June 15, 2004
Letter	84Y-4-C034 to Mr. Jack Kitowski	dated December 22, 2004
Letter	84Y-5-C035 to Clerk of the Board	dated June 22, 2005

Nissan's Comment on Emission Standards and Test Procedures for New 2007 and Later Off-road Large Spark Ignition (LSI) Engines and Fleet Requirements for Users of Off-road LSI Engines

This comment is the response to CARB's proposal for the public hearing on May 25, 2006. Nissan is an engine and equipment manufacturer. So, this comment is focused on the proposal for engine manufacturers. Overall Nissan's opinion is consistent with the previous comment submitted on June 2005.

Background

As a company policy, Nissan Motor Co., Ltd. (Nissan) always regards improvement of air quality and environmental issue as the first priority and puts this policy into practice positively. So Nissan continuously introduces environmentally friendly products. With regard to both 2001MY and 2004MY regulation of California off-road LSI engine, Nissan is the first company to get a certification approval. These facts are the example of the realization of Nissan's environmental policy. Therefore Nissan would like to cooperate with CARB and contribute to improvement of air quality. While Nissan would not change this policy, Nissan also thinks the regulation must be the rational one that economic and social impact is considered. Since retail price and maintenance cost for industrial use products are very influential on economy and society, the economic and social impact must be considered in the regulation. Based on this policy, Nissan has submitted our comments for California Implementation Plan several times. The latest version is the one submitted on June 22. 2005. In that letter, Nissan commented as follows.

(1) Nissan supported complete harmonization with EPA Tier 2 standard starting in 2007.

(2) The revision of mandate time for manufacturer lower emission standard from 2009MY to 2010MY is appreciated, but it is still challenging for a part of valiations.

(3) Nissan supported fleet average requirement concept.

(4) To eliminate electric forklift mandate is appreciated. The measures to achieve fleet average requirement should not be enforced.

(5) Simplification of certification procedure is desirable for popularization of the measures, especially for retrofit kits.

(6) Flexibility for both fleet owners and manufacturers is very important.

(7) LPG quality should also be improved.

(8) Political approach such as tax reduction will be very effective and desirable.

Nissan's Comment

Nissan's stance is consistent with those written above. But limited to our highest concerns, Nissan would like to express our opinion once again.

1. Manufacturer Lower Emission Standard from 2010

Nissan agrees most of engine families can technologically meet this standard, but the following concerns still remain.

(1-1) Cleaner Propane (LPG) Fuel Property

In the CARB/ITA meeting held on May 2004, CARB promised consideration of LPG fuel quality, but it seems this issue is not considered in the proposal. For the improvement of real world air quality, emissions in the real world are very important. That is the reason why improvement of fuel quality has been done several times both for gasoline and diesel on automobile side. However, LPG fuel quality has not yet improved state or nation wide. While LPG is very rare fuel for automobile, it is the most popular for forklifts. So, Nissan thinks improvement of LPG fuel quality is very important. Especially Nissan would like to ask to improve two specifications. First one is sulfur content. It is well known on automobile side that sulfur in fuel is very influential on catalyst performance. So, reduction of sulfur in LPG fuel is very effective for improvement of the real world air quality. Attached test result is one of examples carried out by Nissan. Only reduction of sulfur content makes emissions much cleaner. The other one is tar contamination. Many engine and equipment manufacturers are now suffering from poor LPG quality, as ITA always points out. As most radical case it was reported that several spoons of tar were observed only after hundred hours operation. Since recent sophisticated system is very sensitive, influence of tar contamination on the system is very critical. Nissan strongly ask CARB to consider this issue.

(1-2) Special Treatment for Small Volume Engines

Harmonization is a good concept to concentrate manufacturers development resources on environmentaly friendly equipment. But by this standard, harmonization ends in 2009MY. So, manufacturers will need measures to recover their resources. One of them, Nissan thinks, is special treatment for an engine family with small volume sales. In response to customers' demand, manufacturers sometimes adds an engine family with very small volume. In that case, it is very difficult for manufacturers to recover their development cost by equipments price-up. CARB should consider special treatment for an engine family with small volume sales.

2. Harmonization

CARB's harmonization concept is very much appreciated, but several differences still remain. If harmonization is not realized completely, merit for manufacturers is very much reduced. Especially, the following items should be reconsidered.

(2-1) Format of certification documents should be harmonized.

(2-2) Test fuel should be harmonized. Generally, California gasoline is cleaner. So, CARB should approve Federal certification gasoline without any demonstration.

(2-3) CARB should approve the alternative test procedure written in 40 CFR 1065.10 without any demonstration, if U.S. EPA approves it.

(2-4) In the section 2433 (Emission Standards and Test Procedures) of Proposed Regulation Order, Part 1, emission standards from 2007 to 2009 in the table show 2.7 g/kW-hr of HC+NOx and 20.8 g/kW-hr

of CO. According to the U.S. EPA's description, CO is 4.4 g/kW-hr at 2.7 g/kW-hr of HC+NOx. Also, U.S. EPA prohibits CO emission higher than 20.6 g/kW-hr, while CARB describes 20.8 g/kW-hr of CO as a standard. CARB should harmonize with EPA up to the detail.

(2-5) In the section 2433 (Emission Standards and Test Procedures) of Proposed Regulation Order, Part 1, the alternative certification standard which is indicated by the formula : (HC+NOx) x (CO)**0.784 = 8.57, is not shown. This should be allowed and should be added in the section 2433.

(2-6) In the section 2433 (Emission Standards and Test Procedures) of Proposed Regulation Order, Part 1, field test requirement is not shown. Nissan believes there is no field test requirement. CARB should clarify this.

(2-7) CARB's optional emission standards are different from U.S. EPA's Blue Sky standards. Currently U.S. EPA is proposing 5 levels of the Blue Sky standards. Fundamentally, both are set as a voluntary lower emission standards and basic concept must be same. So, CARB's optional emission standards and U.S. EPA's Blue Sky standards should be harmonized. If different, it will be very difficult for manufacturers to develop systems for both standards.

(2-8) The unit is not consistent with that of U.S. EPA. While U.S. EPA uses g/kW-hr, CARB uses g/bhp-hr. Emission standards are written in an engine label. So, this inconsistency may cause customers confusion. CARB should harmonize with EPA up to the detail.

(2-9) In the section 2433 (Emission Standards and Test Procedures) of Proposed Regulation Order, Part 1, evaporative emission standards is described, but it is not clear whether design standard application is allowed. For actual evaporative emission tests, special facility is needed, but currently there is no evaporative emission test facility for LSI engine equipments in the world. So, Nissan is now getting approval of design standard application from U.S. EPA. CARB should also allow manufacturers design standard application. And if manufacturers get U.S. EPA's approval first, CARB should accept it without any condition.

(2-10) In the section 2433 (Emission Standards and Test Procedures) of Proposed Regulation Order, Part 1, OBD requirement does not appear. Nissan thinks OBD requirement should be just same as the U.S. EPA. CARB should clarify this.

(2-11) Current regulation plan shows harmonization will end in 2009MY due to the CARB's more stringent regulation started in 2010MY. CARB should discuss with U.S. EPA and consider re-harmonization.

That's all of Nissan's written comment on Emission Standards and Test Procedures for New 2007 and Later Off-road Large Spark Ignition (LSI) Engines and Fleet Requirements for Users of Off-road LSI Engines CARB State Implementation Plan for Off-Road LSI Engines. For each other's better communication, it is very much appreciated if we have a chance to meet CARB and discuss more closely about this issue.

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If you have any questions or require additional information, please contact Kazuo Kojima or James Waters at following E-mail address.

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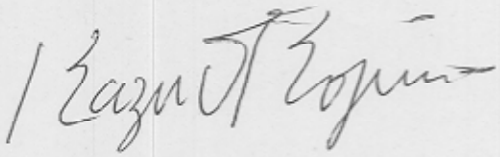
Very truly yours,



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