UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
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OFFICE OF
AIR AND RADIATION

October 19, 2012

CD-12-15 (NRCI, NRSI, Marine CI other than C3, Rec Vehicles)

SUBJECT: Nitrous Oxide (N_2O) Reporting for Model Years 2013 through 2016

Dear Manufacturer:

This guidance addresses N_2O reporting for the above industries through the 2016 model year as required for mobile sources by the Mandatory Greenhouse Gas Reporting Rule, see 74 FR 75260 (October 30, 2009). EPA may continue to accept measured N_2O, or other information/data with Administrator approval, including the information/data presented in the enclosures to this letter.

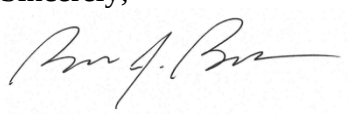
The goal of data collection for mobile sources under the reporting rule is to establish a consistent, verified, national data set available for use in developing and implementing future GHG policies and reduction programs. Since mobile source provisions were promulgated in October 2009, the N_2O measurement requirement has been delayed for the light duty vehicle industry largely due to difficulties in evaluating, implementing, and verifying the accuracy and repeatability of N_2O emissions measurement (40 CFR § 86.1829-01(b)(1)(iii)(G)). This guidance letter aligns the implementation timing of N_2O measurement requirements across the above industries with the light duty vehicle industry.

The GHG reporting rule mobile source requirements allow manufacturers to omit N_2O measurement for an engine family if other information and/or data are provided (40 CFR § 1065.5(a)(3)). The intent of this guidance letter is both to align N_2O measurement requirement across the above industries with the requirements for light duty vehicles through 2016 and to broadly disseminate data that may be used in lieu of measuring N_2O if said data is applicable to a particular engine family.

The enclosures to this letter include N_2O test data submitted to the EPA by manufacturers and manufacturer associations for the purposes of complying with the mobile source requirements of the reporting rule. EPA believes that this data is accurate generally for the engine types listed, though particular engines within each type will vary. This data may be used by manufacturers in lieu of N_2O testing, with appropriate justification provided by the manufacturer and with prior Administrator approval. EPA will continue to review manufacturer's data submissions at the time of certification. As N_2O measurement technologies develop, EPA will consider whether this data remains applicable and representative of N_2O emission performance for the specified industries. This guidance is applicable only through the 2016 model year.

If you have any questions about this guidance/letter, please contact your certification representative.

Sincerely,



Byron J. Bunker, Acting Director
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Office of Transportation and Air Quality

Enclosures

Enclosure 1
CD-12-15

Heavy Duty Diesel Engines		
Rated Power (kW)	**CO_2 (g/kWhr)**	**N_2O (g/kWhr)**
283	418	0.026
283	436	0.024
287	514	0.033
287	530	0.022
336	503	0.021
339	448	0.039
360	394	0.084
373	424	0.058
418	418	0.032
447	422	0.033
268	417	0.027
336	476	0.013
447	458	0

Enclosure 2
CD-12-15

On Road and Off Road Vehicles, Motorcycles, All Terrain Vehicles, and Utility Vehicles				
Rated Power (kW)	**Engine Displacement (cc)**	**CO_2 (g/km)**	**N_2O (g/km)**	**Emissions Control**
1.4	49.4	57	0.001	TWC, single bed, open loop
2.1	49	41	0.029	TWC, single bed, open loop
2.3	49.5	54	0.035	TWC, single bed, open loop
2.8	49	41	0.001	Three Way Catalyst (TWC), single-bed, closed-loop warm up
2.8	49.4	48	0.017	TWC, single bed, open loop
4.9	49.3	68	0.03	TWC, single bed, open loop
5.8	125	45	0.028	TWC, single bed, open loop
6.2	150	51	0.012	TWC, single bed, open loop
8.7	150	70	0.003	Three Way Catalyst (TWC), single-bed, closed-loop warm up
10.0	153	52	0.001	Three Way Catalyst (TWC), single-bed, closed-loop warm up
11	171.2	74	0.016	TWC, single bed, open loop
14	244-276	88	0.012	TWC, single bed, open loop
15.8	278	77	0.002	Three Way Catalyst (TWC), single-bed, closed-loop warm up
20.3	499	72	0.018	TWC, single bed, open loop
33.5	695	206	0.011	TWC, single bed, open loop
37	652	138	0.004	TWC, double-bed, closed-loop/warm-up
44	647	111	0.004	Three Way Catalyst (TWC), single-bed, closed-loop warm up
61.1	1462	129	0.014	Three Way Catalyst (TWC), single-bed, closed-loop warm up
115	1688-1996	174	0.063	Three Way Catalyst (TWC), single-bed, closed-loop warm up
100	1215	161	0.001	TWC, single-bed, electric warm-up
135	1199	166	0.002	Three Way Catalyst (TWC), single-bed, closed-loop warm up