

ILLINOIS POLLUTION CONTROL BOARD
May 21, 1992

IN THE MATTER OF:)
)
JOINT PETITION OF DETROIT) AS 92-4
DIESEL CORPORATION, NAVISTAR) (Adjusted Standard
INTERNATIONAL TRANSPORTATION)
CORPORATION, CUMMINS ENGINE)
COMPANY AND THE ENGINE)
MANUFACTURERS ASSOCIATION)
FOR ADJUSTED STANDARD FROM)
35 ILL. ADM. CODE 240.141)

ORDER OF THE BOARD (by J. Anderson):

On May 4, 1992 Detroit Diesel Corporation (DDC), Navistar International Transportation Corporation, (Navistar), Cummins Engine Company (Cummins), and the Engine Manufacturers Association (EMA) filed a petition for adjusted standard pursuant to 35 Ill. Adm. Code 106.Subpart G seeking opacity standards alternative to those of Section 240.141 for certain classes of heavy duty diesel engines. On May 12, 1992, petitioners filed the proof of publication required by 35 Ill. Adm. Code 106.712.

This petition generally meets the information requirements of 35 Ill. Adm. Code 240.141(d), and is accordingly accepted for hearing as requested by petitioners. To facilitate the Board's prompt determination of the merits of this petition, the parties are directed to address the following issues and questions at hearing:

1. DDC is requested to provide a copy of the California opacity standard and the exemption from it granted by the California Air Resources Board (CARB), as well as any rationale for the exemption given by CARB.
2. Navistar and Cummins are directed to explain:
 - a. How many engine families are manufactured by each company? What percentage of engine families (to total produced by any company) are represented in this petition? Approximately how many vehicles represented in this petition are in service?
 - b. How do these engine families differ from other engine families manufactured by your company or other companies, such that an adjusted standard is required for compliance?
 - c. How can an enforcement authority distinguish between an properly maintained engine from a

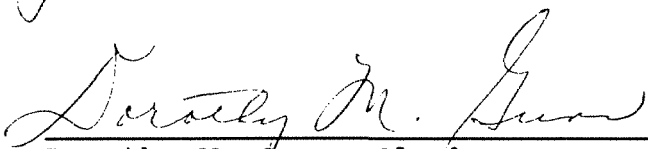
malmaintained engine from the same family with an adjusted standard? Will the malmaintained engine always exceed the adjusted standard opacity level?

- d. What specific adjustments must be made to ensure compliance with the generally applicable standard? What is the cost per engine?
- e. Several times in the petition, a "deterioration factor (DF)" was applied to calculate the adjusted standard. Please provide a description of what this factor represents and the method by which it is determined or calculated.
- f. A quality control factor of 2 standard deviations was added to the snap idle estimate to calculate the adjusted standard. How and why was this factor chosen?
- g. The petition requests adjusted standards that reflect a 2% error of commission (only 2% of properly maintained and certified vehicles will fail the snap idle test). Please estimate the percent error of omission (the percentage of vehicles that are not properly maintained or certified that will pass the snap idle test) that will come about due to these adjusted standards.
- h. Please describe the requirements of the FTP. How many engines in each family are tested? Are quality control factors such as 2*SD and a deterioration factor applied when certification is assessed? What is the error of commission of the FTP?
- i. Where is the engine identification number located?
- j. If the snap-idle testing conditions are not encountered under normal driving conditions, is such a test an adequate measure of the peak smoke opacity emitted? If not, why was this information not provided during the R90-20 proceedings?
- k. In this adjusted standard, specific engine families or classes are targeted based on the testing that has been carried out. Will additional testing reveal that there are other classes or engine families that might also fail the Board's snap-idle opacity standard and require adjusted standards?

1. The reasoning provided in DDC's petition is the failure of the electronic emission control software to account for the rapid acceleration in a snap-idle test. What is the believed reasoning for the failure of the engines included in Navistar's and Cummins' adjusted standard?
- m. Several terms are used in the petition which are used in the setting of the adjusted standard. Please define or provide clear explanations of the following terms:
 - 1) EPA FTP integrated smoke "C" values
 - 2) EPA FTP strip chart peak
 - 3) Critical parts lists
3. The parties, particularly the Agency, are directed to address the question as to whether there is any nexus at all between the SIP requirements and the diesel exhaust opacity standards, particularly in relation to PM10.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above order was adopted on the 21st day of May, 1992, by a vote of 7-0.



 Dorothy M. Gunn, Clerk
 Illinois Pollution Control Board