

August 31, 2005

Mark A. Prettyman  
Delaware Department of Natural Resources and Environmental Control  
Air Quality Management Section  
156 South State Street  
Dover, DE 19901

Dear Mr. Prettyman:

DuPont Company appreciates the opportunity to submit the following comments relative to DNREC's proposed new regulation, "Control of Stationary Generator Emissions", Regulation No. 1144. This regulation affects operators of stationary IC generators, both new and existing, and even emergency units. DuPont believes that this regulation will cause financial hardship on small businesses, commercial and institutional facilities, as well as R&D facilities that operate electrical generators and, by this regulation, are required to burn more expensive low-sulfur fuels, install high cost emissions controls that may or may not be able to achieve the proposed emission limits, perform expensive source emission testing, and comply with extensive record-keeping and reporting requirements.

### **Specific Comments**

#### **A. Proposed Applicability and Emission Limits**

The proposed regulation is applicable to all stationary generators, both new and existing, with no lower size applicability limit (de minimis). The emission limits also do not differentiate among unit vintage or capacity. The extremely low emission limits combined with the lack of emission limit differentiation based on age and capacity will impose unattainable and unjustified limitations on sources, essentially eliminating the ability to use stationary generators in any manner other than as emergency generators. This approach is contrary to existing EPA standards as well as the proposed NSPS for Stationary Compression Ignition Internal Combustion Engines (70 Fed. Reg. 39869, 40 CFR Parts 60, 85, 89, July 11, 2005). The referenced proposed NSPS (70 Fed. Reg. 39895, 40 CFR 60.4201) references emission standards for new nonroad CI engines in 40 CFR 89.112 et al. Regulation 40 CFR 89.112 provides emission limits that vary with unit age as well as capacity. In addition, example emission limits in that regulation include NO<sub>x</sub> at 9.2 g/KWh for units of vintage 1996-2000 (depending on capacity), combined NMVOC/NO<sub>x</sub> emission limits of 4.0-10.5 g/KWh for newer units (depending on capacity), and CO limits varying from 3.5 for new large units to 11.4 g/KWh for older units. These limits can be compared to the Proposed Regulation No.1144 equivalent limits of 1.82 g/KWh for NO<sub>x</sub>, 0.86 g/KWh for NMVOC, and 4.5 g/KWh for CO for existing distributed generators regardless of age or capacity, and lower emission limits for new sources. This comparison shows that the Regulation No.1144 limits are much more stringent than deemed appropriate by the EPA for both existing and new units. Should this regulation proceed, the emission limits should be modified to more reasonably attainable levels with recognition of the capabilities of controlling smaller and older units.

There is no apparent logic for the proposed emission limits relative to the recently established EPA limits, and these proposed limits appear in many cases to be both technically and economically unattainable. Therefore, promulgation of this regulation as proposed would result in potential defacto elimination of the ability to use stationary generators. This result must be

evaluated and justified by DNREC due to its significant economic impact on the regulated community, especially small businesses and R&D facilities. Stationary generators provide valuable service not only to the owners/operators of the units, but also to the general public. Stationary generators allow reduction of purchased power during periods of high demand and resulting high price for power. This allows the owner/operator to achieve reduced purchased power cost and thereby improved bottom line and competitiveness. In addition, use of those stationary generators provides reduction in demand during those periods on strained central generation units and transmission/distribution systems through distributed generation. This distributed generation reduces strain on those systems and can reduce the potential for brownouts, blackouts, or rolling blackouts. This feature provides a significant return when electricity supply interruptions are avoided. Reducing the ability to provide that electricity system reliability by imposing excessive emission limits imposes a severe potential cost and health impact on all residents of the state should electricity be interrupted. That potential disbenefit needs to be included in the analysis and justification for establishing this regulation.

#### B. Inclusion of CO2 Emission Limits

DuPont also strongly disagrees with the precedent-setting inclusion of carbon dioxide (CO2) as a regulated pollutant as part of the emission standards proposed in this regulation. CO2 is not a criteria pollutant and, contrary to the stated purpose of this regulation, has no impact on Delaware's non-attainment status for ozone or PM fine. DuPont supports voluntary greenhouse gas emission reductions and energy conservation, but does not support mandatory emission performance standards for CO2 that cannot have any impact on a global issue such as this. Besides the financial burden of having to emission test for CO2 and certify compliance with the 1900 lbs/MWh performance standard, there is no control option available to reduce CO2 should a source determine that its generator does not meet the standard. The only option for a facility in this predicament is to purchase a new generator that hopefully will pass the CO2 performance test.

DNREC's decision to regulate carbon dioxide must be based on a determination that CO2 emissions contribute to air pollution and pose a threat to the public health, safety, and welfare of Delaware citizens. The recent determination by federal U.S. EPA that it lacks authority to regulate CO2 for the purposes of addressing global climate change and EPA's findings on the uncertainties of CO2's impact on public health and the environment make this task enormously difficult for DNREC to prove the contrary.

DuPont strongly recommends that DNREC delete the carbon dioxide performance standard contained in this proposed regulation, since it cannot exert any impact on global climate change, does not impact the stated goal, and does not contribute to Delaware's existing non-attainment air quality problems.

#### C. Gaseous Fuel Requirements

Paragraph 5.2 of the proposed regulation requires no more than ten grains total sulfur per 100 dry standard cubic feet. This provision should be revised to exempt units firing pipeline quality natural gas. Generator owners/operators have no control over the sulfur level of pipeline quality natural gas. This provision should only apply for gaseous fuels other than pipeline quality natural gas.

In addition, waste, landfill, or digester gases are required to contain less than 1.5 grains of hydrogen sulfide per 100 dscf or 30 grains total sulfur compounds per 100 dscf. The levels of sulfur in these gases can vary considerably depending on specific conditions, especially landfill gas. Use of IC engine generators is one of the primary methods of constructive use of these gases. Existing government incentives are in place to spur increased use of those energy

resources to displace the use of conventional fossil fuels. Any emission limits should be established with flexibility to allow constructive use of these nonfossil energy sources without requiring expensive gas cleanup systems prior to combustion.

#### D. Non-Emitting Resources

Paragraph 8.3 provides for incorporation of generation from non-emitting resources at the location where the generator is installed for purposes of calculating compliance with the requirements of this regulation. This type of provision could drive installation of renewable generation in locations that are non-optimum for those technologies. Renewable energy technologies are well known to be very sensitive to local conditions, e.g., wind and solar power. The high cost and inherent low capacity factor for those technologies even in good locations is low. Efforts should focus on installation of those resources in locations that can enhance their output rather than on locations that are procedurally expedient.

Please contact me with any questions or if you desire to discuss these comments.

Sincerely,

Paul R. Jann

Air Quality Consultant  
DuPont Engineering and Technology Section  
1007 Market Street  
Wilmington, DE 19898  
(302) 774-8043