MEMORANDUM

May 7, 2004

TO: DARRIN DROLLINGER
   NICK YAKSICH
   RUSS HUTCHISON
   Association of Equipment Manufacturers

FROM: WILLIAM M. GUERRY, JR.

RE: NEW EPA EMISSION REGULATIONS FOR SMALL SPARK-IGNITED ENGINES

Pursuant to a recent amendment to the federal Clean Air Act, the U.S. Environmental Protection Agency (EPA) should propose this year stringent new engine exhaust and evaporative emission regulations for industrial/construction, agricultural and other equipment powered by spark-ignited engines less than 19 kW in displacement. (These new more stringent regulations will also apply to most “mid-size” spark-ignition engines less than 1 liter in total displacement and below 30 kW.) Through my longstanding representation of the Outdoor Power Equipment Institute (OPEI) (whose members manufacture lawn and garden equipment), I have been in close contact with the U.S. EPA on these new regulations.

In order to determine the “maximum emission reductions which can be achieved technologically”, EPA will soon be comprehensively evaluating the full spectrum of exhaust and evaporative controls (such as carbon canisters, bladders, pressurized tanks, metal fuel tanks, various permeation coatings, etc.) through an independent and thorough assessment. For exhaust emissions controls, EPA will also evaluate (at least for certain products) the technical availability of sophisticated, “high-end,” automotive-type, catalyzed exhaust systems – which would likely require substantial adjustments to the carburetor. For example, EPA concluded (roughly 18 months ago) that automotive type, three-way catalytic converters and electronically controlled fuel systems were appropriate for large spark-ignited engines (LSI) (greater than 19 kW). Obviously, the application of these expensive automotive-type exhaust systems would impose enormous practical, installation and operational problems for industrial/construction equipment in addition to the substantial compliance costs and certification burdens.
This month, EPA plans on completing its private meetings with the affected small-engine manufacturers and hopes to ultimately develop an improved engine test procedure based in part on these discussions. To get a better understanding of the technological (and particularly the heat/safety challenges with applying catalysts), EPA plans to meet privately in June with industrial/construction equipment manufacturers. (EPA would welcome suggested safety and engineering contacts at industrial/construction equipment manufacturers.) EPA is also very interested in: (1) how small manufacturers could be adversely impacted by the proposed regulations; and (2) suggested flexibilities to mitigate such adverse impacts. EPA has requested for all equipment manufacturers to be prepared to explain: (a) how OEMs currently design exhaust muffler systems with heat shields, air flow, etc. to dissipate and to address heat; (b) how OEMs currently test/evaluate heat from exhaust systems to ensure that products are safe in anticipated use conditions; (c) what objective heat criteria are applied and how they are applied in making these safety evaluations; (d) how would OEMs be impacted if they could only use a limited number of “generic” catalyzed muffler systems exclusively supplied by their engine suppliers; (e) alternatively, how would OEMs separately install catalysts (pursuant to their engine suppliers’ specifications) to ensure “customized” exhaust systems worked effectively and safely; and (f) what additional resources and lead time would be required for OEMs to design, test and install “customized” catalyzed exhaust systems.

EPA is interested in meeting with AEM, the Outdoor Power Equipment Institute (OPEI) and the Engine Manufacturers Association (EMA) staff and members in June to discuss EPA’s immediate data needs and EPA’s regulatory development process. AEM and a select group of members are invited and should attend the portion of a June 3rd OPEI/EMA technical meeting in Alexandria, Virginia regarding the EPA Phase III regulations. Hopefully, OEMs will become better informed at this internal industry meeting prior to any private discussions with EPA.