John J. Mooney President Environmental and Energy Technology and Policy Institute

Formerly,

Technical Director, Auto Exhaust Catalyst project;

and,

Director, Technology Development & Business Programs

Engelhard Corporation, Environmental Technologies Group

BS in Chemistry, Seton Hall University – 1955 MS in Chemical Engineering, Newark College of Engineering, - 1960

MBA in Marketing, Fairleigh Dickenson University – 1991

Environmental and Energy Technology and Policy Institute

President and co-founder. August 2002.

Engelhard Corporation – 43 years.

36 years in R&D, marketing and sales of the catalytic converters for automobiles, light and heavy-duty trucks (on and off-road), motorcycles, water craft and small engines used for chainsaws and lawn and garden equipment.

Played a key role in global expansion of the Engelhard auto catalyst project by convincing authorities of the need for unleaded gasoline and strict exhaust emission standards – these included Japan, Korea, Europe, Australia, Canada and Brazil and more recently China, India, Southeast Asian counties and Africa.

Served on the Manufacturers of Emission Control Association (MECA) Board of Directors from 1984 through 2003 and was President from 1998 through 2002. MECA provided technical information on emission control technology to the United States Environmental Protection Agency, the California Air Resources Board, State agencies and foreign governments providing support for stringent mobile source emission control regulations, standards and for clean low sulfur gasoline and diesel fuels specifications.

<u>15 US Patents</u>. Co-inventor of the three-way catalyst (TWC) which is now used by all gasoline fueled passenger cars and light duty vehicles in North America, Europe, Japan and other industrial countries.

Over 70 Publications.

Professional Recognition:

- ➤ Fellow Society of Automotive Engineers (SAE) -1989 first SAE recognition of exhaust emission control
- American Institute of Chemical Engineers Award for Innovation. Arthur Dehon Little Award of 1999

- ➤ Laureate Walter Ahlstrom Prize 2001 Awarded by Finnish Academies of Technology.
 - Received (along with Carl D. Keith) for invention and commercialization of the three-way catalytic converter. The Ahlstrom Prize is awarded in recognition of significant technological achievements which enable, or will enable, widely applicable industrial advances in the use of energy, in the utilization of raw materials, or in minimizing detrimental environmental impacts. The development may represent new breakthroughs in equipment design or improved processes. Primary consideration will be given to engineering achievements that have led to important benefits in industry to the well-being of society.
- ➤ Laureate National Medal of Technology 2002 (team award with Carl D. Keith). Presented by President George W. Bush at White House ceremony on November 6, 2003. For invention, commercialization of the three-way catalytic converter and world wide use on all automobiles.
- American Institute of Chemical Engineering, Life Time Achievement in International Chemical Engineering, Kazutoshi Fujimura Award, 2005.
- ➤ Others

Recent accomplishments:

- ➤ Developed a catalytic converter for small 2-stroke engines
- ➤ Convinced China and then India to 'switch' to 100% unleaded rather than 'phase-out' thereby quickly removing air borne lead from their atmosphere and providing the basis for mobile source emission control of automobiles, trucks and off-road vehicles and equipment for reduction of air pollution. This cost/effective approach is now taken by countries that adopt unleaded gasoline.
- ➤ Joined the Partnership for Clean Fuels and Vehicles created by the US EPA and the United Nations to bring clean fuels and vehicles to developing nations. Bring leaded gasoline to an end in the world is a first objective. Was assigned committee chair in this effort.
- ➤ Focus on diesel engine emission control especially (along with colleagues) on bringing into US national discussion the subjects of nanometer lung alveoli penetrating solid particles and minimizing NO₂ emissions

Other:

President, Manufacturers of Emission Controls Association (MECA), 1999 through 2002 and on the Board of Directors for 17 years.

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