Alliance OF AUTOMOBILE MANUFACTURERS

Honorable Marcus Conklin, Chair
Subcommittee, Regulations Review
Legislative Commission
Nevada Assembly
Carson City, Nevada 89701

June 29, 2010

Re: Proposed Repeal of Prohibition on use of MMT in fuels
NV State Board of Agriculture, LCB file No. R111-08

Dear Chairman Conklin:

The Alliance of Automobile Manufacturers is a trade association of 11 vehicle manufacturers (see www.autoalliance.org), including BMW Group, Chrysler Group LLC, Ford Motor Company, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota, and Volkswagen. We understand the Legislative Commission's Subcommittee for Regulations Review will be considering this matter on June 30, 2010.

The Alliance filed comments in April 2010, and in July 2009, explaining in detail the ongoing concerns our members share about metallic additives in fuel, and specific concerns about MMT. I am attaching copies of both those comments for your review, as they continue to articulate our current position. Automobile manufacturers have recommended against the use of manganese compounds for decades; most if not all, include cautionary statements in the owner's manual and will void certain warranties if the additive is used, so consumers will have a direct stake in the outcome of this proposal.

We urge the Legislative Commission to disapprove the action to repeal the prohibition of manganese-based gasoline additives in Nevada.

Sincerely,

Valerie Ughetta,
Director, Automotive Fuels
Alliance of Automobile Manufacturers
202 326 5549
Attachments (2)

Subcommittee to Review Regulations
Exhibit F pg 1 of 12 Date: 6-30-10
Submitted by: A. ALONZO

Alliance OF AUTOMOBILE MANUFACTURERS

April 19, 2010

The Honorable John Oceguera
Chair, Legislative Commission
7655 Chaumont Street
Las Vegas, NV 89123-1491

Re: Proposed Repeal of MMT Prohibition in Nevada (LCB File No R111-08)

Dear Chairman Oceguera:

On behalf of the Alliance of Automobile Manufacturers (Alliance), I am writing to ask you and the Legislative Commission to disapprove the recent decision by the NV State Board of Agriculture to repeal a long-standing ban on the use of MMT in gasoline sold in the State of Nevada.

The Alliance is an association of 11 vehicle manufacturers including BMW Group, Chrysler LLC, Ford Motor Company, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota and Volkswagen. Formed in 1999, the Alliance serves as a leading advocacy group for the automobile industry on a range of public policy issues and is especially committed to improving the environment and motor vehicle safety. For more information, please visit the Alliance website at www.autoalliance.org.

Automakers have long been concerned about this additive, which is marketed as an octane booster, and we are aware of no automaker that recommends or allows its use. Indeed, automakers from around the world endorse the Worldwide Fuel Charter, which recommends against the use of any metallic fuel additive, including but not limited to MMT. Allowing it in the marketplace is not in the best interests of either consumers or the environment.

Vehicles designed to meet very stringent emission standards such as those in the U.S. are especially vulnerable. MMT can increase emissions, reduce fuel economy and result in costly vehicle repairs. Indeed, refiners should not need to use the additive as an octane booster because ethanol being produced to meet the Renewable Fuel Standard is readily available and is providing the market with substantial additional octane at reasonable cost.

We have been thankful that most major oil companies in this country and in Canada have voluntarily refrained from using the chemical, which is why EPA has not seen a need to change its regulatory status. We also have appreciated that Nevada has recognized the need to protect vehicles. But automakers have seen problems in recent years with vehicles that used fuel containing MMT. A study of the fuel additives impacts in Canada

was recently released and may be found on our website, along with a real-world experimental study. Furthermore, some problems have been found in the southwestern U.S. We are attaching to this letter excerpts and illustrations from the Canadian study; one picture is of a plugged catalyst retrieved from the "Four Corners" area. This is one reason we are so concerned—repealing the state's ban may send a signal to some companies that marketing MMT in the state will now become acceptable.

For these reasons, we urge the Commission to disapprove the repeal of the MMT prohibition.

If you have any questions, please feel free to call me at (202) 326-5533.

Sincerely,

Ellen L Shapiro
Director, Automotive Fuels

Attachment

sierra research

Report No. SR2008-08-01

Impacts of MMT® Use in Unleaded Gasoline on Engines, Emission Control Systems, and Emissions

prepared for:

Canadian Vehicle Manufacturers' Association and Association of International Automobile Manufacturers of Canada

August 29, 2008

prepared by:

Sierra Research, Inc.
1801 J Street
Sacramento, California 95811
(916) 444-6666

Excerpts from the Executive Summary....

1. Plugging of catalysts due to manganese oxides on in-use vehicles can occur and has been documented at this point to be a substantial problem on a number of different models of in-use Canadian vehicles produced by a number of different manufacturers.

2. Vehicles with catalysts plugged by manganese oxides can have driveability problems due to excessive exhaust system backpressure. These problems can be corrected only by catalyst replacement.

3. Vehicles with catalysts plugged to a substantial degree by manganese oxides will generally experience MIL illumination and have fault codes stored indicating catalyst failure. The MIL can be extinguished and fault codes prevented from being stored only if the catalyst is replaced.

4. The plugging of catalysts by manganese oxides is most frequently observed on vehicles with advanced emissions controls systems that incorporate HDCC catalysts. Such vehicle designs are expected to become widespread as all new vehicles sold in the U.S. and Canada are required to comply with the requirements of the Tier 2/LEV II regulations.

5. Some advanced technology vehicles for which catalyst plugging due to MMT® has been demonstrated have also been shown to have, to varying degrees, increased tailpipe emissions of volatile organic compounds (VOC), CO, and NOx.

6. The rates of Canadian catalyst warranty replacement where MMT®-related plugging has been documented were significantly higher than the U.S. warranty rate for vehicles equipped with the same emissions control systems. The rate of increase in Canadian warranty rates slowed in direct response to the reduction in the use of MMT® in Canadian gasoline

7. There is no demonstrated method, other than eliminating MMT® from the fuel, to ensure that an emission control system that allows a vehicle to comply with the requirements of the Tier 2/LEV II regulations will not experience catalyst plugging caused by manganese oxides as well as one or more of the observed problems of degraded driveability, MIL illumination, and increased emissions.

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The following illustrations (with document page numbers shown above each, for reference) show the extremely harmful impacts of gasoline containing manganese on emission system components:

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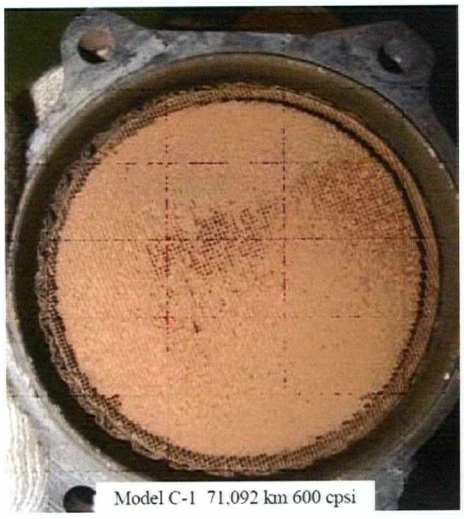

Model C-1 71,092 km 600 cpsi

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Figure 14: Engine-dynamometer testing – Component Pictures from Model D-1.

Spark Plug tip

Oxygen Sensor Exposed (metal sheath removed)

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Figure 16c Photographs of an Average Restriction (21 inches of water @ 100 g/s) Canadian Vehicle Inlet Element Inlet Face

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Figure 6 Picture of a catalyst sampled from the "Four Corners" area of the USA where MMT was sold in limited amounts

Catalyst from MMT-use Area in US

- From Model M-1
- One of the plugged catalysts retrieved from the Four-Corners area
- 85322 miles

Alliance OF AUTOMOBILE MANUFACTURERS

July 24, 2009

Nevada Department of Agriculture
350 Capitol Hill Avenue
Reno, NV 89502
Attn: William Striejewske

Via email to wstriejewske@agri.state.nv.us

RE: Proposed Amendment to NAC 590.065

Dear Mr. Striejewske:

I am writing on behalf of the Alliance of Automobile Manufacturers (Alliance) regarding the above proposed amendment to the state's gasoline regulation. The Alliance is a trade association of 11 vehicle manufacturers including BMW Group, Chrysler Group LLC, Ford Motor Company, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota and Volkswagen. For more information, visit the Alliance website at www.autoalliance.org.

Our comment today focuses on just one element of the above rulemaking, namely, the proposed repeal of the ban on adding manganese or manganese compounds to gasoline (*See* draft NAC 590.065, section 5(c)). We oppose this repeal and are very disappointed to see the state propose it. Virtually all automobile manufacturers recommend against using metallic additives in the fuel, and some specifically mention methylcyclopentadienyl manganese tricarbonyl (MMT), which is the only manganese additive currently being produced and sold.

Automobile manufacturers have recommended against the use of manganese compounds for decades; most, if not all, include cautionary statements in the owners' manual and will void certain warranties if the additive is used. Newer vehicles meeting stringent Tier 2 and California LEV II emission standards are particularly vulnerable to the effects of manganese additives. Their advanced emission control systems rely on catalysts with a high cell density, placement close to the engine and other design elements that make it more likely for manganese ash to settle on the catalyst front face, especially when the vehicle is operated at high speed or with aggressive driving.

A study of the additive's impacts in Canada was recently released and may be found on our website at www.autoalliance.org , along with another real-world study on the effects of this additive. We are attaching to this letter excerpts and illustrations from the Canadian study showing MMT's serious impacts; you will note that one picture is of a plugged catalyst retrieved from the "Four Corners" area in southwestern U.S.

Metallic additives such as MMT have been promoted as octane boosters for many years, but this rationale is no longer valid given the increased availability of ethanol, which is another octane booster. The ethanol being produced to meet the Renewable Fuel Standard is readily providing the market with substantial additional octane not previously available. This development makes it difficult to imagine a need for any metallic octane boosting additive.

We urge Nevada to retain the ban on manganese additives. If the state proceeds with the repeal, however, we strongly recommend requiring cautionary labels for fuel pumps that contain any fuel additized with this compound. Since manufacturers advise consumers against using the additive and warranty coverage may depend on consumer compliance with the recommendation, consumers need to know if the additive is in the fuel. Such a label should apply to any fuel sold at retail that contains the additive, including racing fuel, which is sometimes street legal and sold at retail. Racing fuel is more likely to contain MMT because it is intended for use in high performance engines. Except for the possibility of the fuel containing MMT, racing fuel is suitable for use in conventional vehicles.

In all cases where a fuel sold to the public contains manganese additives, we urge the state to require a label with strong, cautionary language similar to the following, using large, bold, easily seen and read letters:

CAUTION: CONTAINS MMT
Check Manufacturer Recommendations

We appreciate this opportunity to comment on the proposed regulation. Please feel free to contact me at 202-326-5533 or eshapiro@autoalliance.org if you have questions.

Sincerely,

Ellen L. Shapiro
Director, Automotive Fuels

Attachment

Excerpts from Recent Sierra Report on MMT Impacts

sierra research

Report No. SR2008-08-01

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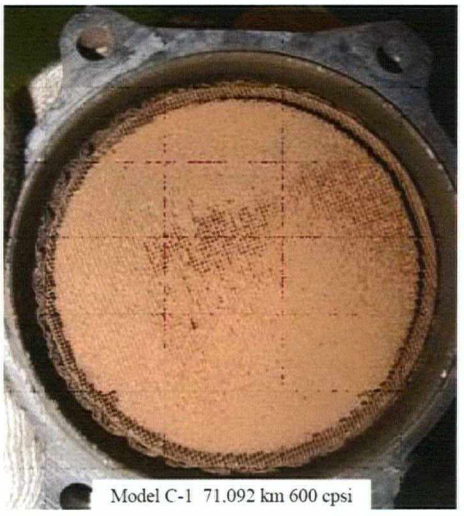

Model C-1 71,092 km 600 cpsi

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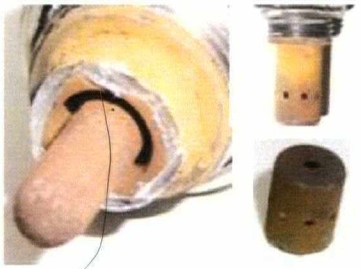
Figure 14: Engine-dynamometer testing – Component Pictures from Model D-1.

Spark Plug tip



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Catalyst from MMT-use Area in US

- From Model M-1
- One of the plugged catalysts retrieved from the Four-Corners area
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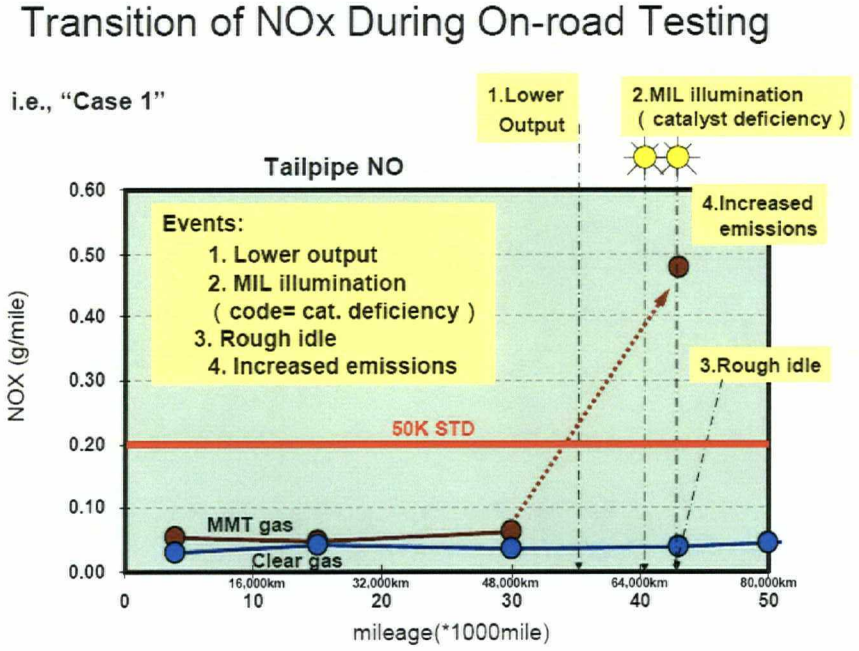
Figure 11c NOx Emissions vs. Mileage for Road Durability Testing of Model M-1



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