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USG 350-81-12 **Environmental Admittees Staff** General Motors Corporation General Motors Technical Center Warren, Michilgan 48090

June 3, 1981

Mr. Kenneth E. Feith Standards and Regulations Division (ANR-490) Office of Noise Abatement and Control U.S. Environmental Protection Agency Crystal Mall Building 1921 Jefferson Davis Highway Arlington, VA 22202

Dear Mr. Feith:

Noise Cost Data re Rescission of the January 1, 1983 80 dB Noise Emission Standard for Medium and Heavy Trucks

In response to your letter dated May 5, 1981, which was addressed to Mr. Donald H. McPherson, the following additional information is provided:

Cost of 80 dB Noise Regulation

In the General Motors comments dated April 21, 1981 (USG 350-81-9) we provided a figure of \$365 as the average price increase per truck to go from an 83 dB regulated level to an 80 dB level. This is a sales weighted average figure and in order to give EPA futher insight as to the economics of noise control, a further breakdown by truck type is provided.

| | Total Industry | | Diesel | | l Tilt | Total Truck Sales Seven Years* | |
|--------------|--|-------------|--------|--------------|--------|----------------------------------|--|
| | Seven Year Forecast Fleet Volume | 214 | 300 | 1,631 | 383 | 2,528 | |
| | | | | - (\$ Per Tr | ruck) | Average Truck Price Increase* | |
| | Initial Cost to Consumer | 50 | 300 | 415 | 400 | 365 | |
| Cer-hun drag | Lifetime Service | | | | | | |
| / | Requirements | <u> 105</u> | 1,575 | 1,105 | 2,100 | 1,225 | |
| i4: 52 | TOTAL | 155 | 1,875 | 1,520 | 2,500 | 1,590 | |
| X . | *Previously pro | vided to | ЕРА | | | | |

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The EPA has correctly assumed that not all trucks would require \$365 of hardware to achieve an 80 dB level. For gasoline powered medium duty trucks, which represent a small and diminishing segment of the affected fleet, a consumer cost of only \$50 would be required, primarily to add viscous clutch fans. However, for diesel powered trucks in all categories, various engine quicting techniques, such as thicker castings, sound baffles and special isolated oil pans and valve covers would be required as would heavy-duty dual exhaust systems and, in most cases, sound insulating shields for the engine and transmission. The costs for diesel vehicles range typically from \$300 to \$415. It should be noted that diesel-powered vehicles are increasing in sales.

Lifetime Service Costs

The cost of servicing these vehicles throughout their lifetimes would be increased by the necessity to remove and replace noise shields to access actual service points. Furthermore, the cost of replacement parts such as the heavy-duty dual exhaust systems and isolation gaskets would increase substantially from their present day counterparts. Actual United Parcel Service field experience with trucks incorporating similar noise reduction features supports these estimates of incremental service cost.

These estimates are based on technical requirements determined by actual prototype testing and subsequent production releases. We have previously provided EPA with a description of the technical requirements. Because the hardware definitions are based on actual test programs, we consider the requirements to be firm.

With regard to the EPA request for component noise levels before and after test, we regret that we are not in a position to provide this detailed information. Furthermore, we do not consider it germane to the question of cost of noise control.

We hope the above additional information will satisfy your requirement. If we can be of further assistance, please contact the undersigned.

Sincerely,

Paul P. Pataky

Assistant Staff Engineer International Regulations

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