



City of  
HAMILTON

Hamilton Fire Department

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August 16, 1994

COPY

Mr. George Zegarac, Manager  
Research and Technology Section  
Ontario Ministry of the Environment

Dear Sir:

Re: Ferrox Fuel Additive

Please be advised that the Hamilton Fire Department is not promoting or endorsing the subject product. We are however, stating factual information discovered through field evaluations. We estimate that the full results of this product will not be realized for a user period of two years within the fire service. However, based on the satisfactory results obtained to date, we have expectations that this product will prove successful in fulfilling its proclamation.

For several years, the Hamilton Fire Department has been considering many methods of dealing with diesel fumes and exhaust particulate in their fire stations. Everything from ceramic filters and dual exhaust systems to exhaust evacuation systems have been researched. Some methods appeared obviously more effective than others, however, all considered methods were similar in that they were costly to install and maintain. None of these systems were solving the air quality problem, but were merely venting the smoke and fumes to the atmosphere. After consulting with several fire departments around the Province and hearing some of the adverse results surrounding the different systems, it was decided that our investigation would continue.

A local company in Stoney Creek, Ontario, approached the Hamilton Fire Department with a unique proposition. Ferrox Canada delivered a very detailed report for scrutinization. Four Hamilton Fire Department vehicles were selected based on age and history of heavy smoke conditions. A nine-month trial period was conducted and monitored by Hamilton.

The Mechanical Division of the Hamilton Fire Department were the only personnel who ensured that the product was put into the fuel dispensing system. After the nine-month trial period, the subject vehicles were tested at Mohawk College in Hamilton. Two, six-gas



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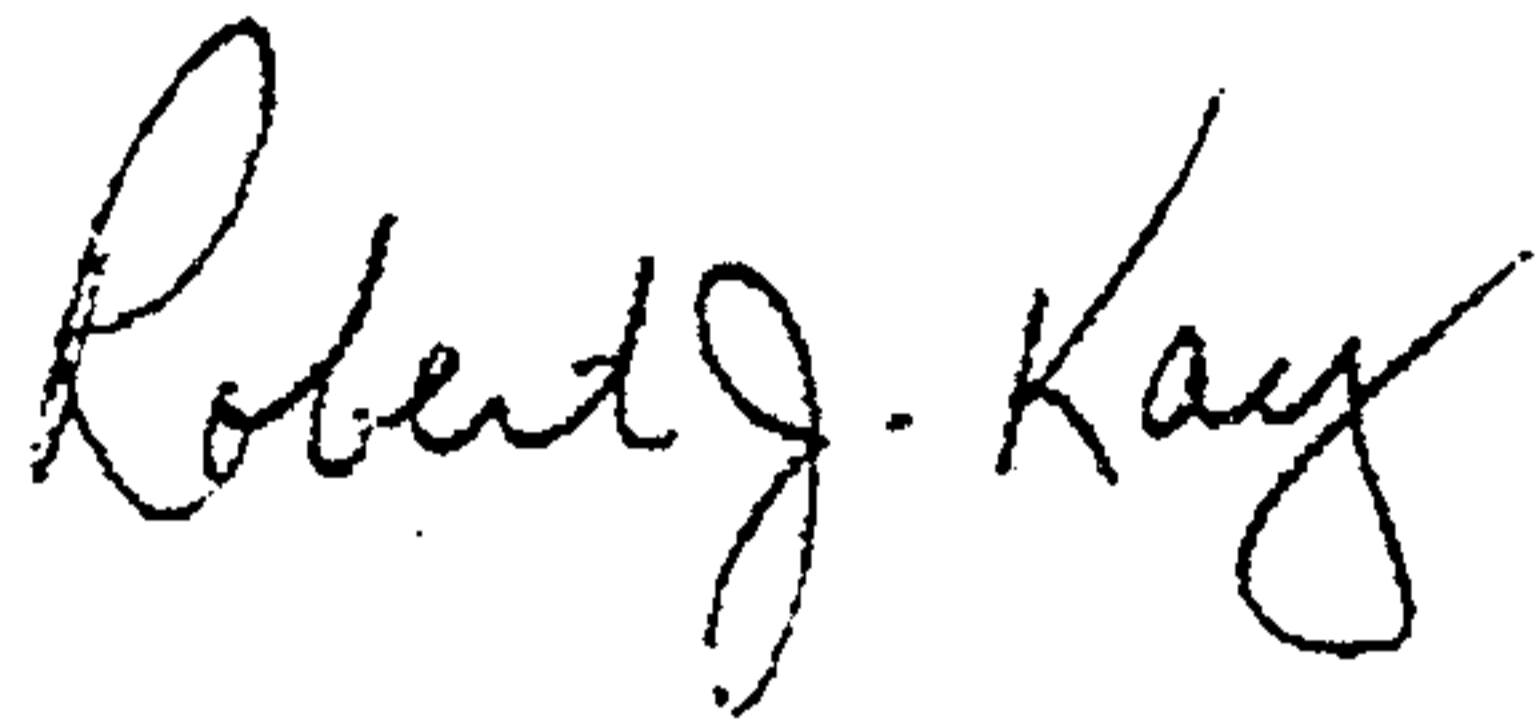
analyzers were used to record data, as well as transparent in-line fuel filters to collect heavy particulate, smoke and carbon. The gas analyzers were operated by technicians from Mohawk College. The apparatus was operated by myself, Chief Mechanical Officer. They were tested under no-load and full-load conditions, from idle speed, quarter, half, three quarter and full throttle conditions.

The test was carried out four different times on each of the four vehicles. Two of the vehicles were triple-combination pumpers and two were similar rescue units with identical engines.

The testing showed a marked reduction in smoke in the vehicles treated with Ferrox Fuel Additive. Exhaust emissions and black exhaust smoke were visibly reduced. As a result of this testing, the Hamilton Fire Department is in the process of using Ferrox Fuel Additive in all of the department's diesel storage tanks.

If I may be of further assistance in this regard, please feel free to contact me.

Yours truly,



R. J. KAY  
Chief Mechanical Officer

RJK/cc