

Report on FPC-1 Catalyst

Ref: FPC-1 Combustion Catalyst

Our society, Azienda Perugina della Mobilita` A.P.M. S.p.A., works in the public transport sector, with methods of transport in the following sectors: bus companies, cable systems, buses for hire, pay scales and third party maintenance.

Our services are used in the city of Perugia and all of the other towns in Umbria except those in the Province of Terni and the towns of Spoleto and Foligno. The total fleet consists of about 350 vehicles.

During the year of 1996 we were contacted by Ice-International Combustion Enhancement Inc., distributors in Europe for FPC-1 combustion catalyst, with the support of technical consultation from the societa` R.p.a. S.p.A of Perugia (Project society in public works, with an environmental division), and with the evaluations conducted at the Institute of Energy by the Faculty of Engineering of Perugia. Assured by the presence of these institutions, we decided to evaluate this catalyst in our motor fleet.

The first test that we performed was in Marsciano with 8 buses of our fleet. The first indication of the effectiveness of the product was verified in the elimination of burning of the eyes that usually irritated the drivers during the warming up of the vehicles inside the garages, done inside of the garages because of the close proximity to the residential zone. Thereafter, our drivers reported more power in the engines and better starting in cold conditions. In addition we verified a reduction of 5.7% in fuel consumption after the first 250 hours of operation, which corresponds to the minimum transitory time requested by FPC-1 to obtain the maximum benefits.

In light of these first results, it was decided to extend the evaluation to all of our motor fleet in the city of Perugia (about 120 buses). Treatment was initiated the first of August of 1997 and in November-December we could already see fuel savings of 6% in some types of buses, with an average of 4-5% in all the motor fleet. Other results obtained in subsequent emissions evaluations performed by engineers of Ice and the Institute of Energy, using sophisticated gas analyzers, confirm that we could achieve a reduction of about 136 tons of carbon monoxide per year from the 4th month of using FPC-1, while our fuel records have demonstrated a constant decrease of about 7% in the consumption of fuel and there is less wear in some engine parts such as injector pumps and filters, which we can confirm more precisely after another period of about 6-9 months of use.

We also note that the motor fleet of our agency is composed of vehicles that in years past were subjected to evaluations of various catalyst systems and modern devices taken from computerized surveys of technical data and services. The types of vehicles in our fleet are as follows:

Menarini 120L	Renault GTX	
Cacciamali TCM (E2)INBUS 210 FTN		IVECO 315
Bredamenarinbus 230	INBUS 150U	IVECO 570.12.20

Euroclass 380 HD (E2)	316 Portesi	IVECO 370.12.26
Illade (Renault) (E2)		
418 AC	CIVIBUS Portesi	IVECO 370.12L.25
Menarini 201 NU	BREDABUS 2001	Menarini 110 L
Menarini 220 NU	IVECO 480.10.21	Renault FR1
CAM 177	IVECO 370.12.30	Policino A4912

Since the average age of the rolling stock fleet committed from A.P.M. to the urban network from Perugia, the main town in Umbria, is less than 8 years, it is believed that the benefits that we are obtaining from the new approved engines and provided by the most recent regulations can be combined with the advantages derived from the use of the catalyst FPC-1.

One can also observe that FPC-1 has demonstrated its benefits on motors already cleaned and we believe that this is a fact more significant and until now found only with this additive.

After the results obtained on the fleet engines at Marsciano, and then subsequently on all of the urban fleet engines in the city of Perugia, the use of FPC-1 is being expanded to all of the vehicles in our agency in the Region of Umbria, (about 350 buses), on a permanent basis.

FPC-1 is perhaps the only combustion catalyst that not only has a guarantee of reimbursement in case it does not provide a savings, but also an insurance of another 3 billion lire (1.6 million dollars) in the event of damage to vehicles or persons (there have been no claims yet). Also for such reasons it is to be considered a valid system to perform, according to the proposed standards for our country in accordance with regulation 21, the world commitment on abatement of emission pollutants into the environment.

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