

Ultra-fine and ‘aggressive’ pollutant particles detected

By Alejandro Ramos & Ivan Sosa

Fuel burning generates ultra-fine particles. Experts recognize that more studies are needed regarding the behavior of the toxic pollutants.

Reforma (April 23, 2006).- The presence of nanoparticles -their size equivalent to one thousandth of a millimeter- in Mexico City’s atmosphere constitutes a wake up call in terms of the health of the population.

Such was stated by Jose Luis Luege, Secretary of Environment and Natural Resources; Luisa Molina, coordinator of the MILAGRO project; and Adrian Fernandez, President of the National Institute of Ecology.

The micro-pollutants are generated by fuel combustion of vehicles and were detected during the MILAGRO project (Megacity Initiative: Local and Global Research Observations) that was conducted in the Mexico City Metropolitan Area during the month of March.

“Recent studies performed by the Harvard School of Public Health demonstrate that ultra-fine particles should receive more attention because they may represent a greater health risk to the population” indicated scientist, Dr. Luisa Molina.

She explained that these pollutants “have always been present in the metropolitan atmosphere”, but that the extend of their presence in the atmosphere and the extent of the damage inflicted had not been established through scientific studies until now.

“The first step was to register all of the solid particles. Then the focus shifted to particles smaller than 10 and 2.5 micrometers that began to be monitored in 2003 as a result of our recommendation” indicated Luisa Molina.

The preliminary results of MILAGRO, she added, indicate that the nanoparticles come from moving vehicle traffic.

Adrian Fernandez emphasized that scientists and authorities will have to conduct in-depth studies of these particles to set new environmental measures and regulations.

During the joint interview, the head of Semarnat added that the information acquired during the MILAGRO campaign proves that pollutants migrate to and from cities and continents. Therefore, “pollution-generating sources will have to be regulated.”

“Before thinking of asking for compensation or looking to blame others we must first assess our own situation.”

“I would urge Alejandro Encinas, head of the Government of Mexico City, to be cautious on the issue of demanding settlements, especially since we may be asked for compensation due to all the pollution Mexico City is generating”, commented Luege.

Luege indicated that “according to Semarnat’s agreement with Pemex, and as soon as the distribution of fuel with lower levels of sulfur begins” negotiations will commence with the automobile industry to include *Tier Two* cars; the latest generation in emissions-control technology.

He also revealed that, before this six-year government term is up, standards will be designed in order to outline an emissions verification test for diesel trucks with federal license plates.

Fernandez stated that, parallel to the upcoming changes in the Administration, in six months time the results from the MILAGRO project will be revealed and disseminated through future workshops. The results obtained are expected to help develop measures to control air pollution.

Citations



“Pollution in Tula affects the Mexico City Metropolitan Area; therefore, every region must tend to their pollution-generating sources before looking for payment settlements”. Jose Luis Luege, head of Semarnat



“It is this Administration’s responsibility to set the standards for the automobile industry to introduce emission-control technologies”. Adrián Fernández, president of the INE



“The pollution measurement campaign that was carried out using aircraft and monitoring supersites during the month of March will generate recommendations to improve air quality”.

Luisa Molina, coordinator of the MILAGRO campaign

The emissions exodus

The preliminary results from the MILAGRO campaign demonstrate a constant migration of pollutants throughout the planet.



Generation and output

The plume of pollutants generated in the Mexico City Metropolitan Area reaches the Gulf of Mexico in one day.

All throughout that region the miasma of pollutants mixes with emissions from other continents.

Dispersal and return

The pollutants tend to become diluted and may return, depending on the direction in which the winds flow, to the Mexico City Metropolitan Area and adjoining states.

Scientists will continue to investigate the scope of the impact resulting from the migration of pollutants.

