Cuba Eliminates Ozone-Layer-Exhausting Substances

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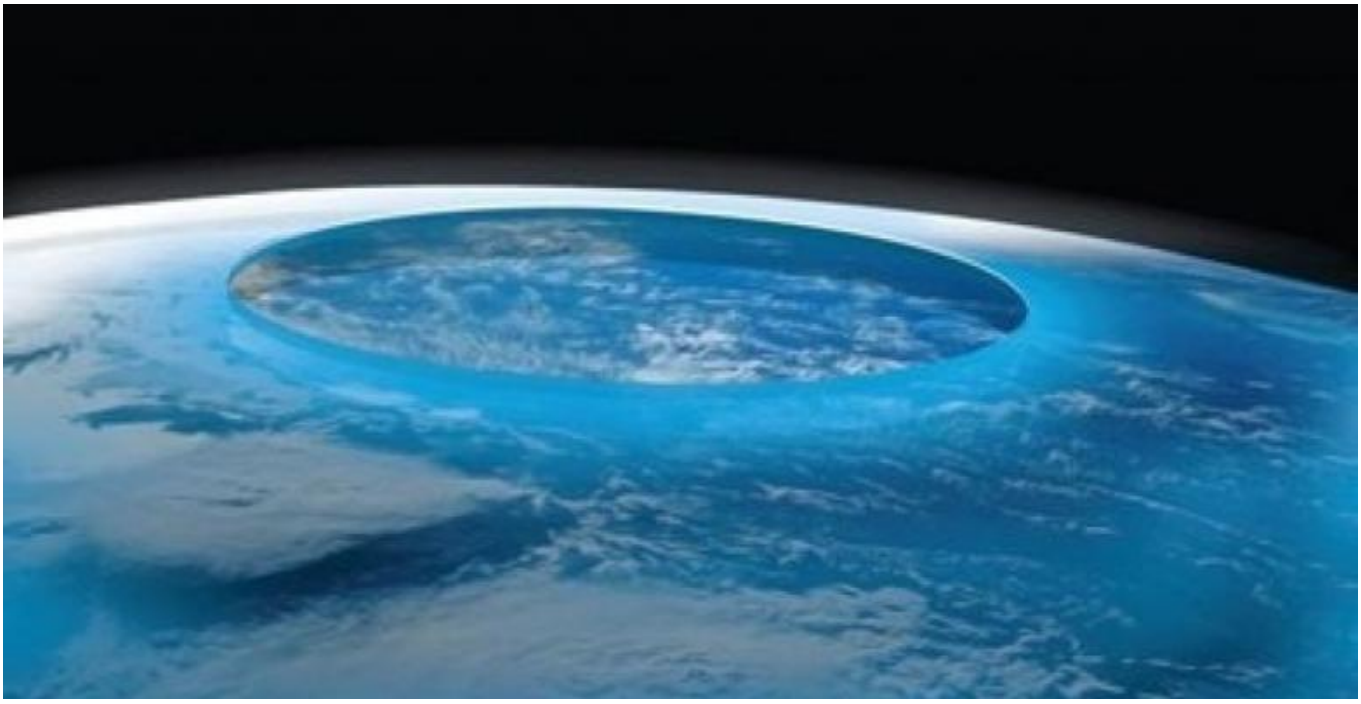

Cuban experts are giving the final touches a plant with Japanese technology to destroy substances that exhaust the ozone layer (OLES), the fragile gas stratus that prevents the Sun's ultraviolet radiation from damaging life on Earth.

Master of Science Natacha Figueredo, from the Cuban Technical Office on Ozone (OTOZ), explained that the new plant would work as part of the facilities of a cement factory in the island, and it is part of a demonstrative project for collecting, recovering, storing, transporting and regenerating the aforementioned substances. The initiative was the result of strategy conceived between OTOZ and the Multilateral Fund for the Implementation of Montreal Protocol, through the United Nations Development Program (PNUD), which seeks to grant an environmentally safe destination to the destroyed OLES and avoid their emission to the atmosphere, contributing to Cuba's commitment.

Figueredo added that the OLES that were stored after replacing more than two and a half million refrigerators and almost 300,000 home air conditioners, during the so-called energy revolution in the country, are currently destroyed at the cement factory in Siguaney, in the province of Sancti Spiritus, 350 kilometers east from Havana.

A second stage of the elimination schedule, includes hydrochlorofluorocarbons (HCFC), she said.

Cuba has destroyed 258.4 kilograms of OLES so far, a figure that will increase when the new

plant's operations are stable.

The project has as pending activity to validate non-emission of persisting organic compounds (dioxins and furanes) during the process, an action that requires transference of samples to European laboratories that are accredited for this kind of analysis.

CUBA TOTALLY ELIMINATES CONSUMPTION OF CHLOROFLUOROCARBONS

Cuba is the first country in the world that eliminated totally the consumption of chlorofluorocarbons (CFC) in refrigeration. The Caribbean nation has achieved a significant contribution to the struggle against the current climate change, caused by human activity, by means of reducing its emissions of gases that affect the ozone layer and are at the same time, greenhouse-effect gases.

According to data of the OTOZ, the actions carried out under the auspices of that office allow Cuba to stop sending four million tons of CO2 annually to the atmosphere.

Four decades ago, a group of scientists warned the world that the gases known as CFC that are sent to the stratosphere by the refrigeration industry and aerosols were able to destroy the ozone molecules when interacting with them.

It is a gas, the molecules of which contain three atoms, making it an unstable form of the oxygen that is in the earth's atmosphere. The area where it is present in the greatest concentration in the stratosphere is between 12 and 50 kilometers high, called ozone layer.

That warning meant that the protecting layer could be exhausted progressively and its function of protecting life on Earth could stop, absorbing the damaging ultraviolet radiations from the Sun that in high dosages bring about significant danger to human health, animals and vegetables.

With this, the cases of people with skin cancer, cataracts, deformation of the crystalline lens and damages to the immune system would increase, as well as severe damage to agriculture, because plants would grow less and there would be less agricultural yield among other adverse phenomena.

In fact, in 1985, British scientists verified at an observation base located in the South Pole that the ozone rates were really low compared to normal rates in the southern winter, a discovery that marked then, the use of the term Antarctic Ozone Hole.

Since then, the issue has gained great importance among the environmental problems in our planet.

PROTECTION OF THE OZONE LAYER IN CUBA

Although in tropical areas the thickness of the mentioned layer remains within the usual values, it has the attention of the State in Cuba, which ratified the Vienna Convention and the Montreal Protocol of, as well as all the amendments included, international mechanisms created for its protection.

The Vienna Convention was created in 1985, under the auspices of the United Nations Environment Programme. This agreement approved to adopt a group of measures to protect human health and the environment against the possible adverse effects of human activity on that natural shield.

The Montreal Protocol for the gradual elimination of OLES, especially the CFC and halons, was created in that Canadian city on September 16, 1987, a date established in 1995 by the UN General Assembly as the International Day for the Preservation of the Ozone Layer.

Cuba eliminated its imports of chlorofluorocarbons, methyl bromide, carbon tetrachloride and halons, substances that exhaust the ozone layer of the Earth's atmosphere.

Elaboration of the Program Country in 1993 to eradicate OLES and creation of the Technical Office on Ozone were important steps for gradual elimination of those substances.

Cuba suspended the use of methyl bromide as pesticide in tobacco crops, and the aerosol sector was replaced with state-of-the-art CFC-free technology, eliminating 30 tons of CFC in the manufacture of pharmaceutical aerosols.

This Caribbean island also created a legislative system for the protection of the ozone layer.

Cuba has established a system of environmental incentives for the industrial entities in the country, as well as environmental education programs for children and youths and other activities to educate the population and spread knowledge about this field.

More than 10,000 specialists, technicians and skilled workers from sectors as refrigeration, air conditioning, customs, agriculture, vegetable health, public health, pharmaceutics, social services, statistics and others have been trained for their respective activities in relation to this issue.