

A weekly electronic news service on ozone protection & related issues compiled by: UNEP DTIE OzonAction Programme 18 August 2000

In this issue:

- 1. Capstone Turbine and Japan Steel Works to Develop Chilling System
- 2. India, China to Cut Back Greenhouse Gas Output
- 3. FOSTERS Beer Commits to Drop Polluting Refrigerants
- 4. City to Pay 4M In Federal Ozone Suit
- 5. EU Proposal to Speed Up Cut in Emissions

1. Capstone Turbine and Japan Steel Works to Develop Chilling System Using MicroTurbine Exhaust Heat New Technology to Create Sub-Freezing Air from 500 degrees F Exhaust

CHATSWORTH, Calif.Capstone Turbine Corporation and Japan Steel Works have begun development of a heatexchange system that will utilize hot exhaust from the Capstone MicroTurbine(TM) power system to generate frigid air for commercial freezing and refrigerating uses. The co-developed system will employ Japan Steel Works' metal hydride absorption technology to achieve supply-air temperatures as low as 14(0)F. Using exhaust heat from the microturbine in this manner will dramatically increase system efficiency by reducing or eliminating energy costs for refrigeration. Absorption chilling is not new, but current technologies require much higher input temperatures to generate such low temperature outputs. The metal hydride concept pioneered by Japan Steel Works, combined with Capstone's microturbine expertise, will enable more effective system solutions.

"Japan Steel Works is world-renowned for their leadership in metals technology, among many other fields," said Dr. Ake Almgren, President and CEO of Capstone Turbine. "We believe that combining their technical expertise with ours will result in a highly effective and environmentally beneficial product."

Japan Steel Works has been a leader in the development of metal hydrides -- hydrogen absorbing alloys -- and their application systems, to create refrigeration systems without the use of chlorofluorocarbons (CFCs). Such chemical compounds are considered damaging to the ozone layer that protects the Earth from solar radiation.

A prototype system using this technology has already been constructed and tested in Japan. Pre-commercial testing will continue for the remainder of the year. Assuming all goes as planned, a production product should be on the market late next year. <u>Contact</u>: Capstone Turbine Corporation, Keith Field, 818/734-5465

Source: http://biz.yahoo.com/bw/000814/ca_capston_2.html

2. India, China to Cut Back Greenhouse Gas Output

China and India last week announced plans to reduce emissions of ozone-depleting gases in coming years, focusing primarily on industrial materials. China's nine-year program addresses the use of ozone-depleting substances in cleaning agents used in 10 industries. China, one of the world's top greenhouse gas producers, will ban carbon tetrachloride by 2004 and methyl chloroform and chlorofluorocarbon CFC-113 by 2009. The effort will combine the resources of the Chinese government, the UN Development Program and special funding from The Montreal Protocol gave China \$5.2 million toward the initiative in March, while UNDP provided \$9.6 million last year to help fund a \$40 million plan to promote refrigerators that do not produce chlorofluorocarbons. China also has converted some power plants from coal to natural gas and started to fuel some cars with liquid natural gas. India's plan, like China's, seeks to phase certain substances out over the next several years. Industrial use of chlorofluorocarbons will be banned after January 2015, while hydrochlorofluorocarbons will be permitted until 2040.

India's rules also call for registration and recordkeeping of the production, industrial use, import, export and storage of ozone-eating substances. India is also one of the world's leading producers of chlorofluorocarbons.

Source: http://www.unfoundation.org/unwire/archives/UNWIRE000814.cfm#12 14 August 2000

3. FOSTERS Beer Commits to Drop Polluting Refrigerants

SYDNEY, Australia, August 11, 2000 (ENS) - Greenpeace has persuaded a second Olympics sponsor to abandon greenhouse polluting hydrofluorocarbons (HFCs) from its refrigeration units. For full text and graphics visit: http://ens.lycos.com/ens/aug2000/2000L-08-11-12.html

4. City to Pay 4M In Federal Ozone Suit

The Sanitation Department yesterday agreed to pay \$4 million to settle a federal lawsuit that alleged its haphazard disposal of old refrigerators posed a threat to the ozone layer.

U.S. Attorney Mary Jo White said the settlement was reached after the city agreed to remove toxic chemicals from discarded refrigerators, freezers and air conditioners before carting such appliances to the city dump.

The Giuliani administration will pay \$1 million in penalties for violations of the federal Clean Air Act between 1992 and 1999. During that time, the city was cited for illegally compacting some 100,000 appliances each year without removing refrigerants containing ozone-depleting substances, according to the federal Environmental Protection Agency.

As part of the agreement, the city will spend an additional \$3 million to further improve air quality by building seven fueling stations for city vehicles that run on compressed natural gas, which is less polluting than gasoline or diesel fuel. In addition, the Sanitation Department will purchase nine heavy-duty garbage trucks that run on natural gas. To comply to with the Clean Air Act, the city had to establish a new pickup program, according to Assistant Corporation Counsel Susan Kath, its chief environmental lawyer.

For the past year, sanitation crews using special equipment have been extracting refrigerants from appliances left at curbside. Only then are the appliances picked up for disposal.

"Coming up with a program that would be both effective, efficient and fiscally responsible took some time," Kath said. "But we have one now."

EPA spokeswoman Mary Mears said the department has reviewed the new system and found it was working well.

Source:News and Views, 08 August 2000, by Salvatore Arena, <u>http://www.nydailynews.com/2000-08-08/News_and_Views/City_Beat/a-75881.asp</u>

5. EU Proposal to Speed Up Cut In Emissions

BELGIUM: July 12, 2000 - The European Union proposed that developing countries speed up phasing-out their consumption of ozone-destroying hydrofluorocarbons (HCFCs) used as refrigerants and solvents.

Under the EU plan, being debated at talks in Geneva this week, developing countries would have to freeze their use of the substances by 2007 instead of in 2016, the U.N. Environment Programme (UNEP) said in a statement in Geneva.

The goal would still be for developing countries to completely phase-out use of HCFCs, a leading substitute for chlorofluorocarbons (CFCs), by 2040, it added.

The target was set by the Montreal Protocol on Substances that Deplete the Ozone Layer. The 1987 pact, aimed at protecting the layer shielding the earth from harmful ultraviolet rays blamed for causing cancers and cataracts in humans and also damaging crops and animals, has been ratified by 175 states.

"The proposal is based on the concern that, while much less destructive than CFCs, HCFCs do contribute to ozone depletion, and other substitutes are now available on the market," UNEP said.

"The EU proposal calls for moving the freeze up to 2007 and for setting four interim reduction targets before the 2040 phase out."

The Geneva talks, attended by 300 diplomats and technical experts, are being held through Friday. They will make recommendations to a high-level meeting reviewing the protocol, being held in Ouagadougou, Burkina Faso from December 11-15.

Under the protocol, developing countries were committed to freezing their CFC emissions at average 1995-97 levels by June 30. The next goal is to achieve a 50 percent cut by 2005, with complete phase-out in 2010.

Developed countries stopped using CFCs almost completely in 1996, according to UNEP. They are to reduce use of HCFCs by 30 percent by 2004, and progressively phase them out by 2020.

Other issues on the table include stopping new ozone-depleting substances entering the market; exemptions for using controlled substances as process agents in the chemicals industry; and ways to facilitate the transition from CFC-based inhalers used by asthma sufferers, UNEP said.

Source: <u>http://www.planetark.org/searchresults.cfm?criteria=ozone+layer&sortorder=date</u>

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