OzoNews
A FORTNIGHTLY ELECTRONIC NEWS SERVICE ON OZONE PROTECTION AND IMPLEMENTATION OF THE MONTREAL PROTOCOL
UNEP

15 October 2012

Vol. XII

In this Issue:

25th Anniversary Montreal Protocol Global Video Competition

Were you born on or after the historic date in September, 1987, when nations of the world came together to protect the endangered ozone layer? If so, you have a chance to create a short video about this remarkable environmental achievement - and win attractive prizes including a trip to Geneva! The United Nations Environment Programme (UNEP) is launching a global video competition for young people to produce a very short video on the Montreal Protocol on Substances that Deplete the Ozone Layer, which celebrates its 25th anniversary in September this year. The videos should highlight – in an engaging manner – any aspect of the Montreal Protocol and how its implementation has helped protect all life on Earth. It can focus on the local, regional or global levels.

Do not miss your chance to participate in our youth Video Competition and winning a trip to Geneva, Switzerland!!! If you have already filmed your video please submit it according to the guidelines given. If you have not, then you can do it over this weekend and have some fun!

The deadline is this Monday 15 October, so hop on it!

The videos must be posted to OzonAction's YouTube website at www.youtube.com/ozonaction
by 15 October 2012 >> Competition details and criteria

See also >>

2012 Ozone Day a Special OzonAction Webpage, dedicated to worldwide celebrations **bit.ly/NnhK52**

Check out the celebrations around the world on the special OzonAction Facebook Ozone Day map -
(You need to have a FaceBook account to see)
http://www.facebook.com/my.ozone.day/map

->- SHARE YOUR OZONE DAY PHOTOS WITH EVERYONE -<-

Invitation to Join the Webinar Session on "Challenges for HCFC phase-out in the air conditioner sector" Wednesday 17 October, 18:30 (Bkk L/T)…
Learn more **here**
Register @ https://www3.gotomeeting.com/register/521815854

GLOBAL

1- Note by the Methyl Bromide Technical Options Committee on Draft Version 7 of the Handbook on Critical Use Nominations for Methyl Bromide

SUMMARY OF THE CHANGES MADE TO THE HANDBOOK (as required by Decision XXIII/14)

- The draft seventh version of the Handbook has been revised in time for submission of remaining critical uses of methyl bromide by non A5 Parties and also by A5 Parties, which may seek methyl bromide use after its final phase-out in 2015.
- As in non A5 Parties, it is anticipated that any A5 CUNs will be submitted for annual amounts of MB either one or two years before the year in which MB is required, for use after the final phase-out date.
- Selected sections were moved within the document, to facilitate information flow and simplify the critical use nomination process for both non-A 5 and A 5 Parties. The timetable and standard presumptions can now be found in sections 3.3 and 3.5 respectively, which specifically focus on these topics. These changes however only apply to format of the document and are non-substantive.
- Older sections in the Handbook, which asked Parties for information that was either rarely or never supplied, have been removed from the structures and commodities section as they were considered unnecessary. For example:
  - provision of information on the potential market penetration of newly deployed alternatives and alternatives which may be used in the near future, to bring forward the time when it is estimated that methyl bromide consumption for the nominated use can be reduced and/or ultimately eliminated.
  - identifying comparative disease ratings and yields with the use of methyl bromide formulations and alternatives.
  - Section 14 of the SC form on "Use/emission minimisation measures" has been simplified and now only requires general information.
- The section referring to the MBTOC Code of Conduct and MBTOC membership (previously in section 2.6.3) has been removed as it was not considered relevant to the Handbook.
- In the final paragraph of the section "*Requirements for the nominating parties*" the economic measures or indicators contained in Section 4 of Annex 1 of the meeting report of the EMOP1 have been set out more clearly to a) reflect standard agricultural economic practice, and b) to accommodate the differences between Soils and Structures and Commodities Nominations. These technical changes should facilitate the task of the nominating party. Economic assessment guidelines have thus been modified to specifically address issues relating to soils and structure and commodity CUNs (numeral 24 in section 4.1 and numeral 15 in section 4.2).
- Nomination forms (Chapter 4) were updated so that only one form is now suggested for both new and continuing nominations for both preplant soil, and structures and commodities.
- Standard presumptions, as approved by the Parties, used to evaluate soils (preplant) and structures and commodity (postharvest) CUNs remain unchanged from Version 6. They have been moved to section 3.5 for easier flow of information.
- Under Decision Ex.I/4 *on conditions for granting and reporting critical-use exemptions for methyl bromide*, the key requirements for the Parties are considered. MBTOC assumed that corresponding dates for annual submission and review of CUNs apply as per the deadlines set out for non A 5 Parties and has included these in brackets for A5 Parties (see Section 2.2 *Requirements for nominating Parties* , section 3.4 on *Continuing nominations* and Chapter 5 on Accounting Frameworks*)*. Parties may wish to consider addition of these new dates and amend Decision Ex.I/4 to reflect them, or simply adopt them through this revised version of the Handbook.
- Appendix B, *Extracts from Meeting Reports and Decisions of the Parties to the Montreal Protocol Relevant to Critical Uses of Methyl Bromide* was updated to include all relevant decisions since version 6 (from 20th MOP onwards).

Read/Download the Handbook on Critical Use Nominations for Methyl Bromide - Draft Version 7
http://bit.ly/UQfPtj
SOURCE: UNEP Ozone Secretariat, **http://bit.ly/OYkRBF**

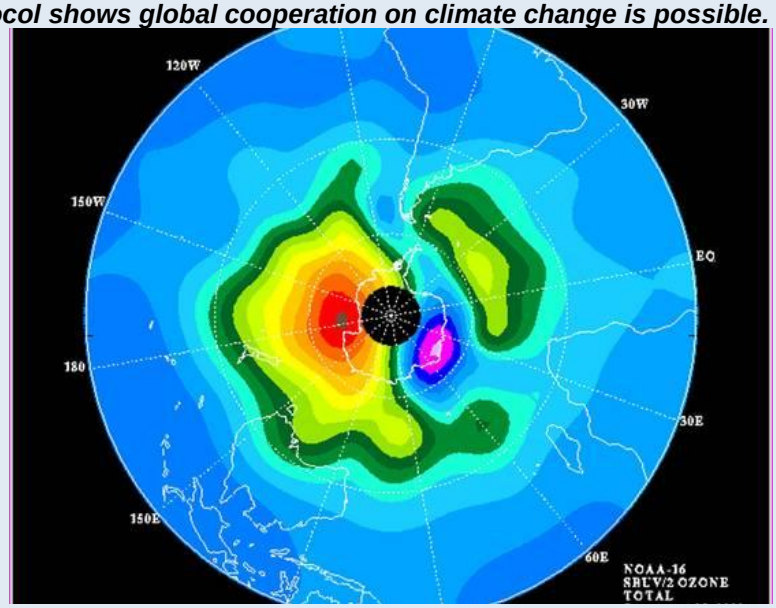
2- TEAP October 2012 Evaluation of 2012 Critical Use Nominations for Methyl Bromide and Related Matters - Final Report

Scope of the Report - This 2012 final report provides evaluations by MBTOC of Critical Use Nominations

(CUNs) submitted for methyl bromide (MB) for 2014 by three Parties (Australia, Canada, USA). As per provisions set out in Decision IX/6 (Annex I, MOP16), CUNs were submitted to the Ozone Secretariat by the Parties in accordance with the timetable shown in paragraph 1 of Annex I, Decision XVI/4.
This final report 1) provides new updated recommendations for the CUNs for which the Parties provided further information or requested reassessment after the 32nd OEWG, 2) lists the CUNs for which interim assessments have not changed and 3) provides information on the CUNs from Parties on stocks (Decision Ex.1/4 (9f)). It further provides partial information on actual MB consumption for critical uses (in accordance with Decision XVII/9) and apparent adoption rates of alternatives, as evidenced by trend lines on reduction of MB CUNs (in accordance with Decisions XIX/9, XX/5). It is noted that trend lines on adoption may not necessarily indicate true adoption rates for alternatives, as the use of stocks of MB that may have been available to the same sector or areas of production may have increased or fallen within the sector due to a range of circumstances. MBTOC notes that stock volumes have significantly decreased in recent years.
Standard presumptions used in the 2012 round were the same as those used in the 2011evaluations of the CUNs. These standard presumptions are subject to continual review. However, any changes proposed by MBTOC are required to be approved by the Party‟s in the MOP preceding the year of assessment based on a draft Decision presented to the MOP in accordance with paragraph 2 in Annex 1 to the report of MOP16.
SOURCE: UNEP Ozone Secretariat. **Read/Download the full report** http://bit.ly/UVkeWk

3- Ozone Success Gives Hope for Climate

Montreal Protocol shows global cooperation on climate change is possible.



Scientists from NOAA and NASA confirmed in September 2002 the ozone hole over the Antarctic is not only much smaller than it was in 2000 and 2001. (Photo: NOAA, XSP)

9:50PM EST October 3. 2012 - Climate change is not our first planetary pollution crisis. Almost 40 years ago, scientists discovered that chemicals called chlorofluorocarbons were destroying the fragile ozone layer that protects us from the sun's dangerous UVB radiation.
That would have condemned millions of people around the world to die from skin cancer, go blind with cataracts or suffer from immune diseases.
But the world came together and averted a catastrophe. The crowning moment came 25 years ago this month when the United States joined other nations to sign the world's most successful environmental treaty, called the Montreal Protocol. That's the treaty that put an end to the production of CFCs, rescued the ozone layer, saved millions of lives, and avoided a global catastrophe.
We too often take the rescue of the ozone layer for granted. A whole generation has grown up not hearing much about it, except maybe once each September when the recurring Antarctic ozone hole gets a brief mention in the news.
As we struggle for agreement on steps to curb the carbon pollution that's driving climate change, it's worth remembering, and learning from, our success in solving the ozone crisis.
The road to Montreal began in 1974 when two chemists, Sherwood Rowland and Mario Molina, discovered that CFCs released from aerosol sprays could rise miles into the stratosphere. There the sun's harsh rays split the CFCs apart, triggering chemical reactions that destroyed ozone molecules. As the ozone shield weakened, more of the sun's dangerous UV rays would reach the earth's surface.
The discovery made big news and galvanized Americans into action. Aerosol sales plummeted. Some companies redesigned their products. But others dug in. For more than a decade, the chemical companies that made CFCs reacted much like today's coal and oil companies: They denied the science, attacked the messengers, and predicted economic ruin.

But scientists and lawyers at the Natural Resources Defense Council (NRDC) fought back. In the next few years, Congress added ozone layer protections, federal agencies mopped up the last aerosols and the State Department began working on an international treaty.
But protecting the ozone layer was not a priority in Ronald Reagan's first years. EPA did nothing, treaty talks stalled and CFC use rebounded.
So NRDC sued EPA and to its credit, the Reagan administration followed the science and settled our lawsuit with a plan of action. The surprise discovery of a gaping hole in the ozone over Antarctica added new urgency. By 1986, even the chemical industry agreed CFC limits were needed.
In 1986, NRDC proposed the idea of a global phase-out. And to his credit once again, Reagan put a phase-out plan on the international negotiating table.
And 25 years ago this month, countries reached agreement on the Montreal Protocol. Every president since Reagan has supported the treaty. Every country on earth, from China to South Sudan, is now a full party.
It is not easy to convey the scale of the catastrophe that was avoided, the disaster that did not happen. Untold lives saved, cancers averted and agricultural disasters avoided. This is what NASA scientist Dr. Paul A. Newman calls "The World Avoided." You can read about it on NASA's website, and you can watch Dr. Newman explain it here.
So what are the lessons we've learned?
First, by acting together, nations have put the ozone layer on the road to recovery. The world has committed to eliminate the last ozone-depleting chemicals. And while national compliance with the ozone treaty commitments has been high, governments have to work harder to crack down on law-breakers.
Yet if we stick with it, scientists expect the Antarctic ozone hole to close for good around mid-century.
Second, we can do more under the Montreal treaty to fight climate change. There's already been a climate change bonus. CFCs are powerful heat-trapping pollutants and replacing them has slowed climate change by a decade. Had we not acted, the world would already be suffering even more severe droughts, floods and storms. This summer's extreme weather would have been even worse.
But one group of CFC replacements, called HFCs, poses a big problem. HFCs are also powerful greenhouse gases, and Dr. Newman's science panel has estimated that if we let them keep growing, by mid-century they'll trap as much heat as CFCs did at their peak.
Wisely, the Montreal treaty gives the parties the responsibility to ensure that replacement chemicals are safe — and that includes ensuring that they don't magnify climate change. So with other countries, the U.S. has proposed using this treaty to phase down HFCs. The vast majority of developed and developing countries want to move forward, but three countries — China, India, and Brazil — are blocking the start of negotiations. We'll be looking for a breakthrough at the next meeting, in Geneva this November.
Despite the stand-off on HFCs, the Montreal Protocol is proof positive that the Earth's nearly 200 countries can cooperate to save their citizens from a planetary pollution catastrophe.
If we can protect the ozone layer, we can find a way to protect the climate.
SOURCE: US Today, 3 October 2012, By: David Doniger, policy director of climate and clean air program at the Natural Resources Defense Council**.** **http://usat.ly/Rq4rQA**

4- Prevention is Best: Lessons from Protecting the Ozone Layer

ABSTRACT - The Montreal Protocol was signed 25 years ago. As a result, the irreversible destruction of the ozone layer was prevented. However, stratospheric ozone will not recover completely until 2060 and the consequent epidemic in skin cancer cases will persist until 2100. Many millions of patients with asthma and chronic obstructive pulmonary disease have safely switched from chlorofluorocarbon (CFC)-powered metered-dose inhalers (MDIs) to either hydrofluorocarbon (HFC) or DPIs. China will be the last country to phase out CFCs by 2016.
HFCs are global warming gases which will be controlled in the near future. HFCs in MDIs may be phased out over the next 10–20 years… **Click here** to read full text.
SOURCE: Thorax.bmj.com, 27 September 2012, By: Professor Ashley Woodcock, Institute of Inflammation and Repair, University of Manchester, Manchester Academic Health Science Centre.

AFRICA

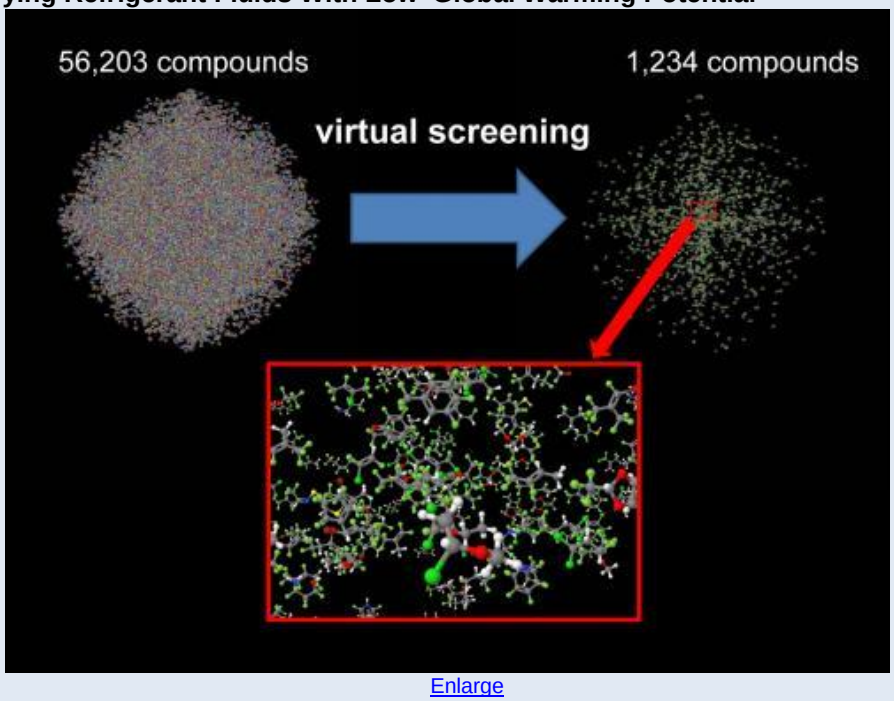
5- Bosch to Establish Refrigerator Assembling Plant in Ghana

German Company, Bosch has shown interest in establishing a refrigeration assembling plant in Ghana as the total ban of second-hand fridges comes into force from January next year.
Investors representing the company are already in discussions with the Energy Commission and other stakeholders over the plan.
Head of Energy Efficiency and Climate Change at the Energy Commission, Kofi Agyarko who disclosed this to JOY BUSINESS is optimistic of a positive outcome.
“Investors are ready but they want to see how effectively we can implement the ban because the fluorescent used-refrigerator market has always been a scaring factor to them. We are working together with those who deal in the used refrigerators to switch to the importation of new refrigerators” he said.
Ghana is signatory to the Montreal protocol against the use of CFC refrigerators and the Energy Commission is working closely with the Environmental Protection Agency to implement the policy.

He also disclosed Bosch's plans to first offer products for sale and gradually expand its presence in the country. "Just last week we met with them and they have submitted a series of proposals which we are considering. We have also trained mechanics across the country to enhance their capacities to handle the new refrigerators that are coming in" he added.
SOURCE : BusinessMyJoyOnline, 8 October 2012, **http://bit.ly/RL7cfv**

NORTH AMERICA

6- Identifying Refrigerant Fluids With Low 'Global Warming Potential'



Enlarge
Refrigerant Fluids. Credit: Kazakov/NIST

(Phys.org)—Researchers at the National Institute of Standards and Technology (NIST) have developed a new computational method for identifying candidate refrigerant fluids with low "global warming potential" (GWP)—the tendency to trap heat in the atmosphere for many decades—as well as other desirable performance and safety features.
The NIST effort is the most extensive systematic search for a new class of refrigerants that meet the latest concerns about climate change. The new method was used to identify about 1,200 promising, low-GWP chemicals for further study among some 56,000 that were considered. Only about 60 of these have boiling points low enough to be suitable for common refrigeration equipment, an indication of how difficult it is to identify usable fluids.
The ongoing NIST project is a response to U.S. industry interest in a new generation of alternative refrigerants that already are required for use in the European Union.
The refrigerants now used in cars and homes are mainly hydrofluorocarbons (HFCs). They were adopted a generation ago in the effort to phase out chlorofluorocarbons (CFCs), which deplete the stratospheric ozone layer. An example is R-134a (1,1,1,2-tetrafluoroethane), which replaced ozone-depleting chemicals in automobile air conditioners and home refrigerators. R-134a now is being phased out in Europe because HFCs remain in the atmosphere for many years, yielding a high GWP. A compound's GWP is defined as the warming potential of one kilogram of the gas relative to one kilogram of carbon dioxide. R-134a has a GWP of 1,430, much higher than the GWP of 150 or less now mandated for automotive use in Europe.
Promising low-GWP chemicals include fluorinated olefins, which react rapidly with atmospheric compounds and thus will not persist for long periods.
"What industry is trying to do is be prepared, because moving from a GWP in the thousands or tens of thousands to a GWP of 150 is an enormous challenge, both economically and technologically," says NIST chemist Michael Frenkel. "We decided to leverage the tools NIST has been developing for the last 15 years to look into the whole slew of available chemicals."
The affected industry is huge: The U.S. air conditioning, heating and refrigeration equipment manufacturing industry ships about $30 billion in goods annually, according to the U.S. Bureau of the Census.
NIST has extensive experience evaluating alternative refrigerants, having previously helped the refrigeration industry find replacements for CFCs.
The new NIST method estimates GWP by combining calculations of a compound's radiative efficiency (a

measure of how well it absorbs infrared radiation) and atmospheric lifetime, both derived from molecular structure. Additional filtering is based on low toxicity and flammability, adequate stability, and critical temperature (where the compound's liquid and gas properties converge) in a desirable range. The method was applied to 56,203 compounds and identified 1,234 candidates for further study. The method, which was validated against available literature data, is accurate and fast enough for virtual screening applications. The approach is similar to the large-scale virtual screening and computational design methods for discovering new pharmaceuticals.

The screening is the initial stage of a larger study funded by the U.S. Department of Energy. The next step will be to further narrow down the candidates to a couple dozen suitable for detailed investigation in refrigeration cycle modeling.

More information: A. Kazakov, M.O. McLinden and M. Frenkel. Computational design of new refrigerant fluids based on environmental, safety, and thermodynamic characteristics. *Industrial and Engineering Chemistry Research*. Article ASAP, Publication Date (Web): September 4, 2012. DOI: 10.1021/ie3016126

Provided by National Institute of Standards and Technology

SOURCE: Phys.Org, 19 September 2012 by Laura Ost, **http://bit.ly/OExprL**

7- Miami Man Pleads Guilty in Illegal Refrigerant Smuggling Operation

Wifredo A. Ferrer, United States Attorney for the Southern District of Florida, Maureen O'Mara, Special Agent in Charge, U.S. Environmental Protection Agency (EPA), Criminal Investigation Division, Atlanta Area Office, Drusilla Hufford, Director, EPA's Stratospheric Protection Division, and Alysa D. Erichs, Special Agent in Charge, U.S. Immigration and Customs Enforcement's Homeland Security Investigations (ICE-HSI), Miami Field Office, announced that defendant Norberto Guada, 43, of Hialeah, Florida, pled guilty yesterday in U.S. District Court in Miami on charges of knowingly importing approximately 15,640 kilograms of illegal hydrochlorofluorocarbon-22 (HCFC-22), contrary to the provisions of the Clean Air Act (CAA). HCFC-22 is a widely used refrigerant for residential heat pump and air-conditioning systems.

U.S. District Judge Donald Graham accepted Guada's guilty plea to one count of the multiple-count indictment that had been filed against Guada and co-defendant Jorge G. Murillo. Guada faces a possible sentence of up to twenty years in prison, a fine of up to $250,000, and three years of supervised release. Sentencing is scheduled for December 11, 2012 at 2:20 p.m.

The CAA regulates air pollutants, including ozone depleting substances, such as HCFC-22. The CAA and its implementing regulations established a schedule to phase out the production and importation of ozone depleting substances, with a complete ban starting in 2030. To meet its obligations under an international treaty to reduce its consumption of ozone depleting substances, the United States issued baseline consumption allowances for the production and importation of HCFC-22 to individuals and companies. To legally import HCFC-22, one must hold an unexpended consumption allowance.

According to court records and a factual statement filed in court yesterday, Guada was hired as a salesman in February 2007 by a company known as Lateral Investments LLC (Lateral). Lateral was a Florida corporation, engaged in, among other things, importing merchandise, including refrigerant gas. Between June and August 2007, Lateral illegally smuggled large quantities of HCFC-22 into the United States to sell on the black market. At no time did Lateral or its principals hold unexpended consumption allowances that would have allowed them to legally import the HCFC-22.

In this way, during 2007, Lateral illegally imported approximately 278,256 kilograms or 20,460 cylinders of restricted HCFC-22, with a market value of $1,438,270, which Guada was tasked with selling to businesses in the South Florida area. As part of his agreement in this matter, Guada specifically admitted to his knowing involvement in the importation and sale, contrary to law, of 15,640 kilograms of HCFC-22 on August 10, 2007.

SOURCE: US Department of Justice, 3 October 2012, **http://1.usa.gov/VZAcUe**

8- EPA Approves Three Halon Substitutes for Fire-Suppression Systems

The U.S. Environmental Protection Agency (EPA) has issued a direct final rule approving three substances as acceptable alternatives for halons in fire-suppression systems. *77 Fed. Reg*. 58,035 (9/19/12). Once used in fire extinguishers, halons were banned from production in the United States in 1994 "because their emissions into the atmosphere are highly destructive to the stratospheric ozone layer." The three halon substitutes approved under the Significant New Alternatives Policy at 40 C.F.R. pt. 82, subpart G, which requires EPA to identify alternatives to ozone-depleting substances, are: (i) Powdered Aerosol F, which is marketed as KSA®; (ii) Powdered Aerosol G, marketed as Dry Sprinkler Powdered Aerosol Fixed Generators; and, (iii) C7 Fluoroketone.

The direct final rule will take effect December 18, 2012, unless adverse comments or a request for a public hearing is received. EPA will accept comments on the acceptability determinations, which the agency has also issued as a proposed rule, until October 19.

SOURCE: Lexology, 28 September 2012, By: Shook Hardy & Bacon LLP, David Erickson and Mark Anstoetter, **http://bit.ly/PrVhVv**

LATIN AMERICA AND CARIBBEAN

Call for Applications - Caribbean Journalist Workshop: Challenges for the Environment and the Ozone Layer - The United Nations Environment Programme (UNEP) is pleased to announce the training seminar "**Caribbean Journalist Workshop: Challenges for the Environment and the Ozone Layer**", to be held in Nassau, Commonwealth of The Bahamas, from 15 to 16 October 2012…
Learn more >> http://bit.ly/TGowF6

9- Panamá acoge la Reunión Anual Conjunta de las Redes Acción por el Ozono de América Latina y El Caribe, en el 25º aniversario del Protocolo de Montreal
Tras los éxitos cosechados, la región redobla esfuerzos para avanzar en la protección de la capa de ozono

Avanza el debate sobre las alternativas a los gases de refrigeración que agotan la capa de ozono

Ciudad de Panamá, 3 de octubre de 2012. En 2012 se conmemora el 25º aniversario del Protocolo de Montreal relativo a las sustancias que agotan la capa de ozono. El tema de la celebración de este año, "Proteger nuestra atmósfera para las generaciones venideras", hace hincapié en la extraordinaria colaboración y los beneficios para el medio ambiente que lograron 197 gobiernos del mundo a través del Protocolo de Montreal.

Tras la eliminación gradual del 98% de los gases que agotan el ozono en productos agrícolas, industriales y de consumo, la capa de ozono ha empezado a regenerarse y se espera que se recupere completamente en las próximas cinco décadas. Gracias a ello, se han evitado ya millones de casos de cáncer de piel y de problemas oculares, como las cataratas, aparte de otros efectos nocivos de la radiación ultravioleta para el medio ambiente.

Definitivamente, esto no habría sido posible sin el apoyo decidido de los gobiernos que son Partes en el Protocolo de Montreal y sus muchos socios internacionales y locales. Las alianzas entre estos actores han cambiado fundamentalmente la manera en que la comunidad mundial hace negociaciones, estimulando el desarrollo de nuevas alternativas y tecnologías que han servido para proteger la capa de ozono. Además, dado que la mayoría de las sustancias que agotan la capa de ozono son también potentes gases de calentamiento global, las reducciones logradas por el Protocolo han servido para apoyar los esfuerzos para hacer frente al cambio climático global.

Reunión Regional de la Red Acción por el Ozono en Panamá

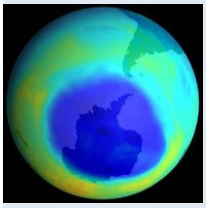
En el marco de esta celebración, tiene lugar en la ciudad de Panamá, del 3 al 5 de octubre de 2012, la Reunión Anual Conjunta de la Red Acción por el Ozono de América Latina y El Caribe, con la participación de 33 países de la región.

Las Redes Acción por el Ozono, bajo el Programa de Asistencia para el Cumplimiento del Protocolo de Montreal del Programa de las Naciones Unidas para el Medio Ambiente (PNUMA), son las principales herramientas para la capacitación y el intercambio de experiencias entre los funcionarios de los gobiernos sobre las tecnologías alternativas al uso de las sustancias que agotan la capa de ozono y la ejecución de sus respectivos programas nacionales. Creadas en 1993, con base en las regiones geográficas donde están ubicados los países en desarrollo, son también un foro propicio para la discusión y generación de consensos regionales sobre los temas de la agenda de la negoción internacional del Protocolo de Montreal.

La reunión que comienza hoy, organizada por el PNUMA y el Ministerio de Salud de Panamá, permitirá revisar las decisiones y compromisos de los países de América Latina y el Caribe, y preparar la intervención de la región de cara a la 24ª *Reunión* de las *Partes* en el Protocolo de Montreal, que se celebrará en Ginebra, Suiza, del 12 al 16 de Noviembre *2012*.

La reunión regional tendrá asimismo un componente eminentemente práctico, con la asistencia de representantes del sector privado y técnicos de instalación de sistemas de refrigeración y aire acondicionado, entre otros participantes. Se abordarán las distintas alternativas a los hidroclorofluorocarbonos (HCFC), gases refrigerantes que agotan la capa de ozono. Son varios los productos disponibles en el mercado, desde otros gases inocuos para la capa de ozono hasta derivados de los hidrocarburos. Se analizarán las ventajas de cada posible sustituto de los HCFC en los sistemas de refrigeración y climatización, tanto en términos de eficiencia energética como de coste económico y de seguridad de uso.

La protección de la capa de ozono: un camino lleno de éxitos
Si bien la comunidad internacional ha logrado mucho, la labor del Protocolo de Montreal aún no ha terminado. Las evaluaciones científicas predicen ahora una recuperación de la capa de ozono a finales de este siglo. Las predicciones se basan en la suposición de que el Protocolo de Montreal se implementará en su totalidad. Después de la exitosa eliminación de los clorofluorocarbonos (CFC), ahora sería necesario, entre otras cosas, completar la eliminación de una segunda generación de sustancias químicas, los hidroclorofluorocarbonos (HCFC), gases que agotan la capa de ozono, aunque en un grado menor que los CFC. El calendario de eliminación vigente en la actualidad se extiende hasta el año 2040.
El Protocolo de Montreal, el primer tratado internacional de ratificación universal, ha demostrado que la aplicación de ciertos principios fundamentales, como la adopción de políticas basadas en la ciencia, la utilización de un enfoque preventivo, el reconocimiento de responsabilidades comunes pero diferenciadas y el trato igualitario entre generaciones, puede resultar beneficiosa para todas las naciones.
Para más información, puede contactar con:
- Alejandro Laguna. Oficial de Información. PNUMA ROLAC, alex.laguna@unep.org
- Ministerio de Salud de Panamá. Oficina de Prensa y Relaciones Públicas. Teléfono: 00-507-512-9555
SOURCE: Programa de las Naciones Unidas para el Medio Ambiente, Oficina Regional para América Latina y el Caribe, **http://bit.ly/PA5jOM**
See also >>>
América Latina y Caribe eliminan sustancias agotadoras de ozono, Noticias de Prensa Latina, Escrito por vivian collazo, **http://bit.ly/UVkEvV**



10 - Haiti Advances in Commitments of Montreal Protocol

Panama, Oct 5 (Prensa Latina) Haiti signed the Montreal Protocol in 2000 and since then seeks to fulfil its commitments to reduce substances that deplete the ozone layer, said here Fritz Nau, from the Ministry of Environment of that Caribbean country. We do not produce these compounds and must avoid their import, even though it has a high economic cost, said the expert to Prensa Latina. In 2010, the nation was able to eliminate chlorofluorocarbons (CFCs) and now we are developing projects to replace hydro chlorofluorocarbons (HCFCs) in the refrigeration and air conditioning equipments, said Nau. We are training technical and customs personnel, and there is a very important factor, the awareness of the population and of specific sectors, he added. We know the work of Cuba and consider that country the most advanced in the region regarding the use of hydrocarbon as refrigerants, so we want to establish trade relations in that sense, he said. Cuba and Haiti have close ties of cooperation in health, education and now want to formalize this sector, stated Nau. Panama hosts until today the Joint Meeting of the Networks for Ozone Action of Mexico, Central America, South America and the Caribbean. The agenda included themes like fulfillment and ratification of the amends to the agreement, the most successful and well recognized in the area of environment at international level. The program also treated the analysis of policies and mechanisms that encourage a decreased of gases depleting the ozone layer as well as discussions on measures to achieve the freezing of the consumption of hydro chlorofluorocarbons (HCFCs), in 2013.
SOURCE: Prensa Latina, 5 October 2012, **http://bit.ly/TILXxP**

11- Casa para la protección de la capa de ozono

El Museo de Historia Natural Tomás Romay de Santiago de Cuba recibió el reconocimiento por su labor durante más de diez años en la educación ambiental y en investigaciones acerca de los efectos de la acción humana en el debilitamiento del gas ozono.
SANTIAGO DE CUBA — La delegación territorial del Ministerio de Ciencia, Tecnología y Medio Ambiente en Santiago de Cuba, declaró Casa por la protección de la capa de ozono al Museo de Historia Natural Tomás Romay, por su destacada labor medioambiental en escuelas y comunidades de la provincia.
«Este es un reconocimiento a la labor desarrollada por esta institución durante más de diez años, en los cuales realizaron concursos, talleres, charlas educativas y proyectos de investigación sobre los efectos de la acción humana en el debilitamiento del gas ozono», destacó la ingeniera Lourdes Palacio Pupo, especialista de la Unidad de Medio Ambiente.
Palacio Pupo señaló, además, que esta declaración incluye el compromiso de las agencias del Citma para ejecutar proyectos conjuntos con el Museo, que hasta ahora realizaba esta labor de forma empírica.
En el acto de reconocimiento, la especialista entregó a los trabajadores del Tomás Romay folletos, libros, boletines, afiches, plegables y otros materiales que abordan la estrategia cubana para la salvaguarda de esta barrera natural, todos editados por la Oficina Técnica del Ozono y entre los que destaca la multimedia Cuba en el Protocolo de Montreal.
La museóloga Vivian Suárez Loo agradeció el donativo por su alto valor para el trabajo medioambiental que desarrolla el Museo, que cercano a sus 46 años se reafirma como el principal espacio de educación ambiental en la provincia y como un centro gestor de la protección de la capa de ozono.
SOURCE: Diario de la juventud cubana, Edición digital, 1 de Octubre del 2012, By: Eduardo Pinto Sánchez, **http://bit.ly/P7rIZc**

ASIA PACIFIC

12- Advanced Investigations Training for Cambodia Law Enforcement Bolsters Transnational Crime Fighting in Southeast Asia

Phnom Den, Takeo Province, Cambodia, 10 October 2012 – A team of international law-enforcement specialists provided training to 45 Cambodian law enforcement officers over a two-week period in Phnom Den and Trapeang Plong in Cambodia, on the border with Viet Nam. The training targeted the illegal trafficking of environmental commodities such as ozone-depleting substances (ODS) and hazardous waste, and the illegal trade in endangered wildlife. Also addressed were drug trafficking, smuggling of migrants and human-trafficking – all of which are serious crimes which threaten security in the region.

Participants included Border Police, Gendarmerie, Customs and Immigration Department officers, Forestry Administration, and the Ministry of Environment. Some of the agencies staff the Border Liaison Office in Cambodia which facilitates greater cooperation with their neighbours.

The course was an initiative of PATROL (Partnership Against Transnational-crime through Regional Law-enforcement) which works on multiple fronts to help governments to fight transnational crime along key areas in Greater Mekong Sub-region. As a result of regional infrastructure and development projects the region is expected to increase opportunities for trade, in both legal and an unfortunate proportion of illicit trade.

The two courses, each of which took place over five days, provided officers with input on smuggling methods and trends and how to combat these issues through techniques such as surveillance, controlled deliveries, searching methods and investigative interviewing. Participants engaged in role-playing exercises and extended operational scenarios acted out on the border itself.

An important objective was to encourage agencies to cooperate more effectively with their counterparts in neighbouring countries including Thailand, Viet Nam and Laos and to exchange information and engage in cross-border investigations. Specialised training on intelligence sources and informants was also delivered.

Police Brigadier General Sophally Huort of Cambodia's National Authority for Combating Drugs (NACD) coordinates activities under the PATROL programme within the country. He commented, "Bringing together officers from so many key agencies working at the border will enhance cooperation both within Cambodia and with our neighbouring countries. The training has provided officers with important new skills which will help to detect and prevent serious organised crime".

To better equip officers with tools to detect illegal trade, UNEP donated a Refrigerant Identifier to be used within Border Liaison Offices. Deputy Director Pak Sokharavuth from the Ministry of Environment, who provided training for the new equipment, said: "The provision of this Identifier will enable rapid analysis of suspected ODS being smuggled within the region and will act as a deterrent to those attempting to commit transnational crimes which damage the environment."

Project PATROL is a collaboration between the United Nations Environment Programme (UNEP), the United Nations Office on Drugs and Crime (UNODC), TRAFFIC and the Freeland Foundation. Enforcement Trainers from the four partner organisations were joined by colleagues from the Australian Federal Police and the Australian Department of Environment.

Justin Gosling, a law enforcement advisor with UNEP said, "This training under the PATROL project helps to provide front-line and strategic-level officers with the support and skills they need to conduct pro-active investigations aimed to reduce crimes which harm people and the environment. The training delivered includes advanced, best-practice methods from the world's leading law enforcement agencies".

Similar training will take place in the forthcoming weeks at border locations in Viet Nam and Thailand.

Link to UNODC web-story on the training: **http://bit.ly/VO3Ewf**

Contact: Ms. Kakuko Nagatani-Yoshida, Policy and Enforcement Officer, OzonAction Programme, UNEP Regional Office for Asia and Pacific. Kakuko.Nagatani@unep.org

Ms. Satwant Kaur, Regional Information Officer, UNEP, satwant.kaur@unep.org

13- Shenzhen: China's First Pilot City for Hydrocarbon Air Conditioning

The city of Shenzhen is a pioneering the commercial application of hydrocarbon refrigerants to replace HCFCs in air conditioning. Market demand for hydrocarbon refrigerants is thus growing fast.

In March 2012, the Chinese media announced that the city of Shenzhen had been identified by UNEP and the Ministry of Environmental Protection of China (MEP) as the first pilot city in China to promote environmentally friendly air conditioners using hydrocarbon refrigerants. Shenzen hotels are reporting energy savings of up to 30% following the switch to hydrocarbons.

In 2011, Shenzhen Environment Protection Bureau initiated China's first training programme on hydrocarbon technologies and R22 replacement for air-conditioning technicians. The aim of the programme is to raise awareness regarding hydrocarbon refrigerants and to address concerns over safety.
SOURCE: International Institute of Refrigeration, 11 September 2012, **http://bit.ly/Rmp9lw**
See also >>>
China Evaluates the Real Risks of Hydrocarbon, International Institute of Refrigeration, 29 September 2012, **http://bit.ly/RlsWfG**

14- DENR to Begin Phasing out HCFCs in 2013

The Department of Environment and Natural Resources will begin phasing out the importation and use of hydrochlorofluorocarbons (HCFCs) in foam sprays, fire extinguishers, solvents, industrial and residential air conditioning units in January. The phase-out is in accordance with the Montreal Protocol, an international environmental agreement that commits signatory countries to gradually reduce and eventually eliminate the production and consumption of eight identified ozone-depleting substances (ODS) through different phase-out schedules.
The HCFC phase-out will be the last for the Philippines, having already successfully completed the phase-out of: three types of chlorofluorocarbons (CFCs), formerly used in foam, aerosols and refrigerants; halon, a fire-extinguishing agent; carbon tetrachloride, a dry-cleaning agent; methyl chloroform, used in manufacturing metal and plastic products; and methyl bromide, used in agricultural pesticides and fumigation of products for export.
According to Environment Secretary Ramon Paje, the phase-out will be gradual, with the freezing of HCFC importation at the 2010 base level of 162 ozone-depleting potential (ODP) tons. The level would then be reduced by 10 percent starting 2015, then by 35 percent in 2020, by 67.5 percent in 2025, and by 97.5 percent in 2030. HCFCs will be completely banned by 2040. Paje also said that the government will ensure that “affected sectors”—foam manufacturing, air conditioning, refrigeration, fire extinguishing and servicing—will have “a smooth transition to alternative substances and technologies.”
Alternatives to HCFC include hydrofluorocarbons (HFCs) for foam blowing, refrigeration, fire extinguishers and solvents; supercritical carbon dioxide (SCCO2) for foam blowing; natural refrigerants such as ammonia as cooling agents; dry chemicals and water for certain fire extinguishing applications; and methylene chloride as solvent.
The DENR has submitted its draft HCFC Phase-out Management Plan (HPMP) to the Executive Committee of the Multilateral Fund for the Montreal Protocol for consideration and approval in time for its meeting at the end of the year.
The HPMP lays down the implementation of the phase-out's investment and non-investment projects: the former would provide technical and financial assistance to priority sectors in the shift to HCFC alternatives, while the latter involves training and capacity-building, including information campaigns and technical assistance.
The DENR already began its phase-out of HCFCs in the foam sector in 2010, with the aid of the United Nations Industrial Development Organization (UNIDO).
SOURCE: BM, GMA News, 8 October 2012, **http://bit.ly/OifpYW**

WEST ASIA

15- Qatar- GOIC Holds Workshop on Implementation of Montreal Protocol

(MENAFN - Qatar News Agency) - A three-day workshop on the 'Implementation of Montreal Protocol /Industrial Development' get underway Monday at the Gulf Organization for Industrial Consulting (GOIC) premises in Doha.
Organized by GOIC in conjunction with the United Nations Industrial Development Organization (UNIDO), the workshop targets specialists and analysts of industrial statistics, macroeconomic indicators, health and environmental safety measures and technical specialists in data and statistics analysis.
It aims at providing adequate support for specialists who deal directly with analytical accounts to enhance their readiness in analyzing indicators for industry and production.
Representatives from ministries of environment, trade, industry and energy along with participants from the rest of GCC member states are taking part in the workshop.
The participants will be introduced to the role of the Montreal Protocol in achieving environmental sustainability and industrial development in the GCC countries.
They will be given a presentation on the Montreal Protocol, and the state of the ozone layer, and the Financial Mechanism of the Multilateral Fund for this Protocol, in addition to (UNIDO) as the implementing agency.
The UNIDO Protocol portfolio in the Gulf Cooperation Council (GCC), capacity building, and technology transfer will be other issues to be reviewed.
The workshop, which will be addressed by UNIDO experts, tackles the phase-out of HCFCs and methyl bromide and the destruction of the ozone layer, and reviews the alternative technology and climate benefits achieved by the Montreal Protocol.
SOURCE: MENAFN - Qatar News Agency – 2 October 2012, **http://bit.ly/SkJRDQ**

.....
جويك واليونيدو تناقشان أثر بروتوكول مونتريال على التنمية الصناعية في المنطقة"
SOURCE: Emirates News Agency (WAM) 1 October 2012, **http://bit.ly/SUYilU**

EUROPE AND CENTRAL ASIA

16- ECA Customs Cooperation Meeting on Ozone-Depleting Substances and ECA Ozone Protection Award for Customs and Enforcement Officers in Istanbul, Turkey, 9-11 October 2012

It is the second time that awards of honor have been presented to Customs and Enforcement Officers from **China, European Union, Finland, Kyrgyzstan, Macedonia FYR, Russian Federation, Serbia, Turkey and Uzbekistan** in recognition of their strong commitment to address illegal / unwanted trade in in ozone-depleting substances (ODS). This initiative is crucial to provide recognition and visibility to Customs Services in the role of implementing trade-related Multilateral Environmental Agreements such as the Montreal Protocol.

During the period of July 2010 and August 2012, the award winners reported 17 successful seizures of 72 pieces of equipments and 3016 refrigerant cylinders / containers containing more than 61 metric tons of ozone-depleting chemicals and mixtures. Informal Prior Informed Consent (iPIC) consultations prior to the issuance of trade licenses avoided 16 unwanted / illegal shipments of more than 342 metric tons of ozone-depleting chemicals and mixtures.

The representatives of China, European Union and The Former Yugoslav Republic of Macedonia presented their electronic licensing systems and UNCTAD highlighted features of the newly developed single window system. In the context of discussions how to exchange and verify licensing and trade data between countries, the European Union offered direct access to any interested country and to notify any export license issued.

Countries discussed the cooperation under iPIC system in details which assists in preventing illegal shipments of ODS and assists member countries in implementing licensing systems effectively. The network countries welcomed the Russian Federation as an active member of iPIC and The Former Yugoslav Republic of Macedonia announced during the meeting that it has joined iPIC. Also, Turkey considers joining the system in future. Participants encouraged global participation in iPIC and to help preventing illegal/unwanted trade in ODS.

All participants received access to the WCO / UNEP Montreal Protocol e-learning course and invited to use such cost-effective approach in their respective Customs Administrations. The Russian Federation will explore the possibility of using this training tool at the Russian Customs Academy. Kyrgyzstan indicated that a CD-ROM version would be useful for countries with slow Internet access and Turkey suggested producing also national language versions.

It was recognized that further efforts should be done to pro-actively outreach information on seizures, investigation and prosecutions to the Ozone Secretariat and the general public and to share alerts and intelligence information on suspicious shipments with relevant authorities of the trade partners. Electronic networks such as WCO's Customs Enforcement Network (CEN) and Environet as well as Interpol's Eco-Message are available for efficient outreach.

Participants had also the opportunity to practice the use of ODS refrigerant identifiers and to get acquainted with safety measures.

The meeting was organized by the Ministry of Environment and Urbanization of Turkey and the OzonAction Programme of UNEP's Division on Technology, Industry & Economics in cooperation with the Ministry of Environment of the Czech Republic, UNDP and UNIDO on 9-11 October in Istanbul, Turkey. The award was endorsed by World Customs Organization, the Ozone Secretariat, the

Multilateral Fund Secretariat, UNEP DTIE and the Czech Republic the implementing partner and the host country Turkey. The participants included Customs and Ozone Officers from the 11 ECA network countries (Albania, Armenia, Bosnia and Herzegovina, Croatia, Georgia, Kyrgyzstan, Former Yugoslav Republic of Macedonia, Moldova, Montenegro, Serbia, Turkey and Turkmenistan) and the 5 Countries with Economies in Transition (Azerbaijan, Russian Federation, Tajikistan, Ukraine, Uzbekistan).
Meeting documents and presentations will be available from ECA website: www.unep.org/ozonaction/ecanetwork/
Click here to Read /Download Media Briefing in English | Russian @
CONTACT: Halvart Koeppen, Regional Officer (ECA), **halvart.koppen@unep.org**
SOURCE: ECA Network, **http://bit.ly/TcblXq**

17- F-Gas : des fuites sur le 1er projet de révision

(Photo : La Rpf)

La divulgation non officielle du projet de révision de la F-Gas laisse entrevoir un phase down plus drastique que prévu et même un arrêt rapide de certains HFC. La vente d'équipements préchargés pourrait être totalement interdite et l'attestation d'aptitude inclure les fluides «naturels».

Des fuites sur les travaux de révision de la Commission européenne portant sur la F-Gas, voilà qui pourrait faire sourire. Et pourtant la divulgation très récente de ce document censé rester confidentiel ne prête pas à rire. Si l'affaire commence à faire grand bruit, il se trouve en revanche peu d'organisations gouvernementales ou non pour commenter ces premières révélations. La raison invoquée est que les pistes qui sont indiquées dans ce document n'ont encore rien d'officielles et ne peuvent donc pas être encore critiquées ouvertement. En d'autres termes, ce qui est évoqué ne doit pas encore être pris pour argent comptant. Pour autant, les premières fuites donnent la couleur de ce qui se prépare où du moins éclairent sur les prochaines âpres discussions qui vont se tenir dès maintenant dans les instances européennes.

Des remises en cause

Il semblerait que les fluides naturels relèveraient aussi de l'attestation d'aptitude ou du moins qu'ils nécessiteraient le suivi de formations spécifiques. Les HFC avec un GWP supérieur à 2150 comme le R 404a pourraient être bannis des réfrigérateurs et congélateurs dotés de groupes hermétiques en froid commercial dès 2015. Cette interdiction serait ensuite rapidement étendue aux plus fortes puissances pour toucher les installations de plus de 100 kW dès 2020. Un phase down très rapide sur la base d'une moyenne de consommation annuelle de HFC durant la période 2008 -2011 est aussi révélé. Il pourrait atteindre plus de 80 % de réduction en 2030. Autre piste, la vente d'équipements préchargés serait totalement interdite. Et les seuils de charge de 3, 30 et 300 kg évoqués dans la précédente réglementation seraient transformés selon les équipements en équivalent émission de CO2…

Pour l'heure, tous ces projets ne sont donc pas officiels comme aiment à le rappeler les protagonistes du dossier. Le document de travail doit encore faire l'objet de consultations croisées entre différentes directions générales européennes (Energie, Entreprises et industrie, Environnement…). Si l'on ne peut qu'attendre une version officielle de ce projet, on peut déjà s'interroger sur l'objectif de cette fuite qui intervient à quelques jours seulement de l'ouverture de Chillventa. Une chose est sûre, le sujet ne manquera pas d'être largement évoqué lors de ce grand rendez-vous mondial des métiers du froid.

SOURCE : La RPF, 5 Octobre 2012, Par : Pierre LE MERCIER, **http://bit.ly/Otsdvr**

18- Travaux de mise aux normes à l'aréna Ahuntsic

Le Programme de soutien à la mise aux normes des arénas municipaux a pour but de remplacer les systèmes de réfrigération utilisant le fréon 22, substance appauvrissant la couche d'ozone. Rappelons qu'une norme gouvernementale stipule qu'à compter de 2020 il sera interdit d'utiliser le fréon 22 comme gaz réfrigérant. Le gaz de remplacement sera l'ammoniac, car il n'émet aucun gaz à effet de serre.

La réalisation du projet de mise aux normes permettra de mettre à niveau les systèmes de réfrigération, de pallier aux déficits d'entretien, d'allonger la durée de vie de l'installation, de rendre l'aréna plus fonctionnel et de dégager des économies d'énergie. Les équipements rénovés pourront ainsi demeurer en activité après 2020, au grand bonheur des citoyens actifs et adeptes de sports de glace!

***SOURCE**:* Arrondissement d'Ahuntsic-Cartierville, Bordeaux, France, 13 Septembre 2012, **http://bit.ly/PfRx69**

FEATURED

Ozone Secretariat Highlights >>> http://ozone.unmfs.org/new_site/en/index.php

> Report of the Implementation Committee under the Non-Compliance Procedure for the Montreal Protocol on the work of its forty-eighth meeting - UNEP/OzL.Pro/ImpCom/48/5 - (A C E F R S)
> Annotations to the provisional agenda of the Twenty-Fourth Meeting of the Parties to the Montreal Protocol - UNEP/OzL.Pro.24/1/Add.1 - (E) - ADVANCE
> Draft decisions for the consideration of the Twenty-Fourth Meeting of the Parties to the Montreal Protocol - UNEP/OzL.Pro.24/8 - (A C E F R S)
> 24MOP: Status of licensing systems and focal points - UNEP/OzL.Pro.24/INF/2 UNEP/OzL.Pro.ImpCom/49/4 (E) - ADVANCE
> 24MOP: Evaluation of the financial mechanism of the Montreal Protocol: executive summary - UNEP/OzL.Pro.24/4 - (E) - ADVANCE
> 24MOP: Report of the Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol to the Twenty-Fourth Meeting of the Parties - UNEP/OzL.Pro.24/9 - (A C E F RS)
> 24MOP: **Application Form for Side Events and Exhibitions**
> 24MOP: **List of Hotels in Geneva** and **Information note for participants**

> **Seminar on Protecting the Atmosphere for Generations to Come**, Geneva, Switzerland, 11 November 2012 - Twenty-fifth anniversary of the Montreal Protocol on Substances that Deplete the Ozone Layer. **Provisional agenda**: (A) (C) (E) (F) (R) (S)
http://conf.montreal-protocol.org/meeting/25_anniversary_seminar/default.aspx

> **TEAP/TOCS Meetings** – Dates and Venues for 2012 @ **http://bit.ly/xIwkgj**
> **Addendum to TEAP May 2012 Progress Report (Vol.1) - Additional Information for China Essential Use Nomination 2013**
> **TEAP May 2012 Progress Report (Vol.1) - Corrigendum 1**
> **TEAP May 2012 Decision XXIII/9 Task Force Report (vol. 2) - Corrigendum 1**

The Multilateral Fund for the Implementation of the Montreal Protocol

>>> http://www.multilateralfund.org

> **Funding success - the Multilateral Fund celebrates 25 years of the Montreal Protocol**
The Multilateral Fund for the Implementation of the Montreal Protocol removed financial barriers that might have discouraged developing countries to accede to the Montreal Protocol.. **Read more**
> **The 68th Meeting of the Executive Committee** 3-7 December 2012, Montreal, Canada.
Provisional agenda for the 68th meeting has now been issued**:**
http://www.multilateralfund.org/68/default.aspx
>**The Summary of the Executive Committee 67th Meeting** is available at
http://www.multilateralfund.org/67/default.aspx
The full report of the 67th Meeting of the Executive Committee of the Multilateral Fund is available at **http://www.multilateralfund.org/67/English/1/6739.pdf**

Highlights from OzonAction >>> http://www.unep.org/ozonaction/

> **Follow OzonAction on**

> **OzonAction Webinar Series** **Click here** to learn more

Upcoming Session on**"Challenges for the phase-out of HCFC in the air conditioner sector"** scheduled on Wednesday 17 October, 18:30 (Bkk L/T)…
Learn more/Register @ https://www3.gotomeeting.com/register/521815854

> **Montreal Protocol e-Learning Module -** UNEP DTIE's OzonAction Branch and the World Customs Organization collaborated to develop the Montreal Protocol e-learning module. This interactive online training module, based on UNEP's Training Manual for Customs Officers, presents the latest information on the international policy governing the control and monitoring of Ozone Depleting Substances, as well as an overview of the technical issues including new information on chemicals and products traded and how these may be smuggled.
The module is periodically updated to take into account the developments in international trade and provides new material to reflect the changes in the Montreal Protocol, the Harmonised Systems codes, licensing systems and other relevant information. Once registered, users of the Montreal Protocol e-learning module

can follow the course at their own pace and obtain a certificate after successfully completing it. The module is also ideal as an introductory course prior to attending UNEP's Customs training workshops and is also a great refresher course for experienced officers.
Ho w to register - *Customs and Enforcement officers:* contact your country's national coordinator for the World Customs Organization to register: http://e-learning.wcoomd.org/hosting/Learning/Coordinators.pdf or contact the WCO E-learning team: elearning@wcoomd.org
National Ozone Officers who wish to use the course: *Contact your UNEP OzonAction Regional Office.*

> Virtual Exhibition on Ozone and Climate Friendly Technologies - Available from OzonAction.

Click here to learn more

> Trends Analysis Updated - Consumption and production of ozone depleting substances in developing countries have been updated and include the data for 2010 (CFCs, halons, methyl bromide and HCFCs).

The data can be accessed via > http://bit.ly/w1pqBC

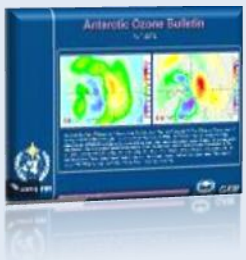
> UNEP/DTIE OzonAction Programme - Schedule of Events

READING >>>

> The Montreal Protocol and the Green Economy
The Montreal Protocol offers a good example of how international cooperation in solving a global environmental problem can have significant spill over benefits that promote a Greener Economy.
> Click here to read/ **Download publication**

> Protecting our atmosphere for generations to come, 25 years of the Montreal Protocol - The OzonAction Special Issue (OASI) features articles from international experts on many important issues including the celebrations of 25 years of the Montreal Protocol. A special issue dedicated to stratospheric ozone and climate change related issues and the implementation of the Montreal Protocol, providing the most recent information on ozone protection activities from industry, governments, NGOs and international organizations.
Click here to read/download

> Impact du Protocole de Montréal sur la protection de la couche d'Ozone et sur l'élimination du Bromure de Méthyle –
Auteur : Pr. Mohamed Besri, Membre Correspondant de l'Académie Hassan II des Sciences et Techniques,
Publié au Bulletin d'Information de l'Académie Hassan II des Sciences et Techniques n°4.
http://ozone.unep.org/Assessment_Panels/article-by-Besri-October2012-Bullertin_Academie.pdf

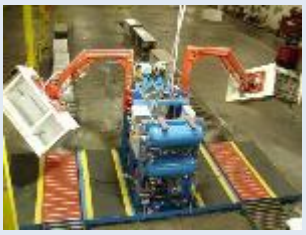


> WMO Antarctic Ozone Bulletin no. 1,2,3 - 2012
The Secretariat of the World Meteorological Organization issues bulletins containing information on the state of the ozone layer in the Antarctic at roughly two week intervals from August to November. The bulletins are based on data provided by WMO Members which operate ozone monitoring stations in the southern hemisphere and satellites to observe ozone globally. The Bulletin # 4 is planned for 12 October. **Read/download** The bulletins from the WMO website at: **http://www.wmo.int/pages/prog/arep/WMOAntarcticOzoneBulletins2012.html**

> **2020 – 2030 – 2050 - Common Vision for the Renewable Heating & Cooling Sector in Europe European Technology Platform on Renewable Heating and Cooling**… **Read/download** ftp://ftp.cordis.europa.eu/pub/etp/docs/rhc-vision_en.pdf

New Report Highlights **Climate Friendly Supermarket Refrigerant Technologies to Replace HFC "Super Greenhouse Gases",** By **Environmental Investigation Agency**, 9 October, 2012, **http://sacb.ee/QRfP72**

> **Proceedings of the 10th IIR-Gustav Lorentzen Conference on Natural Working Fluids** (GL2012). Delft, The Netherlands, June 25-27, 2012. **http://alturl.com/9thym**



Where Do Old Refrigerators Go to Die?
By Susan Carpenter, Los Angeles Times, 17 September 2012, **http://lat.ms/O9zG42**

> EcoSolutions Recycling, Inc. successfully obtains validation of its **domestic refrigerators and freezers recycling project under the mechanisms and rules of the Verified Carbon Standard (VCS)** and its brand new protocol targeting ozone depleting substances (ODS), the *«Recovery and Destruction of Ozone-Depleting Substances from Products, Methodology VM0016»*. **Read more >** **http://alturl.com/58joi**

MEETINGS / EVENTs >>>

- 2012 -

> **Dates and Venues of Montreal Protocol Meetings in 2012**

> **Fall European Cold Chain Conference & Trade Show,** "Innovation and technology throughout the cold chain." 15-16 October 2012, Madrid, Spain... **Learn more >** **http://bit.ly/X0G4L1**

> **2012 Latin American Cold Chain Summit**, 16 - 17 Oct. 2012, São Paulo, Brazil, At the 2012 Latin America Cold Chain Summit cold chain players from all over the world will assemble in São Paulo, Brazil to explore the Latin American cold chain industry… **Learn more >** **http://bit.ly/VZD3fO**

> **ASHRAE/NIST 2012 Refrigerants Conference: "Moving toward Sustainability"** 29 -30 October 2012, at NIST in Gaithersburg, Md. "This conference addresses international concerns about the impact of refrigerants on climate change, which inevitably lead to increased focus on refrigerants with a low global warming potential (GWP) applied in high-efficiency systems," Piotr Domanski, conference co- chair, said. "This includes new generations of unsaturated flourochemicals and expanded use of 'natural' refrigerants." **Learn more >** **www.ashrae.org/refrigerants2012**

> **ATMOsphere Europe 2012, Natural Refrigerants - Solutions for Europe**, 5-7 November 2012, Brussels, Belgium, . **See the preliminary programme** - **Registration and Call for Case Studies,** Registration for ATMOsphere Europe 2012 will open in early May. A call for case studies looking for innovative and real life examples of ammonia solutions for Europe will be issued in early May as well. **Learn more >** **http://bit.ly/HHJAkh**

> **2012 Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions**, 6-8 November 2012, Orlando, Florida, USA, **http://www.mbao.org/#when**

> **The International Symposium on New Refrigerants & Environmental Technology,** 8-9 November 2012, Kobe, Japan**-** sponsored by The Japan Refrigeration and Air Conditioning Industry Association (JRAIA). **SOURCE**: EJARN, **http://www.ejarn.com/news.asp?ID=20729**

Cold Climate HVAC Conference Advances Building Research and Design - ATLANTA – Papers providing an international perspective on the current state of design and practice of buildings in cold climates will be presented at the 7th International Cold Climate HVAC Conference, Nov. 12-14, 2012, in Calgary, Alberta, Canada.
ASHRAE is hosting and organizing the conference with support from the Federation of European Heating and Air Conditioning Associations(REHVA), a co-sponsor, and the Scandinavian Federation of Heating,

Ventilation and Sanitary Engineering Associations (SCANVAC), the conference originator. This is the first time the conference is being held in North America. **www.ashrae.org/ColdClimate**

- 2013 -

> **First Announcement and Call for Papers – 5th International Conference**, **Ammonia Refrigeration Technology**, IIR Commissions: B2 with B1, D1. May 9-11, 2013, Ohrid, Republic of Macedonia, **Learn more >** **http://bit.ly/MOjcHD**

> **Focuses on Research & Integrated Project Delivery: ASHRAE Announces Call for Papers for 2013 Annual Conference**, June 22-26, Denver, Colorado. The conference seeks papers on current research worldwide; core HVAC&R applications and systems; and, featured for this conference, Integrated Project Design, Energy Modeling and Building Efficiency Performance…
To submit a conference paper abstract or a technical paper and for more information about the tracks **>>** **www.ashrae.org/Denver**

Miscellaneous >>>

> **Remembering John Hoffman, Ozone Defender and Climate Protector**
John Hoffman, brilliant leader of the EPA team that saved the ozone layer, founder of the hugely successful Energy Star programs, and climate protection pioneer, passed away last week. He was only 62 years old. While the battle to curb the ozone-destroying chlorofluorocarbons had many heroes, in my mind John stood head and shoulders above all… **Read more**

> **Maldives, General Debate, 67th Session of the UN General Assembly**
27 Sep 2012 - Address by His Excellency Mohamed Waheed, President of the Republic of Maldives at the General debate of the 67th Session of the General Assembly of the United Nations (New York, 25-29 September and 1 October 2012) includes reference to CFCs and HCFCs… **Click here** to access the webcast.

We invite you to visit the **"Montreal Protocol Who's Who"**, &
Nominate an ozone layer protection champion from your country/region >>
http://www.unep.fr/ozonaction/montrealprotocolwhoswho/PageFlip.asp
Feel free to include a link on your website

Prepared by: Samira de Gobert, *OzonAction eGroup*
Reviewed by: Saiful Ridwan, *OzonAction eGroup*
If you wish to submit articles, invite new subscribers, please contact:
Mrs. Samira de Gobert, Tel. (+33) 1 44.37.14.52, samira.degobert@unep.org

###