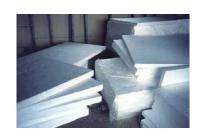
INFORMATION PAPER



UNEP DTIE OzonAction Clearinghouse June 2006









Technology, Industry and Economics

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We welcome additions and corrections to this list. For the most up-to-date list, along with a directory of other ozone protection glossaries on the Internet, please visit our web site at www.halontrader.org

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INTRODUCTION

While they are effective fire-fighting and explosion suppression agents, halons are controlled under the Montreal Protocol on Substances that Deplete the Ozone Layer and are being phased out worldwide because of their significant ozone depleting potential. Developed countries have already successfully phased out the production and consumption of new halons by January 1994. Developing countries (i.e. those which operate under Article 5 of the Protocol) froze their production and consumption of halons at a baseline level by 2002, and are required to achieve a 50% reduction from that baseline in 2005 and completely phase out halons by 2010. Halon banking is a key component in national halon management and constitutes an important tool in helping to meet these Montreal Protocol compliance targets and managing remaining halon stocks for critical uses.

Overall, this phase out schedule is succeeding globally, thanks to the efforts of national fire protection communities and Montreal Protocol focal points/National Ozone Units Fund that enabled the establishment and operation of national and regional halon banks. In many developing countries, this effort was made possible by assistance provided by the Protocol's Multilateral Fund.

A halon bank is the total quantity of halon existing at a given moment in a facility, organization, country, or region. It includes halon contained in fixed fire protection systems, portable fire extinguishers, mobile fire extinguishers and that kept in storage (i.e. containers). Halon bank management is a method of managing a supply of banked halon. It consists of keeping track of halon quantities at each stage: initial filling, installation, recycling, and storage. Avoiding demand for new (virgin) halons by re-deploying halons from decommissioned systems or non-essential applications to essential uses is a major goal. Halon banks are usually managed by a clearinghouse, i.e. an office that facilitates contact between halon owners and halon buyers.

Halon banks may be:

- Operated by the private sector, public sector or a mixture of both.
- Profit-making or non-profit oriented.
- National, regional or global in terms of area of coverage.
- Military or civilian.

The organizations on this list are focal points for anyone interested in obtaining or selling banked halon for remaining critical uses. They can also provide information concerning their country's national halon management strategies and halon alternatives.

Since the 4th Meeting of the Parties to the Montreal Protocol in November 1992, the UNEP DTIE OzonAction Programme has been providing a clearinghouse for information relevant to international halon bank management. OzonAction continues to liaise with and coordinate its activities with the other Implementing and bilateral agencies of the Multilateral Fund to encourage Parties to share information about halon bank management.

UNEP provides this contact list to support and promote halon banking on the national, regional and international levels and thereby help countries achieve their halon compliance goals under the Montreal Protocol.



National Halon Bank

Since 1993, DASCEM has managed the National Halon Bank on behalf of the Australian Government – Department of the Environment and Heritage. The National Halon Bank facility in Melbourne stores, reclaims and destroys halons and CFCs. In accordance with the Montreal Protocol, Australia's stock of halon required to meet essential use needs is stored, secured and managed at the National Halon Bank.

Australia's National Halon Strategy issued by the then Minister for the Environment, Senator Robert Hill in February 2000 included a commitment to develop the National Halon Bank as a regional facility to assist other nations with their halon and other ODS phaseout programs and management programs. DASCEM provides halon management expertise in the following areas:

- development of policy
- infrastructure development for national collection and phase out programs
- development and implementation of publicity campaigns and awareness programs
- development of support systems such as pricing and costing systems
- operation of collection, transportation and safe storage systems
- development and management of recycling programs to meet essential use requirements
- provision of recovery, reclamation, recycling and return to country of origin service
- provision of a decanting, bulk storage and destruction service

The National Halon Bank will facilitate the import and export halons, CFCs, methyl chloroform and carbon tetrachloride from countries that are signatories to the Montreal Protocol. DASCEM can arrange all of the necessary export and import permits, customs clearances, product preparation and transport to enable halons and CFCs to be recycled or safely stored for essential uses or destroyed at the National Halon Bank.

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www.deh.gov.au/atmosphere/ozone/ods/halon/ind ex.html



Austria Halons Bank

The placing on the market, use, and production of halons was regulated in August 1990 when the "Halons-Ordinance" entered into force. This Ordinance, based on the Austrian Chemicals Act, prohibits the production, placing on the market, refilling of equipment containing halons and the installation of new halons-based fire protection systems. This ban was also applied to hand fire extinguishers from 1 January 1991. Exemptions to the Ordinance applied only to:

- Some critical uses that were defined as applications necessary to protect human life and health;
- Irreplaceable objects of cultural heritage; and
- Existing fire protection systems where a conversion would have required an unreasonable effort and expense with little environmental gain.

These exemptions expired at the end of 1999 and are now replaced by the critical use exemptions of the new Halons Management Ordinance in accordance with the provisions of the new EC Ozone Regulation.

The Austrian Halons Bank is installed as a national halons bank on the basis of the Halons Management Ordinance. The Bank is managed by the Ministry of Defense under the auspices of the Ministry of Environment. The operating costs are covered by the Ministry of Defense. A Secretariat manages daily affairs, schedules meetings and reports on quantities of halons arriving and leaving the Bank. The aim of the halons bank is to ensure that Halon-1301 and Halon-1211 are available and only used for those critical applications listed in Appendix VII of the new Regulation. It also ensures the halons is available for critical uses in some military applications, in civil aviation and in the petrochemical industry. Halon owners submit halons to the bank without any claim for revenues from the sale of halons. Transportation to a collection point has to be provided by the owner of the halons. The Federal Minister of the Environment is mandated under national legislation to only supply halons for critical uses and to bear the costs of destruction, if necessary.

Contact:

Austrian Halon Bank Heeresversorgungsanstalt WELS Hessen - Kaserne Garnisonstrasse 1 A-4600 WELS Austria

Updated 26 September 2005 by Kalina Lewanska



Control Fire Systems Ltd. (CFS)

CFS is an Underwriters' Laboratories of Canada-certified, and Environment Canada-recognized

"full service" halon company, with state-of-the-art halon-1301 and halon-1211 recycling equipment, capable of reconditioning halon back to military and/or ISO specifications. CFS is a member of the Board of Directors for HARC (see above) and an active member of the Halon Recycling Corporation. CFS distributes Fike's FM-200, 3M's CEA-410 fire suppression agents a Argotec Inert Gas, FM-200, and Novec 1230.

Contact:

Darren McCaw, President Control Fire Systems Ltd. 63 Advance Rd. Toronto, Ontario Canada M8Z 2S6

Tel: +1 416-236-2371 ext. 232

Fax: +1 416-233-6814

Email: dmccaw@controlfiresystems.com

www.controlfiresystems.com

www.argotec.com

Underwriters' Laboratories of Canada

A voluntary forum working towards the development of strategies for the management of halons in Canada. Underwriters' Laboratories of Canada has established a halon bank management information centre, which covers: recycled halon availability; regulations; contacts for certified servicing/ recharging/decommissioning contractors; contacts for suppliers of certified recovery/reconditioning equipment. Underwriters' Laboratories of Canada has prepared two certification documents for the testing and certification respectively of equipment and companies involved in halon servicing/ reconditioning.

Contact:

Mr. George Unger, Project Engineer (English Language) Mr. Claude Travers, Project Engineer (French Language) Underwriters' Laboratories of Canada 7 Crouse Road Scarborough, Ontario M1R 3A9 Canada

Tel: (+1) 416 757 3611 Fax: (+1) 416 757 9540

US and Canada: 1-800-INFO ULC Email: george.unger@ca.ul.com

www.ulc.ca



Hong Kong Halon Information Center (HIC)

The Government of Hong Kong does not provide halon banking facilities such as collection, processing, storage and sale retired halon. However, the Environmental Protection Department (EDP) of the Government has set up a Halon Information Center (HIC) providing information on

companies contractors which may provide services on the deposit of decommissioned halons or purchase or retired halons.

Contact:

Ms. Vivian Wong
Halon Information Center
Environmental Protection Department
Air Management Group
5 Gloucester Road,
Wanchai, Hong Kong
China

Tel: +852 2594 6243 Fax: +852 2827 8040

Email: vwmwong@epd.gov.hk



CZECH REPUBLIC

Halon Bank of the Czech Republic - ESTO Cheb s.r.o.

The principal activities of the Halon Bank are:

- Collection and storage of halon-based extinguishing agents and other substances: Ensuring the gathering and collection of the substances used in the branch of fire protection, the production of which has been banned under the Law of Protection of the Ozone Layer of the Earth 86/95 Digest including substances, which have not been identified so far. HB CR ensures for transport of the substances and their safe storage.
- Recycling and recovery of the substances and preparation for the disposal: identification of substances (their chemical composition, physical and chemical properties, analysis of their acting in various chemical processes), arranging for preparation for recovery of the deposited substances in the framework of international co-operation and recovery of the deposited substances.
- Distribution of halons as permitted by the Ministry of the Environment (ME): arranging for the distribution of halons to replace the quantities lost during servicing, activation of the systems, accidents etc.
- Monitoring: monitoring (with an emphasis on preventing their discharge to the atmosphere) of halons, transitional substances, and the "time unlimited" substances with ODP=0 and GWP>0.
- International co-operation and awareness activities: in accordance with EU requirements, the HB is focused on exploiting capacities of the grant within the program of the World Bank and on co-operation in the enlightenment activities, i.e. informing the general public and professionals through the media (radio, TV, newspapers, leaflets, etc.) about the importance of Earth's ozone layer for all life, of activities of the Word Fund of the Environment and the ME in this area. The HB also organizes Ozone Day celebrations, issues publications and articles in both professional and lay press, and pools experience with other states as part of international co-operation.

Contact:

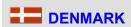
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Fax: +420/354432815 Email: info@esto.cz

www.esto.cz/english/default.htm

Update provided by Jakub Achrer 15 September 2005



Military and Airline Halon Banks

There is currently no central halon bank operating in Denmark, however the Danish military and the SAS airlines have their own internal halon "banks" or redistribution systems.

Contact:

Mr. Mikkel Aaman Sørensen Danish Environmental Protection Agency Strandgade 29 DK-1401 Copenhagen Denmark Tel:+45 32 66 01 00

Tel:+45 32 66 01 00 Email: mas@mst.dk

Update provided by this contact 27 September 2005



Estonian Halon Bank

The Estonian Halon Bank can recycle halon 2402, 1301 and 1211. The halon bank received equipment and "know how" from UNDP project as part of a project entitled "Halon bank in the Baltics".

Contact:

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Tel: +372 6 112 931 Fax: +372 6 112 901

Email: inari.truumaa@klab.ee

www.klab.ee

Update provided by this contact 10 October 2005



GIFEX

No description available.

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Mr René Barbero, CEO GIFEX 39-41 rue Louis Leblanc 92400 Courbevoie

France

Tel: (+33) 01 47 17 63 03 Fax: (+33) 01 47 17 63 05 Email: ffmi@wanadoo.fr



FAJRO Ltd.

No description available.

Contact:

FAJRO Ltd. Timót u. 6. H-1097 Budapest

Hungary

Tel: +36 (1) 280 6874 Fax: +36 (1) 280 6807 Email: fairo@fairo.hu

www.fajro.hu

Updated by Róbert Tóth 16 September 2005



Indian National Halon Bank Management and Reclamation Facility

The halon bank is established in Delhi within the Centre for Fire, Explosive & Environment Safety (CFEES), Defence Research & Development Organisation. The Facility has halon recovery and recyling machines for halon-1301, halon-1211 and halon-2402. Services provided include:

- Provide users with training on use and decommissioning of halon systems.
- Provide technical information on test, storage & transportation of halon cylinders to all users.
- Test halon extinguishers and system and assist in identification of essentiality.
- Recover old halon from system cylinder and purify it to ISO standard.

- Test old cylinders and systems for their usability.
- Certify both halon cylinder and gas for reuse.

Users of halon are encouraged to send any technical queries on the Montreal Protocol, halon use and related subjects to the Facility.

Contact:

A.K. Kapoor, Director

Tel: (+91) 1203813239, 23818856 H.S. Kaprwan, Addl. Director

Tel: (+91) 1203817255

Email: hskaprwan@hotmail.com

R.P. Singh, Jt. Director Tel: (+91) 1203810938

Centre for Fire, Explosive and Environment Safety

Brig. S.K. Mazumdar Road, Timarpur, Delhi - 110054

India

Email: halon lab@yahoo.co.in



INDONESIA

Indonesia Halon Bank (IHB)

The IHB recovers, recycles, reclaims and stores halons 1211 and 1301. Operated by the PT. GMF- AeroAsia - Garuda Indonesia Group (a government subsidiary), this halon bank serves Indonesian halon users, including aviation, who need banked halon for their essential uses. This new service is intended to help support compliance with the 2002 halon freeze and future reductions of halons. IHB's organization includes the Environment Ministry, the National Ozone Unit, and major halon users. IHB currently only serves Indonesian users, however they expect to work on a regional or international basis in the future (specifically, they are cooperating with DASCEM in Australia).

Contact:

Mr. Wilman Rajiman, Project Manager GM Workshop Quality Control & Indonesia Halon Bank Workshop II Room 239, Soekarno – Hatta International Airport P. O. Box 1303, Bush 19130, Cengkareng Indonesia

Tel: (+62-21) 5508430 Fax. (+62-21) 5508470

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Update provided by this contact 4 October 2005



Consorzio Ambiente e Sicurezza

One of two consortiums formed by companies authorised by the Italian Ministry for the Environment and Territory to recover halons from fire protection systems. It acts as a clearinghouse for the sale of recovered halons and provides information on companies recovering and selling halons.

Contact:

Mr Gianluca Indovino Consorzio Ambiente e Sicurezza Via degli Olmetti, 14 00060 Formello (RM) Italy

Tel: +39.06.9077571 - +39.06.9075384

Fax: +39.06.90775.55

Emal: mail@ambienteesicurezza.org

Update provided by Leonardo Totaro, Ministry of the Environment & Territory, 27 September 2005

Ecofire

One of two consortiums formed by companies authorised by the Italian Ministry for the Environment and Territory to recover halons from fire protection systems. It acts as a clearinghouse for the sale of recovered halons and provides information on companies recovering and selling halons.

Contact:

Ecofire

via Caldera 21/C - 20153 Milano

Tel: +39 02-40915619 Fax: +39 02-40929600 Email: info@ecofire.it

Update provided by Leonardo Totaro, Ministry of the Environment & Territory, 27 September 2005



Halon Recycling and Banking Support Committee, Japan

An independent, non-profit halon bank organization comprised of representatives of fire equipment manufacturers, and major users/organizations of halon systems.

Contact:

Mr Hiroyuki Mitsui Halon Recycling and Support Committee, Japan 2-18-2 Nishi shinbashi Minato-ku, Tokyo 105-0003

Japan

Tel: (+81) 3-5404-2180 Fax: (+81) 3-5404-7371 Email: hrbsc@red.an.egg.or.jp www.env.go.jp/en/topic/ozone.html



Hanju Chemical Co., Ltd.

Hanju Chemical Co., Ltd. produces and distributes halon-1301 and halon-1211 for domestic use only. The company also collects halons from dismantled containers, and sells them to critical end users after recycling or reclaiming.

Contact:

Hanju Chemical Co. Ltd. 326-79, Songjeong-Ri, Mado-Myun, Hwasung-Si, Kyunggi-Do, Korea

Tel: 82 31 357 5601/02 Fax: 82 31 357 5603

Email: scharleykr@hanmail.net

www.hanjufire.com

Updated 12 April 2006 by this contact



Halon Bank of Malaysia

The Malaysian Halon Bank is supervised by the Department of Environment and Fire and Rescue Department but managed by Sukiada Engineering Sdn Bhd. Its function is to collect and manage the halon surrendered by owners. The Halon Bank also supplies halon to critical sectors that have been approved by the Department of Environment as an essential user.

Contact:

Mr. Wan Mohd. Nor bin Ibrahim Malaysia Fire & Rescue Services Department Malaysia Jalan Maharajalela 50648 Kuala Lumpur Tel: (+60) 3 8888 0036/39/40

Fax: (+60) 3 8888 0030/39/40 Fax: (+60) 3 8888 0019 Email: <u>pro@bomba.gov.my</u> www.bomba.gov.my



Coöperatieve Vereniging Halonen, U.A.

The Coöperatieve Vereniging Halonen, U.A. (Halon Bank of Netherlands) provides stock management and recycling of halon-1211 and halon-1301 for its critical uses members. Recycled halon is available for its critical uses members. Members are critical users in industry, aviation and shipping sector and the military sector.

Contact:

Mr. Henk A. Kraaij (Administrator) Coöperatieve Vereniging Halonen, U.A. Wilhelminalaan 3, 3743 DB Baarn PO Box 12 3740 AA Baarn The Netherlands Tel: (+31) 35 542 7400

Tel: (+31) 35 542 7400 Fax: (+31) 35 542 7600

Email: henk.kraai@hetbranchebureau.nl

Updated 28 September 2005 by this contact



Sub-Regional Halon Bank, Nigeria

The 37th Meeting of the Executive Committee of the Multilateral Fund approved a bilateral project for Nigeria with support from German GTZ Proklima to establish a Regional Halon Bank, equipped with modern facilities capable of recovering, recycling and storing Halon-1301 for critical uses. The Halon Bank is now fully operational and provides the following services:

- Provision of recovery, recycling, storage and quality control equipment;
- Training program for operators in halon decommissioning;
- Training program in design of fire protection systems using ozone-friendly technology

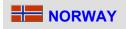
Contact:

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Fax :(+234)-9-413 59 72 E-Mail:Idrisaking@Yahoo.Com

Updated 19 October 2005 by this contact



Bergensområdets Interkommunale Renovasjonsseskap DA

The national halon bank was established in 1994 with the objectives of traceability of all halon, control of their use, storage, treatment, movement, dismantling of systems, sale, and destruction.

One company, Bergen Renholdsverk, Spesialavfallsstasjon Flesland, has been approved by the State Pollution Control Authority (SFT) to conduct national halon banking activities. In principle, as far as Norwegian users are concerned, this is a one way bank - only in, no return to Norwegian users. Ownership of the halon will remain with the original user until sold.

Contact:

Mr. Arne Iversen, Halon Bank Manager Conrad Mohrsveg 15, 5072 Bergen, Norway Spesialavfallstasjon Flesland Fleslandsveien 244, 5258 Flesland Norway

Tel: (+47) 55 22 91 33 Fax: (+47) 55991432 Email: arne.iversen@bir.as



Halon Bank of Pakistan

The Halon Bank in Pakistan is being established through the collaboration of UNIDO and the Ozone Cell, Ministry of Environment. It is designed to ensure recovery, recycling, storage and refilling of halon-1211 and halon-1301 available in the portable extinguishers and system cylinders of the fixed fire fighting installations. Central halon recovery, recycling, storage and refilling facility will be operated by Haseen Habib Corporation (Pvt) Ltd., Lahore, the largest private sector manufacturer and distributor of fire fighting equipment in Pakistan. The Halon Bank will be operational at the end of 2005 providing recycled halons for essential end-users.

Contact:

Mr. Ata-ur-Rahman Barry, General Manager Haseen Habib Corporation (Pvt) Ltd. Head Office address: 27-Nicholson Road Lahore-54000

Pakistan

Phone: (+042) 636 7222

Fax: (+042) 636 8855 or 637 4041 Email: barry@firechief.com.pk

www.firechief.com.pk

Updated 5 September 2005 by this Mr Sergei Prodan UNIDO



Philippine Halon Bank

The Philippine Halon Bank was established through the collaboration of UNDP and the Philippine Department of Environment and Natural Resources (DENR) to recover halon-1211. The halon bank has been fully operational since September 2000 and it has to recover and recycle 25 MT of halon-1211 nationwide. The recovery and recycling facility is operated by the Excelta Trading Corporation, a private sector distributor of fire extinguishers. To date the bank has only recovered halon from fire extinguishers previously produced by Excelta. Excelta currently provides banked halon to a local telecommunications company.

Contact:

Mr. Jose Fineza
Excelta Trading Corporation
San Antonio Valley I
Sucat, Paranaque
Philippines

Tel: (+632) 82 58 539 or 82 04 901-02 Email: <u>algoze@phil-ozone-desk.gov.ph</u>



State Fire Service Headquarters

The State Fire Service Headquarters provides a halon bank management "clearinghouse "role, contacting interested parties on the national and international levels (other European halon banks and UNEP DTIE). There is no national physical halon storage system in Poland. Major users have their own halon management programs and store recovered halons for their own critical uses. A few fire protection equipment distributing and servicing companies provide service in that context to their clients. They collect and recover halons from clients when switching to alternative solutions, and provide them to other clients, basically for refilling existing systems.

At present Poland has a rather balanced situation. The excess of recovered halons has not been observed on the market. It is forseen that there will be some shortages of halon-1301 in the near future. However, Poland is an "accessing country" of the European Union and is following EU regulations. With new EU regulations relating to halons, the situation in Poland might change within the next 2 years.

Contact:

Dr. Barbara Polak Adviser to the Head of Polish State Fire Service ul. Podchorazych 38 00-914 Warsaw Poland

Tel: +(48) 60 84 14 849 Email: <u>bpolak@kgpsp.gov.pl</u>



Halon Banking Center - Vatrosprem

The Halon Banking Center was established at Vatrosprem, Belgrade, in 2004, which is a local manufacturer and distributor of fire fighting equipment in Serbia and Montenegro through the

technical assistance from UNIDO and in close co-operation with the Ministry of Science and Environment, Republic of Serbia. The international project associated with establishment of this Center was funded by the Montreal Protocol Multilateral Fund. The Center is equipped with Halon-1211 and Halon-1301 recovery, recycling, storage and refilling equipment to serve the system cylinders of the fixed fire fighting installations as well as of the portable extinguishers. The Halon Bank has been in operation since the end of 2004 and it provides the recycled halons to essential end-users in the country.

Contact:

Mr. Nenad Bujandric Vatrosprem Kumodraðka 240 A.D. Belgrado Serbia and Montenegro

Email: info@vatrosprem.co.yu; vatros49@ptt.yu

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www.halon.biz

Updated 9 September 2005 by Yuri Sorokin, UNIDO



RUSSIAN REPUBLIC

All Russian Research Institute for Fire Protection (VNTIPO)

The halon bank programme is being developed within the Interagency Commission for Ozone Layer Protection at the Russian Federation's Ministry of the Protection of the Environment and Natural Resources

Contact:

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Russian Republic

Tel: (+7) 095 521-2700

Fax: (+7) 095 521-2622 or 529-8566 or 529-8160 or 529-8252 Email: Bolodian@bitex.ru or firescie@-science.msk.ru



Halon Bank of Southern Africa

The Halon Bank of Southern Africa was inaugurated in March 1994, following a mandate from the SA Montreal Protocol Working Group for Fire Protection. The Bank was set up as a non-profit organisation under the auspices of the Department of National Health. Membership is open to organisations who are fire equipment vendors, or fire equipment installers, or users or owners of halons, or any parties interested in environmental or fire protection issues. The bank's fuctions include: manage existing stocks of halon down to zero, advise on the disposal of halons,

and assist in locating halons to keep critical systems running. It also acts as a clearing agent for sales of used halon, lists companies that will recycle used halons to a recognised specification, and act as a link between RSA users and halon banks in other countries. Numerous transactions have also been handled for neighbouring countries - hence the name "Halon Bank of Southern Africa".

Contact:

Mr Peter Davey, Joint Manager Halon Bank of South Africa P O Box 15165 Impala Park 1472 South Africa

Tel: (+27) 11 397 1618 Fax: (+27) 11 397 1160 Email: fpasaprd@cis.co.za

Mr Andrew Greig, Joint Manager

Tel: (+27) 11 880 6251 Fax: (+27) 11 880 6286 Email: proproj@mweb.co.za



LPG Halon Bank

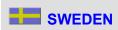
LPG manages and operates stock of halon-1301 which comes from a controlled recovery and recycling of this gas from existing fire fighting systems throughout the Spanish territory. All the stock available has been previously submitted to a chromatography testing performed by the Superior Scientific Researching Center (CSIC) from the Ministry of Science and Technology in Spain. The destination of this stock is to supply halon for essential users on an international scale.

Contact:

Ms. Jorgina Hernando
Halon Management Department
LPG Técnicas en Extinción de Incendios, S.A.
C/ Mestre Joan Corrales, 107-109
08950 Esplugues de Llobregat
Barcelona, Spain
Tel: +34 93 480 29 25

Fax: + 34 93 473 74 92 Email: jhernando@lpg.es

www.lpg.es



Military and Commercial Halon Banks

There is no centralized halon bank in Sweden. The military will maintain a bank for its own needs. Some companies will arrange a bank operation for their customers.

Contact:

Mrs Maria Ujfalusi Swedish Environmental Protection Agency S-106 48 Stockholm Sweden

Tel: (+46) 8 698 1140 Fax: (+46) 8 698 1222

Email: maria.ujfalusi@naturvardsverket.se

www.naturvardsverket.se

Updated 3 October 2005 by this contact



SWITZERLAND

Swiss Halon Banking System

The Federal Office of Environmental Protection and the Fire Equipment Manufacturer's Association are cooperating on a clearinghouse that provides fire equipment manufacturers with information on available surplus and reclaimed halon-1301. In addition, the clearinghouse provides similar information to requests for surplus halons from foreign interested parties. Certain export restriction do apply (Swiss regulations have recently changed and the country is now able to export halons for essential uses in other countries.)

Contact:

Dr Walter Brunner Envico AG Gasometerstrasse 9 CH-8031 Zürich Switzerland

Tel: (+41) 1-272-7475 Fax: (+41) 1-272-8872 Email: wbrunner@envico.ch

www.envico.ch



UNITED STATES

Alternative Refrigerant Distributors, Inc. (ARD)

ARD is a private-sector halon bank that obtains and stockpiles reserves of halon-1301, halon-2402 and halon-1211 for critical end users. The company sub-contracts most of the recycling and reclaiming material if needed. ARD also brokers, buys and sells various other gases and inorganic chemicals which are non-halon related. Most of our deals are all international. ARD staff speak various foreign languages and have representative offices in the E.E.C.

Contact:

Mr. Joe Ross, Halon Bank Manager

Miami, Florida and Representative Office in Paris, France

Tel: (+1) 786-853-3086 Fax: (+1) 305-553-1841 Email: ardtrades@aol.com www.ardtrading.com

Updated 4 October 2005 by this contact

DuPont Halon Bank

DuPont has established a halon-1301 bank for internal use only by DuPont owned facilities. DuPont is selling small lots (less than 2,000 lbs.) of excess halon-1301 in system containers as systems are dismantled. This material is in the original system cylinders and has not been recycled. Bids are solicited as small lots become available.

Contact:

Mrs. Rosie Tillman **DuPont Fluoroproducts** Chestnut Run Plaza 702, P.O.Box 80702 Wilmington, Delaware 19880-0702 **United States**

Tel: (+1) 302-999 4069 Fax: (+1) 302-999 2816

Email: rosie.l.tillman@usa.dupont.com

www.dupont.com

Updated 15 November 2005 by this contact

Halon Banking Systems (HBS)

Services include:

- Buy/sell halon: HBS buys halon 1301 and 1211, and sells halon-1301 and halon-1211 in bulk or in refills.
- Refill/recharge: HBS, through its network of affiliates, has refill capabilities in various locations. HBS and its affiliates can remove existing system cylinders, check and verify cylinders to code, refill, and re-install.
- Reclaiming: HBS securely stores halon to ASTM Standards to prevent accidental release to the atmosphere.
- Recycling: After reclaiming the Halon HBS recycles to ASTM standards and the requirements of the end users.
- Banking: HBS provides custom banking programs.
- Destruction

Contact:

Mr. Don Connor Halon Banking Systems (HBS) 2366 Rose Place St. Paul, Minnesota 55113 **United States** Tel: (+1) 651-604-2785

Toll Free North America: 800-840-7698

Fax: (+1) 651-636-0312

Email: info@halonbankingsystems.com

www.halonbankingsystems.com

Halon Recycling Corporation (HRC)

A voluntary, non-profit trade association formed to assist users of halon to inventory and redeploy the existing bank. HRC will act as a broker for sales of halon-1211 and halon-1301, provide guidelines and procedures for self-determination of essential halon use, provide a list of companies that recycle halon to standard, act as the link between halon users in the U.S. and halon banks in other countries, etc.

Contact:

Mr Tom Cortina, Executive Director Halon Recycling Corporation 2111 Wilson Boulevard Suite 850 Arlington, Virginia 22201 United States

Tel: (+1) 703-524-6636 Fax: (+1) 703-243-2874 Email: <u>harc96@aol.com</u>

www.harc.org

RemTec International

Established in 1986, RemTec International manufactures specialized equipment that reduces the chance of ozone depletion and global warming. RemTec International also reclaims and banks halocarbon products such as CFCs, halons and their alternative replacement agents. RemTec voluntarily participates in the ARI-700 certification program. USEPA lists RemTec International as a refrigerant reclaimer under 40 CFR 82.164, and they follow all regulations and laws regarding the safe handling and transportation of ODS. RemTec performs all work according to the Montreal Protocol Treaty and the US Clean Air Act as amended in 1990. RemTec International is a diversified international corporation with operations in the U.S., Canada, Europe and Australia. Its worldwide product and services include: halocarbon banking and reclamation, on-site recovery, separation of cross-contaminated halocarbons, Defender 2000 Reclaiming Systems, MARS - 2000 Bulk Reclaiming Systems, SMART Halocarbon Separation, CPT - Cylinder Piercing Technology, destruction & safe disposal, hydrostatic testing & cylinder re-certification, laboratory testing.

Contact:

Mr. Richard Marcus RemTec International Corporate Headquarters 6150 Merger Drive Holland, Ohio 43528 United States

Tel: (+1) 419-867-8990 Fax: (+1) 419-867-3279

US and Canada toll free: 888/8REMTEC

Email: richard@remtec.net

www.remtec.com

United States Department of Defence Ozone Depleting Substances Reserve

The U.S. Department of Defence (DoD) through its Defense Logistics Agency (DLA) has established an ODS reserve at the Defense Supply Center Richmond (DSCR)/Defence Depot Richmond, Virginia (DDRV). This reserve supports the military services' "mission critical" requirements for refrigerants R-11, R-12, R-114, R-500, R-502 and halons 1202, 1211 and 1301.

Contact:

Mr. Ronald W. Sibley, Program Manager U.S. Department of Defense, Ozone Depleting Substance Reserve Defense Supply Center Richmond 8000 Jefferson Davis Highway Richmond, Virginia 23297-5100 United States

Tel: (+1) 804-279-4525 Fax: (+1) 804-279-4970

Email: odsreserve@dscr.dla.mil

Updated 13 October 2005 by this contact

Wesco - Halon Management and Banking

Wesco promotes responsible halon management and banking by providing products and services that cover the full range of halon recovery, reclamation and recycling activities. These include: decommissioning halon systems; recycling to international quality standards; system servicing and recharging (on site if necessary); import/export consulting; and long-term halon bank management. Wesco 's business is worldwide in scope and is relied on by large companies and organizations in the aerospace, defense, petrochemical, marine, telecommunications, data storage and fire protection industries. Wesco is also a distributor of a full line of fire-fighting foams and dry chemicals with immediate availability.

Wesco is committed to "responsible halon management" and stringently complies with the Voluntary Code of Practice established by the Halon Recycling Corporation as well as the U.S. Environmental Protection Agency's Guidance for the EPA Halon Emission Reduction Rule (40 CFR Part 82, Subpart H). Since Wesco conducts business in many different countries, compliance with host-country regulations are strictly adhered to.

Wesco is an active member of the Halon Alternatives Research Corporation (HARC) and a Director of HARC's sister association the Halon Recycling Corporation (HRC). These organizations are in the forefront of the halon replacement and recycling issues and work closely with government agencies on issues involving halon management. Wesco is also a member of the National Fire Protection Association (NFPA) the National Association of Fire Equipment Dealers (NAFED) and the New Jersey Association of Fire Equipment Distributors.

Contact:

Mr. John Demeter Wesco – Halon Management and Banking 108 Liberty Street Metuchen, NJ 08840 **United States**

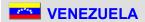
Tel: (+1) 800-433-1751, (+1) 732-452-0001

Fax: (+1) 732-452-0444

Email: jdemeter@ushalonbank.com

www.ushalonbank.com

Updated 6 October 2005 by this contact



Halon Information Clearinghouse of Venezuela

No description available.

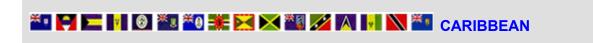
Contact:

Mr. Manuel Valencia Astudillo, President Fondo Venezolano de Reconversion Industrial y Technologica (FONDOIN) Caracas Venezuela Avenida Libertador, Centro Comercial Los Cedros, piso 5, La Florida

Tel: (+58-212) 7313932, 7312992

Fax: (+58-212) 7310015 Email: fondoin@cantv.net

1050 Caracas - Venezuela.



Halon Information Clearinghouse (HIC) for the English-speaking Caribbean

The HIC provides a range of general and technical information on halons to governments, organizations, and individuals in the English-Speaking Caribbean. On this site, you will find information on a number of issues to assist with the smooth and effective phase-out of halon in the region. The Clearinghouse is managed by the University of the West Indies (UWI), with technical and financial assistance from the Multilateral Fund for the Implementation of the Montreal Protocol, Environment Canada, and UNEP's Regional Office for Latin America and the Caribbean.

The HIC provides a link between companies in the region interested in purchasing recycled or reclaimed halon with others wishing to sell it. It also shares information on the efforts being made in the region and around the world to gradually eliminate their consumption of halon. Finally, the HIC includes links to other halon sites world-wide for relevant and up-to-date information on halon alternatives, halon recovery, recycling and reclamation, as well as other halon-related issues.

Contact:

Dr. Denise Beckles, Manager

Halon Information Clearinghouse for the English-Speaking Caribbean Department of Chemistry
The University of the West Indies
St. Augustine
Trinidad, W.I.

Tel: (868) 662 2002 x 3534

Fax: (868) 645 3771

Email: Halon_Clearinghouse@yahoo.com

sta.uwi.edu/fsa/HalonProject/



Online Halon Trader (www. halontrader.org)

The On-line Halon Trader is a service provided by the Information Clearinghouse of the UNEP DTIE OzonAction Programme as part of UNEP's work programme under the Multilateral Fund. It is designed to support national halon banking by facilitating the exchange of halons for critical uses via the World Wide Web.

In the past, clearinghouses were "off-line" and used conventional communication methods for halon banking. Having a web-enabled online halon trading clearinghouse greatly facilitates and expedites the halon exchange transactions by bringing the halon owners and halon buyers closer and make halon bank management more effective.

The On-line Halon Trader is designed for companies that use halons in critical applications, including owners, managers and/or operators of fire protection systems, fire control services and other organisations related to fire protection. It



provides a virtual marketplace where persons can match demand with supply.

Through this free service, companies that need halon for critical applications ("halon seekers") will be able to post listings of specific demand in a virtual "marketplace". Companies or halon banks that can meet this demand with recovered, reclaimed or recycled halon ("halon providers") will be able to respond or post their own listings about halons available for exchange. UNEP provides the platform for this exchange and does not in any manner become party to the transaction between those who seek halons and those who provide halons.

The On-line Halon Trader seeks to promote the responsible management of halons on both sides of halon banking transactions. As part of the terms of service agreed by anyone submitting a listing on the web site, providers of halons agree that the halons are recovered, recycled, reclaimed or banked, and they are not newly-produced ("virgin") halons being sold for the first time. Persons seeking halons who wish to access the listings agree that their organizations have endeavored to reduce, avoid, or eliminate the use of halons to the maximum extent feasible, and are seeking recovered, recycled, reclaimed or banked halons for a critical use.

For more information, visit the site at <u>www.halontrader.org</u> or contact:

Mr. Rajendra M. Shende, Head UNEP DTIE OzonAction Branch Tour Mirabeau, 39-43 quai André Citroën 73759 Paris Cedex 15 France Tel: (+33-1) 44 37 14 50

Fax: (+33-1) 44 37 14 74

Email: ozonaction@unep.fr www.unep.fr/ozonaction