Standards and Codes of Practice to Eliminate Dependency on Halons

Handbook of Good Practices in the Halon Sector

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Foreword

The stratospheric ozone layer protects life on Earth. In the 1980s the scientific community reached a consensus that the ozone layer is vulnerable to damage by atmospheric emissions of a specific family of industrial chemicals, the most notable being chlorofluorocarbons (CFCs) and the fire fighting agents halons (brominated fluorocarbons). In September 1987, nations concerned about this crisis signed the Montreal Protocol, a landmark environmental agreement that identified the major ozone-depleting substances (ODS) and established a timetable for their reduction ("phase out"). Today 175 countries -- nearly every Government in the world -- have joined the treaty and committed to the phase out of ODS.

Although they are highly effective fire fighting agents and explosion suppressants, halons are extremely potent ODS as well as significant global warming gases. The production and consumption of halons was successfully phased out in developed countries by the beginning of 1994. Developing countries ("Article 5 countries") have been given a longer phase-out period under the Montreal Protocol, and in January 2002 they will face their first important milestone: the freeze of their halon consumption at 1995-97 average levels. Developing countries currently consume about 35,000 ODP tonnes of halons annually. They will have to phase out all of this consumption plus production by 2010, except for essential uses.

The Parties to the Montreal Protocol have agreed to follow a two-pronged strategy to achieve the halon phase out. First, they will use halons only in "critical" applications where alternative technologies are not available. This requires the efficient management and redeployment of the "banks" of existing halons. Second, they are deploying alternative systems and technologies to replace halons. The first element of the strategy requires the committed application of good practices, codes and standards. This publication assists developing countries to put the first strategic element into place.

Halon consumption continues in many developing countries for newly-installed non-critical fire extinguishers and systems, for reasons including: a lack awareness of halons' impact on the environment; lack of awareness of national commitment to halon phase out; lack of regulatory structure; aggressive marketing of halons; improper servicing and maintenance practices; insufficient water supply; lack of information on available alternatives; and the sometimes prohibitive cost of imported alternatives. All of the above stimulate demand for new ("virgin") halons.

Luckily, appropriate standards and codes of practice can be powerful tools to significantly reduce unnecessary emissions of halon into the atmosphere, promote the use of alternatives to halon, promote halon banking and recycling for essential uses, and promote an orderly phase out of halons - in time to meet the requirements of the Montreal Protocol.

Developing countries as well as industrialized countries have found that there are more opportunities than challenges in the transition away from halons. In particular, the phase out of halons has created many new business opportunities and provided the chance for countries that have successfully managed the halon issue to show private and public sector leadership. The experience of those countries shows that a foundation of standards and codes of good practice are essential to a smooth and effective transition.

Based on the experience of both developed and developing countries, this Handbook is designed to help ozone officers, governments and industry in developing countries recognise the importance of standards and codes of practice in phasing out halons. It explains which types of standards and codes of practice are relevant, and provides step-by-step guidance on how to establish new (or revise existing) standards and codes of practice to promote the halon phase out. The handbook also explains where to get more information and assistance.

The Handbook is the product of collaboration between Paris-based UNEP DTIE OzonAction Programme and the Fire Protection Research Foundation, located in Boston. Additionally, world-renowned experts from developing and developed countries have also contributed to this publication. It is part of the "Eliminating Dependency on Halons" series produced by UNEP to support developing country compliance with the halon provisions of the Montreal Protocol. The Multilateral Fund for the Implementation of the Montreal Protocol has supported the production of this handbook.

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