
International Environmental Update

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Climate Change

- Kyoto Protocol - entered into force on February 16, 2005
- Worldwide differentiated target of 5.2% reduction in GHG emissions from 1990 levels between 2008-2012
- CO₂, CH₄, N₂O, HFCs, PFCs, SF₆
- EU (-8%), Japan (-6%), U.S. (-7%)
- No international policies and measures
- maintenance of national flexibility

United States

- U.S. will not become a party to Kyoto Protocol, currently focused on voluntary programs to address GHGs, rumors of change in policy
- California recently passed legislation that regulates GHGs, target is 1990 levels by 2020, 80% below by 2050
- Other states expected to follow
- US Congress expected to begin serious debate on regulation of GHGs next year

Europe

- EU emissions trading scheme - 2005
- Major industries such as oil, steel, cement, glass, paper have a CO₂ cap
- Companies over cap can purchase emission credits from those below cap
- First year, more GHG credits issued than companies emitted - drop in price
- Recent calls for transportation emissions (air travel) to be included

EU F-gas Regulation

- European Union (EU) regulation on emissions of fluorinated GHGs
- HFCs, PFCs, and SF₆ - represent 2% of total EU greenhouse gas emissions
- Dual legal base - Does not allow member states to make national regulations that are more restrictive than EU regulations
- Allows Austria and Denmark to keep existing HFC bans until 2012

EU F-gas Regulation

- Published on June 14 in EU Official Journal
- Entered into force on July 4, 2006 and will apply on July 4, 2007
- Review of regulation by the Commission within 5 years of entry into force
- Separate “Directive” to phase out HFC-134a in car air conditioners starting in 2011

EU F-gas Regulation

- **Does not prohibit the use of HFCs for fire protection**
- Most applications (air conditioning, refrigeration, fire protection) requires containment, leak inspection, labeling, training, reporting, and recovery
- For fire protection, compliance with industry standards such as ISO should meet containment and leak inspection requirements

IPCC Special Report

- Intergovernmental Panel on Climate Change (IPCC), with cooperation from Technical and Economic Assessment Panel (TEAP), completed a special report on HFCs and PFCs
- Intended to assist countries in making informed decisions when evaluating ODS alternatives
- Potential for emission reductions from fire protection is small - low emissions

EU Halon Critical Use List

- EU regulation 2037/2000 required the decommissioning of all non-critical halon systems by 2003
- Aviation critical uses:
 - In aircraft for the protection of crew compartments, engine nacelles, cargo bays and dry bays, and fuel tank inerting
 - In hand-held fire extinguishers and fixed extinguisher equipment for engines for use on board aircraft

EU Halon Critical Use List

- Review of critical use list is underway
- Currently focusing on listed military applications
- Will eventually focus on other uses such as aviation
- Revised critical use list (Annex VII) expected to be proposed in October 2007
- Should be final by early 2008

EPA SNAP Program

- Significant new alternatives policy (SNAP) proposed rule published on September 27, 2006
- Phosphorous Tribromide (PBr₃) - acceptable subject to use conditions which limit use to only aircraft engine nacelles
- Highly toxic - but very small amount used, safe for handling or in case of spill
- Will be installed on Eclipse 500 jet

Montreal Protocol

- Halon Technical Options Committee (HTOC) met in August to complete work on 2006 assessment report
- Assessment reports highlight remaining issues for the Parties related to the transition from ODS to alternatives
- Chapters include Article 5(1) countries, military, merchant shipping, destruction, halon banking, halon inventories, and civil aviation

Montreal Protocol

- Civil aviation summary:
 - Only sector that continues to be dependent on halons in new equipment
 - Has not demonstrated further progress through adoption of alternatives in new airframe designs
 - Lacks a focused plan to implement alternatives in the near future
 - Progress noted in use of HFC alternatives in lavatories of some Airbus and Boeing aircraft

Montreal Protocol

- Civil aviation summary:
 - Concern that sufficient supplies of halons will not be available to meet aviation needs 20-30 years from now
 - Halon 1211 is getting difficult to find in US and Europe (5-year supply), price is rising
 - Unless the process to design, qualify, and certify new extinguishing systems on new commercial aircraft is made a priority by industry and approval authorities, it will remain a significant barrier to progress

Montreal Protocol

- Decision XV/11 calls for the TEAP to engage in discussions with ICAO to develop a “timely plan of action” to consider “modifying the regulatory requirements that mandate the use of halons on new airframes”
- HTOC co-chairs were given responsibility by TEAP to implement Decision XV/11

Montreal Protocol

- Decision XV/11 action plan:
 - HTOC will submit an article for the ICAO Journal - Volume 60, Number 6, 2005
 - HTOC will project halon supply, cost and emissions - some information submitted, more to come
 - ICAO will issue a State Letter in 2006, inviting States to require the use of proven alternatives in newly designed aircraft

Montreal Protocol

- Decision XV/11 action plan:
 - ICAO Secretariat will introduce an ICAO/HTOC working paper at the 2007 ICAO assembly
 - Requirement for States to use proven alternatives in new airframe designs beginning 2009
- Due to change in ICAO personnel, process could be delayed 2-3 years