

# **Regulation Impact Statement**

## **Beijing Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer**

---

### **Background**

The ozone layer in the upper atmosphere absorbs most of the harmful component of the ultraviolet (UV) radiation coming from the sun. A depleted ozone layer allows more of this UV radiation to reach the earth's surface, causing harm to health and the environment. The main adverse effects include: increase in skin cancer and damage to the immune system; damage to aquatic, terrestrial and ocean ecosystems; and damage to agricultural crops and forests. Australia, because of its geography and climate is particularly affected by ozone depletion.

Australia has been a leading supporter of international efforts to protect the ozone layer since the early 1980s when initial moves were made through the United Nations to limit the global release of ozone depleting substances. The 1985 *Vienna Convention for the Protection of the Ozone Layer* encouraged intergovernmental cooperation on ozone issues but did not contain legally binding controls or targets. Following discovery of the Antarctic ozone hole in 1985 the *Montreal Protocol on Substances that Deplete the Ozone Layer* was adopted in 1987.

The Montreal Protocol is considered one of the most successful environment protection agreements in the world. The Protocol sets out a mandatory timetable for the phase out of ozone depleting substances. The timetable has been under constant revision, with phase out dates accelerated in accordance with scientific understanding and technological advances.

Australia has ratified the *Vienna Convention for the Protection of the Ozone Layer 1985* and the *Montreal Protocol on Substances that Deplete the Ozone Layer 1987*. Australia has also ratified each of the amendments to the *Protocol*: London (1990), Copenhagen (1992), Vienna (1995) and Montreal (1997).

Australia is a member of important decision-making bodies within the *Protocol* framework including the Implementation Committee, the Scientific Assessment Panel and the Methyl Bromide Technical Options Committee. An active role in these areas allows Australia a degree of influence over the nature and direction of global ozone protection issues.

Recent scientific evidence indicates that the Protocol controls are starting to achieve the expected results, with a slowing in the rate of ozone depleting substances entering the atmosphere. Assuming continued compliance with the Protocol control measures, the upper atmosphere ozone layer is expected to recover by about 2050.

The maintenance of a global alliance of nations to protect the ozone layer represents the single most effective measure for preventing depletion of the ozone layer over Australia. Australia accounts for less than 1 percent of global emissions of ozone-depleting substances so even if Australia were to dramatically reduce domestic emissions of ozone-depleting substances, its efforts could do little to offset the effects of ozone depletion.

## 1. Problem to be addressed

Notwithstanding the success of the Montreal Protocol, in 1999, the 11<sup>th</sup> Meeting of the Parties to the Protocol noted that ozone depletion was still at its peak and recovery would take a further 20 years<sup>1</sup>. The Meeting of Parties identified a number of areas where the Protocol could be strengthened to contribute further to ozone protection to ensure the recovery of the ozone layer.

The 11<sup>th</sup> MOP adopted the Beijing Amendment which introduced:

- an internationally binding cap on manufacture of hydrochlorofluorocarbons (HCFCs);
- restrictions on trade in HCFCs with non-Parties;
- a ban on the import, export and manufacture of bromochloromethane (BCM); and
- mandatory reporting to the Montreal Protocol Secretariat on volumes of methyl bromide used for quarantine and pre-shipment (QPS) purposes.

The Beijing Amendment entered into force on 25 February 2002. As at October 2004 the Beijing Amendment had been ratified by 83 Parties, including all the major developed country manufacturers of HCFCs.

### 1.1 Beijing Amendment - HCFC trade measures

The Beijing Amendment to the Montreal Protocol introduced measures which, commencing 1 January 2004, prohibit Parties from trading in HCFCs with any “State not party to this Protocol”.

*“shall include, with respect to a particular controlled substance, a State or regional economic integration organization that has not agreed to be bound by the control measures in effect for that substance.”*

Prior to implementation of these trade measures, Parties found interpretation of Article 4, para 9 of the Montreal Protocol difficult as, for the first time under the Protocol, control measures for a single substance had been imposed under two different amendments, namely Copenhagen and Beijing, with the former controlling consumption and the latter controlling production.

In November 2003 the 15<sup>th</sup> Meeting of Parties reached an agreement on the interpretation of ‘State not party to this Protocol’ which included developed countries who had not ratified the Beijing Amendment by 1 January 2004, and excluded developing countries until January 1, 2016.<sup>2</sup>

In recognition of the late adoption of the agreed interpretation of “State not Party to this Protocol”, the 15<sup>th</sup> Meeting of Parties also decided to apply a ‘grace period’ for those developed countries who were in the process of considering ratification of the Beijing Amendment and who were also in compliance with the Copenhagen

---

<sup>1</sup> More recent estimates, calculated since 1999, expect recovery of the ozone layer by 2050 with return to natural level of chlorine taking at least 100 years.

<sup>2</sup> Under the Copenhagen and Beijing Amendments control measures on HCFC production and consumption are not scheduled to come into effect for Article 5 countries until 1 January 2016.

Amendment. The grace period will end after the 17<sup>th</sup> Meeting of Parties, scheduled for November 2005.

To avoid disruption of HCFC supply to Australia, and its export markets, Australia would need to ratify, approve or accept the Beijing Amendment prior to the 17<sup>th</sup> Meeting of Parties (November 2005).

## 2. Objectives

The Government's objectives in considering whether to accept the Beijing Amendment are:

- To protect Australia from the damaging effects of ultraviolet radiation.
- Enhance Australia's international standing and global prospects for sustainable environment by participating in a global regime that encourages and assists countries to take measures to protect the ozone layer.
- Protect the interests of Australian industries and consumers by permitting the continued supply of HCFCs to support the managed phaseout process.

Protection of the ozone layer may most effectively be achieved by implementing mechanisms that minimise the use of substances that are known to deplete the ozone layer. Currently, minimising the use of ozone depleting substances is approached in two ways:

1. through the implementation of domestic policies that minimise the domestic emission of ozone depleting substances; and
2. by encouraging all countries to minimise emissions of ODS through participation in *Protocol* forums.

Government action is required to address these problems, as the depletion of the ozone layer is a global problem that requires global responses. International and domestic action to prevent the depletion of the ozone layer is most appropriately undertaken by the Commonwealth government as it has the authority to adopt internationally binding measures.

## 3. Options

Regulatory measures to implement Australia's obligations under the Beijing Amendment have been included in the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* (OPSGGMA) which commenced operation on 3 December 2003.

The decision to implement the measures outlined in the Beijing Amendment prior to acceptance was based on the following:

- The measures would provide benefits to Australia in terms of ozone protection;
- There was a negligible impact on industry and government;
- Cost-effective option as major amendments to the former *Ozone Protection Act 1989* (OPA)<sup>3</sup> were already underway and the minor changes relating to the Beijing Amendments could be easily included in the package.

---

3

The case for implementing the Beijing Amendment through legislative changes was made in the Regulation Impact Statement prepared to accompany the *Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003*. A summary is provided in the Appendix.

This RIS will therefore not revisit the possibility of declining to implement the Beijing amendment requirements – it will only consider the alternatives of non-acceptance (the status quo) or acceptance of the Beijing Amendment.

### **3.1 Acceptance of the Beijing Amendment**

Acceptance of all amendments to the *Montreal Protocol* sends a clear message to all countries that the adoption and implementation of measures under the *Protocol* and its amendments is vital for the long term recovery of the ozone layer. By re-affirming its own commitment to the *Protocol*, Australia's acceptance of the Beijing Amendment sends a signal to all Parties to continue their support. It also sends a message to non-parties to consider joining international moves for ozone protection.

As Australia does not manufacture HCFCs it is fully dependant on imports to meet domestic demand. Therefore, accession to the Beijing Amendment at this time would also ensure that Australia continues to have access to the supplies of HCFCs necessary for Australian industries to support the planned phase out of these substances. This phase out program involves imports of continued but declining quantities of HCFCs as processes and equipment are changed in a cost-effective manner.

The Regulation Impact Statement for the Act amendments concluded that adoption of the Beijing obligations through changes to the *Ozone Protection Act 1989* would not significantly alter the current or future practices of industry or Government (See Appendix).

### **3.2 Non-acceptance of the Beijing Amendment**

Non-acceptance by Australia may be perceived by large global consumers of ODS and other Parties to the *Protocol* as retreating from international ozone protection measures. In turn, other countries may downgrade their own efforts and increasing amounts of ODS would be released into the atmosphere where they damage the ozone layer over Australia. Preventative action at a global level offers greater prospect for protecting Australia from the adverse effects of increased UV-B radiation than any unilateral action which Australia might contemplate, given that the volumes of ODS used globally far exceed Australia's consumption levels.<sup>4</sup>

---

<sup>4</sup> Over the period 1988-1998, Australia consumption of ODS accounted for approximately 1.4 percent of global consumption. In the case of HCFCs which will be most affected by the Beijing Amendment, Australia accounted for just 0.8 percent of global consumption. See Environment Australia, Task Force to Review the Commonwealth's Ozone Protection Legislation, *Report - A Review of the Legislative Framework and Regulatory Options Supporting Papers*, Canberra, January 2001, p.39.

Non-acceptance would also result in a critical disruption to Australia's domestic ODS phaseout program and affect its ability to supply HCFCs to other Montreal Protocol Parties in the region.

### 3.2.1 Disruption to domestic HCFC phaseout program

The current domestic phaseout strategy seeks to provide a structured, stepwise reduction in consumption of ozone depleting substances.

HCFCs were developed as less potent alternatives to chlorofluorocarbons (CFCs). Although HCFCs do still deplete the ozone layer, their potential to do so is generally much less. The ozone depleting potential of HCFCs is typically between 1% and 10% of the potential of CFC-12 (one of the most commonly used CFCs prior to its phase out).

HCFCs are used in Australia in a wide range of industries. Most importantly, they are used as refrigerants in large capacity air-conditioning and refrigeration systems, as foam-blowing agents, and in fire protection systems. Access to these substances is therefore critical to Australian industry and the community.

HCFCs are regulated under the OPSGGMA through a license and quota system that limits, and gradually reduces the total volume of HCFCs that can be imported or manufactured.

Australian industry has already agreed to phase-out HCFCs at a rate that substantially exceeds *Montreal Protocol* requirements. This agreement has been in place since the mid-1990s and was negotiated with the full assistance of industry as the fastest phaseout practicable allowing industry to move to economically and environmentally acceptable alternatives.

The OPSGGMA limits annual HCFC imports to approximately half the amount Australia is allocated under the *Montreal Protocol*. These supply restrictions will see Australia achieve minimal consumption of HCFCs by 2014, significantly in advance of the *Montreal Protocol* 2020 total phaseout date<sup>5</sup>.

In addition to an advanced phaseout schedule, industry has addressed the issue of reducing emissions from used ODS. Refrigerant Reclaim Australia is a non-profit organisation established by industry in 1993 to promote the recovery, recycling and destruction of ozone-depleting refrigerants. Industry pays a voluntary levy on all ozone-depleting refrigerants imported into Australia. The levy is used to finance the destruction of surplus ozone-depleting refrigerants, and to provide rebates to compensate contractors and wholesalers for their efforts in collecting and forwarding this material.

Imports of HCFCs in 2003 totalled 2654 metric tones with an approximate wholesale value of \$32 million and retail value of \$64 million. The majority of Australia's HCFC trading partners have ratified the Beijing Amendment. It is estimated that loss of these suppliers would impact on at least 75% of current imports. The only HCFC manufacturer that Australia would retain access to would be the People's Republic of China. There are cost and quality issues associated with supply from this source. In addition, China does not manufacture all of the HCFC types that would be required.

---

<sup>5</sup> Up to 0.5% of base level consumption can still be used until 2030 for servicing existing equipment.

Australia's access to HCFCs from China would cease if China were to accept the Beijing Amendment.

The loss of supply of HCFCs would have a significant impact on all sectors of industry currently using HCFCs. Imports of HCFCs service approximately 200,000 pieces of mainly air conditioning and refrigeration equipment annually. The cost of retrofitting this equipment is estimated at \$800 million<sup>6</sup>. Some equipment would effectively become redundant, as retrofitting is not possible in all cases, and would need to be replaced in the short term rather than at the end of its operational life. In addition to the cost of retro-fitting or replacement of the equipment, business would experience significant loss of productivity over the change over period.

Most of the HCFC dependent equipment is of the large capacity type which is used in industrial and commercial applications. Some of the areas that would be impacted include critical services eg hospitals and blood banks, industries handling perishable foodstuffs or goods, and the commercial fishing industry. An inability to service HCFC refrigeration and air-conditioning systems in ocean-going vessels visiting Australian ports would also impact on Australian exports.

The foam-blowing industry in Australia, has a current estimated value of \$100 million. Loss of domestically manufactured foam would also impact on a significant number of manufacturing industries which use the foam in manufactured products such as pre-fabricated insulated panels for buildings, insulation for water heaters, insulation for domestic fridges and picnic coolers.

Disruption to the agreed domestic phaseout schedule would undermine the commitment made by industry in terms of long term planning and investment. This would damage the existing positive relationship between government and industry, a relationship essential to the overall success of the domestic phaseout program for all ozone-depleting substances.

### 3.2.2 Supply of HCFCs to Regional Countries

Australia currently supplies HCFCs to countries in the region, including New Zealand and Pacific Island Countries (PICs) through the re-export of bulk product by Australian companies. Although the volume re-exported is small, 42.5 metric tonnes in 2003, the contribution to existing phaseout strategies can be critical. Australia's supply of HCFCs to other countries would be disrupted if it does not accept the Beijing Amendment.

At present, PICs still use chlorofluorocarbons (CFCs) to meet their refrigeration and air conditioning requirements however, in line with *Protocol* restrictions (that Australia is assisting the PICs to meet<sup>7</sup>), the PICs will look to alternative substances including HCFCs and non-ozone depleting hydrofluorocarbons (HFCs) and hydrocarbons (HCs).

---

<sup>6</sup> Meeting of the Australian Fluorocarbon Council (AFC), 13 December, 2004.

<sup>7</sup> Through the Montreal Protocol financial assistance program Australia and United Nations Environment Programme are supporting a "Regional Strategy for the Implementation of the Montreal Protocol in Pacific Island Countries". The strategy aims to assist with an accelerated and sustained CFC phase out in the Region and to ensure complete phase out of consumption of all other ODS (except for HCFCs and methyl bromide used for "quarantine and pre-shipment applications") by mid 2005.

In the event that Australian sources of HCFCs were no longer available in the future, these countries could face the higher cost options of:

- buying HCFCs from non-parties to the *Protocol* at higher prices;
- modifying and replacing refrigeration and air conditioning equipment which is HCFC dependent;
- purchasing alternatives such as HFCs at higher prices; or
- abandoning equipment and its applications.

Should this occur, recipient countries might view Australian failure to accept the Beijing Amendment as an unfriendly or unhelpful act, with possible diplomatic ramifications. Whilst these nations could access supplies from China or India (which are not subject to export prohibitions under the *Protocol*), the small quantities and high prices for transport would make this a less cost-effective option.

Non-acceptance of the Beijing Amendment has several disadvantages:

- It does not promote Australia's interest in preventing further depletion of the ozone layer;
- Loss of HCFCs would not protect the interests of Australian industries by compromising the agreed managed HCFC phaseout process;
- It sends a signal that Australia's interest in global ozone protection interest is waning at a time when depletion of the ozone layer is at its greatest.

#### **4. Assessment of impacts (cost and benefits ) of acceptance**

Acceptance and implementation of the Beijing Amendment will affect Australia in through continued access to supply and trade in HCFCs.

Note that the RIS prepared for the amendments to the *Ozone Protection Act 1989* assessed controls on the use of bromochloromethane as being the main impact of the Beijing Amendment obligations (See Appendix). However, since this assessment the decision by the Parties relating to continued trade in HCFCs has provided a further, much more significant, impact which needs to be assessed.

##### 4.1 Cost-Benefit Analysis – Continued supply and trade in HCFCs

Australia does not manufacture HCFCs and is fully dependant on imports to meet domestic demand. Australia's acceptance of this Amendment would ensure that Australia is able to meet domestic demand for these substances. Avoidance of disruption to the agreed phaseout schedule would support the commitment made by industry in terms of long term planning and investment.

##### ***Business***

The benefits to business of continued/uninterrupted supply of HCFCs are:

- continuance of existing agreed phaseout schedule;
- security in planning based on existing phaseout schedule;
- stability in the retail price for HCFCs

- continuance of agreed programs to shift to non-ozone depleting substitutes for HCFCs.

As outlined in section 3.2.1, disruption to the supply of HCFCs could have a significant impact on Australian industries.

There are no clear additional costs to Australian industry from this Option as required obligations have already been included in the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* which commenced operation on 3 December 2003.

### **Government**

The direct costs to Government are those of administering the processes of acceptance and of enforcing existing legislative arrangements. The costs of the acceptance process are one-off and expected to be small.

Enforcement costs are also expected to be relatively small given the limited number of HCFC exporters involved, and the fact that all licence holders are made aware of their obligations not to export to certain countries via conditions upon their licences.<sup>8</sup> An independent flagging system by customs prevents unlicensed exports of HCFCs. This licensing system is already in place and will not require additional funds to maintain.

Acceptance involves minor costs for Government as it involves minimal extra administration and has a low cost of enforcement.

The benefits to Government take the form of enhancing Australia's image in future international negotiations concerning ozone protection and, potentially, other environmental issues. Australia's adoption of the Beijing Amendment will cement Australia's reputation of support for international cooperation in support of environmental protection and its acknowledged role as a leader in influencing the attitudes of other countries towards ozone related environmental issues.

Any gains through future ozone protection negotiations may be relatively small, given that the Beijing Amendments have emerged after more than 10 years of international reform and address shortcomings at the periphery rather than the core of the *Protocol*. Similarly, the degree to which Australia's credentials in relation to ozone protection might be used to enhance its position in international negotiations on issues such as global warming and climate change is difficult to determine but is not expected to be great given the unique nature of each environmental issue.

### **Consumers**

There are no costs to Australian consumers of uninterrupted supply of HCFCs as this would enable industries to continue to service the Australian market at competitive prices.

### **Community**

There are no costs to the Australian community from acceptance of the Beijing Amendment.

The benefits to the community stem from Australia's actions helping to promote and ensure compliance with the *Protocol* at an international level. To the degree that Australia's adoption results in a take-up of the Beijing Amendment by other countries and encourages higher levels of general acceptance of the *Protocol's* framework

---

<sup>8</sup> Only 8 licence holders currently exist and all are members of the Australian Fluorocarbon Council.



around the world, a positive environmental outcome for Australia can be expected. A smaller and less important benefit can also be expected if Australia's actions prove instrumental in accelerating ozone protection reforms in certain Pacific Island nations which rely on Australia for supply of HCFCs at some point in the future but are unlikely to formally adopt the Copenhagen Amendment and Beijing Amendment.

These benefits take the form of lower levels of depletion of the ozone layer of the atmosphere and consequent gains through a lower incidence of skin cancers and cataracts in humans, less damage to human immune systems, reduced pressures on the health care system and improved quality of life, higher industrial productivity and an extended duration for working lives, improved agricultural and forestry productivity, enhanced productivity and sustainability of Australia's marine and other natural resources, a lower incidence of diseases among animals and a longer product life for UV-B sensitive building materials including plastics and paints.<sup>9</sup>

It is not possible to quantify these benefits due to the difficulty in gauging Australia's influence over other countries with reasonable accuracy. Nevertheless, such benefits are tangible and could be significant. The global benefits of international action by parties to the *Protocol* are well documented in a recent Canadian study which point to global gains from the *Protocol* in the period 1987-2060 of more than US\$459 billion in 1996 prices, consisting of US\$238 billion from reduced damage to fisheries, US\$191 billion from reduced damage to agriculture and US\$30 billion from reduced damage to building materials. These estimates exclude dollar values for human health related benefits which the report acknowledged as highly significant.

In a recent study of Australia's share of the global benefits of the *Protocol* for the period 1989-2060, a Commonwealth Task Force estimated gains to Australia of AUS\$7.4 billion in 1996 prices.<sup>10</sup> This consisted of \$4.6 billion in reduced damage to fisheries and agriculture, \$2.3 billion in reduced damage to human health and \$0.5 billion in reduced damage to building materials. Taken together, the Canadian and Task Force studies point to substantial advantages to Australia from maintaining high levels of international commitment to ozone protection measures.

**Table 1**  
**Summary of Impact by Stakeholder Group**  
**- Adoption of Beijing Amendments Relating to HCFCs**

	<b>Costs</b>	<b>Benefits</b>
<b>Business</b>		Access to HCFC supplies necessary to an efficient and cost effective phase out process.
<b>Government</b>	Administrative costs associated with acceptance, and enforcing existing legislative provisions	Enhancing Australia's international image and negotiating position in the area of ozone protection and,

<sup>9</sup> The lines of causality and nature of benefits associated with emissions of ODR, depletion of the ozone layer and damage to human health and the environment are detailed in ARC Applied Research Consultants, *Global Benefits and Costs of the Montreal Protocol on Substances that Deplete the Ozone Layer*, Environment Canada, Ottawa, 1997.

<sup>10</sup> The quantitative application of this and other data to Australia is considered in Task Force to Review the Commonwealth's Ozone Protection Legislation, *Report - A Review of the Legislative Framework and Regulatory Options*, Environment Australia, Canberra, January 2001.

		potentially, other environmental issues.
<b>Consumers</b>	None.	None.
<b>Community</b>	None.	Lower levels of global ozone depletion and consequent tangible benefits for Australia in areas which include human health, primary industry production and the longevity of building materials.

## 5. Stakeholder Comments

Australia has had considerable ongoing consultation with government, industry and interest groups concerning the negotiation of the *Montreal Protocol on Substances that Deplete the Ozone Layer*.

Various Commonwealth agencies (the Department of Foreign Affairs and Trade, the Attorney-General's Department, the Department of Agriculture, Food and Fisheries, Department of Health and Ageing) and State and Territory Governments have also been consulted concerning the negotiation and progress of the Montreal Protocol.

Implementation of Australia's obligations under the Beijing Amendment has already occurred with legislative Amendment of the *Ozone Protection and Synthetic Gas Management Act 1989* in December 2003. A comprehensive consultation process was undertaken regarding the proposed amendments, commencing in 2001 and including all State and Territory Governments, industry, affected Commonwealth Departments and the community. All parties consulted either supported, or did not register any objection to, acceptance of the Beijing Amendment (See Appendix).

At the time of the legislative amendments, in 2003, the Australian Fluorocarbon Council (AFC), which represents the interests of all HCFC import licence holders, indicated that it was not opposed to Australia accepting the Beijing Amendment.

In December 2004 the Department of Environment and Heritage met with the Australian Fluorocarbon Council (AFC) to discuss the implications of Australia not accepting the Beijing Amendment prior to the 17<sup>th</sup> Meeting of Parties in November 2005.

AFC indicated strong support for acceptance of the Beijing Amendment at this time. AFC supports acceptance as an appropriate action for the Australian Government given its established role in global ozone protection and the limited costs associated with acceptance. AFC believes that non-acceptance, resulting in a loss of access to supply of HCFCs to manage the phase out program, would cause massive disruption to the Australian economy and impose commensurate costs on the Australian community. AFC also believe this would bring the existing Australian HCFC phase out program, recognised as one of the best in the world, into disrepute.

## 6. Sustainable Development

Ecologically sustainable development (ESD) has been defined for Australia as "using, conserving and enhancing the communities resources so that ecological processes so that ecological processes, on which life depends are maintained and the total quality of life, now and in the future, can be increased".

Acceptance of the Beijing Amendment supports the Commonwealth Government's commitment to ESD. The Commonwealth's National Strategy for Ecologically Sustainable Development describes three core objectives of ESD. These are:

1. to enhance individual and community well being and welfare by following a path of economic development that safeguards the welfare of future generations;
2. to provide for equity within and between generations; and
3. to protect biological diversity and maintain essential ecological processes and life support systems.

Accession to the Beijing Amendment is a cost effective way of working towards these objectives and is essential to protecting the wellbeing and welfare of current and future generations. Accession to the Amendment is also critical in protecting biodiversity and maintaining essential ecological processes. Increased UV radiation resulting from ozone depletion has the potential to seriously disrupt natural ecosystems.

Ozone protection is also critical in protecting biodiversity and maintaining essential ecological processes. Increased UV radiation due to ozone depletion has the potential to seriously disrupt natural ecosystems. Creating a strong national regulatory system in association with acceptance of all amendments is the most effective way of Australia being able to ensure an effective global response to this global problem.

## **7. Conclusion**

Acceptance will enhance Australia's capacity to influence international efforts to address ozone depletion; and demonstrate Australia's commitment to supporting effective and balanced approaches to global co-operation on the environment.

Acceptance will not significantly alter the current or expected structures of the Australian market for ODS. Acceptance of the Beijing Amendment would: ensure that Australia has access to sources of HCFCs necessary for Australian industries through to the planned final phase out of these substances in 2030.

Although acceptance will involve some costs to the government, these costs are more than accounted for by the considerable indirect benefits that stand to be gained by Australia through the effective maintenance of an international ozone framework.

An analysis of the costs and benefits leads to the conclusion that acceptance of the Beijing Amendment represents the best option for the interests of all Australians.

## **8. Implementation**

Implementation of the Beijing Amendment will be achieved through the Commonwealth's *Ozone Protection and Synthetic Greenhouse Gas Management Act*

1989, which commenced operation on 3 December 2003.

The Department of the Environment and Heritage is the Commonwealth's lead agency on issues relating to the Montreal Protocol and responsibility for the implementation of this Amendment would be a natural extension of that role.

The *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* requires the Minister for the Environment to create and maintain a Register of Montreal Protocol Countries that will be used to identify which countries Australia may trade with for each ozone depleting substance.

The Act also prohibits the import, export and manufacture of BCM without an essential uses licence granted under this legislation.

The Department of the Environment and Heritage has already liaised with the Australian Customs Service to amend the *Customs (Prohibited Imports) Regulations 1956* and the *Customs (Prohibited Exports) Regulations 1958* to include BCM with other ozone depleting substances already included in these regulations.

Australia's obligations to report to the Secretariat the amount of methyl bromide that it uses annually for quarantine and pre-shipment applications can be implemented administratively. Australia already voluntarily reports this information to the Secretariat each year.

The Department of Environment and Heritage will continue to work directly with AFC, APMA, the University of Melbourne and other affected stakeholders to ensure comprehensive awareness and enforcement of the regulations amongst importers of HCFCs and BCM.

## **9. Review**

Section 68 of the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* provides the Minister shall, at the end of each financial year, prepare a report on the operation of the Act during that year and cause a copy of the report to be laid before each House of Parliament within 15 sitting days of that House after the preparation of the report is completed. Consequently, the operation of the Beijing Amendments as a provision of the *Ozone Protection Act 1989*, would form part of the annual report to the Commonwealth Parliament.

The *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* has been the subject of a comprehensive review (completed in January 2000) in accordance with the National Competition Principles Agreement.

---

<sup>11</sup> Formerly the *Ozone Protection Act, 1989*.

## Appendix

### Summary of the Regulation Impact Statement prepared to accompany the *Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003*

Obligations under the Beijing Amendment impact upon three ozone depleting substances, HCFCs, bromochloromethane (BCM) and methyl bromide.

- Cap on HCFC manufacture: HCFCs were not manufactured domestically. The last domestic manufacturer of HCFCs ceased operations in 1995 and a re-emergence of production is unlikely.
- Controls on trade in HCFCs: Imports and exports of HCFCs were already controlled through the existing licensing provisions of the *Ozone Protection Act 1989*. The RIS indicated that there could be minor costs to business and government from reduced opportunities to re-export HCFCs to countries which had not ratified the Copenhagen Amendment, especially Pacific Island nations. However, the 15<sup>th</sup> Meeting of the Parties subsequently agreed to allow trade in HCFCs with developing countries until 1 January 2016. This means that the decision to implement the requirements of the Beijing Amendment will not have the impact on re-export of HCFCs to Pacific Island nations which was anticipated in the RIS.
- Ban on bromochloromethane: Australia did not manufacture BCM and imported relatively small quantities of this substance, mainly for use in laboratories as an agent in chemical synthesis. Since 1998, the total annual volume of imported BCM had averaged less than 1 kilogram and demand was intermittent.
- Methyl bromide reporting: Australia already reported its use of methyl bromide for quarantine and pre-shipment (QPS) through information provided by applicants for methyl bromide licences issued under the *Ozone Protection Act 1989*.

The RIS concluded that adoption of the Beijing Amendment obligations through changes to the Ozone protection Act 1989 would not significantly alter the current of future practices of industry or Government. The RIS assessed the controls on the use of bromochloromethane as being the primary impact of the Beijing Amendment obligations.

#### Control of bromochloromethane

The Beijing Amendment prohibits import and manufacture of BCM while continuing to allow access to any stored reserves or to holders on an essential uses licence<sup>12</sup>. The stakeholders most affected by an import ban are research organizations such as universities and a small number of pharmaceutical companies.

These organizations use the substance as a reactive agent in the synthesis of chlorocarbene, reactive anions and other small to intermediate-sized molecules for eventual use in the production of higher value pharmaceuticals, diagnostic kits, agricultural chemicals (fungicides, insecticides and herbicides), lubricants, inks, paints and other coatings. Australia's adoption of the Beijing Amendment would require that these organisations either cease to conduct such experimentation or shift to alternative substances and/or processes.

---

<sup>12</sup> A 'use' can only qualify as essential if it is necessary for health or safety, or is critical for the functioning of society, and there are no available technically and economically feasible alternatives that are acceptable from the standpoint of environment and health.

The Beijing Amendment also requires Parties to only trade in BCM, for essential uses, with other Parties and to report the quantities used to the Secretariat of the Montreal Protocol.

*Since the domestic regulations relating to BCM came into force (December 2003), the Department of Environment and Heritage, who administer the OPSGGMA, have not registered any licence activity relating to BCM.*

Cost-Benefit Analysis - Bromochloromethane (BCM)

The Regulation Impact Statement prepared to accompany the *Ozone Protection and Synthetic Greenhouse Gas Legislation Amendment Bill 2003* assessed the impact of acceptance of the Beijing Amendment in relation to BCM.

The RIS concluded that:

- there were no significant costs or benefits to business;
- the costs to Government were minimal administrative costs while the benefits took the form of enhancing Australia’s image in future international negotiations;
- costs to consumers were not prohibitive; and
- there were no costs to the community but there were benefits based on Australian’s actions signalling to other countries the importance of international cooperation to achieve effective levels of ozone protection.

**Summary of Impact by Stakeholder Group  
- Adoption of Beijing Amendments Relating to BCM**

	<b>Costs</b>	<b>Benefits</b>
<b>Business</b>	Small loss of commission from the import of very limited quantities of BCM (less than 1kg over several years).	Potential for new commission through supply of alternative substances.
<b>Government</b>	Administrative costs associated with acceptance and enforcing legislation.	Enhancing Australia’s international image and negotiating position in the area of ozone protection and, potentially, other environmental issues.
<b>Consumers</b>	Moving to adopt alternative substances or processes or to in-house manufacture of BCM. If in-house manufacture is pursued, additional costs associated with obtaining an essential uses licence will be incurred.	Some improvement in occupational health and safety arising from a shift from BCM which has high toxicity.
<b>Community</b>	None.	Lower levels of ozone depletion and consequent tangible benefits in the areas of human health, primary industry and damage to building materials.

### Consultation

The major distributors of BCM - Merck Pty Ltd, Sigma Aldrich and Selby Biolab - all indicated that they would not be significantly disadvantaged by acceptance.

The University of Melbourne, whose views were taken to represent the position of other research organizations around Australia, indicated that while acceptance would remove a minor but occasionally very important weapon from the chemist's armoury, alternatives were available to cover most contingencies. When no alternatives could be found, scope for these organizations to apply for an essential uses licence, represented an acceptable avenue for dealing with the restrictions which acceptance would impose.

The Australian Pharmaceutical Manufacturers Association (APMA), representing the interests of most domestic pharmaceutical companies, registered no objection to acceptance.