

***Handbook on  
Critical Use Nominations  
for Methyl Bromide***

***Version 6***

***Prepared by the  
Technology and Economic Assessment Panel  
and the  
Methyl Bromide Technical Options Committee***

December 2007

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# Handbook On Critical Use Nominations For Methyl Bromide

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## Acronyms

CFC	-	Chlorofluorocarbon
CUE	-	Critical Use Exemption for Methyl Bromide
CUN	-	Critical Use Nomination
EMOP	-	Extraordinary Meeting of the Parties
MOP	-	Meeting of the Parties
MB	-	Methyl Bromide
MBTOC	-	Methyl Bromide Technical Options Committee
MBTOC - S	-	Methyl Bromide Technical Options Soils Sub-committee
MBTOC - QSC	-	Methyl Bromide Technical Options Quarantine, Structures and Commodities Sub-committee
ODS	-	Ozone-Depleting Substance
OEWG	-	Open-Ended Working Group
Pic	-	Chloropicrin
QPS	-	Quarantine and Pre-Shipment
TEAP	-	Technology and Economic Assessment Panel
TOC	-	Technical Options Committee
UNEP	-	United Nations Environment Programme

# Chapter 1 - Introduction

## 1.1 Genesis and Purpose of Handbook

Methyl bromide was listed as a controlled substance in Annex E of the Protocol under its Copenhagen Amendment, which was adopted by the Parties to the Montreal Protocol at their Fourth Meeting. Control measures for methyl bromide are set out in Article 2H (see Appendix A for full text) of the Protocol. These control measures include allowance for a level of production and consumption of methyl bromide to continue after production phase-out where this material is necessary to satisfy uses agreed by the Parties to be critical uses.

At the Seventh Meeting of the Parties, it was decided to review the applicability of existing essential use criteria and process with regard to evaluating critical uses of methyl bromide in the agricultural sector. The Parties agreed to a process in Decision IX/6 (full text of this and other relevant decisions mentioned are given in Appendix B) for nomination for critical uses of methyl bromide.

Noting the need for the non-Article 5 Parties to have adequate guidance to enable them to submit nominations for critical-use exemptions for consideration at the Fifteenth Meeting of the Parties in 2003, Decision XIII/11 of the Thirteenth Meeting of the Parties called upon the Technology and Economic Assessment Panel (TEAP) to:

“...prepare a handbook on critical-use nomination procedures which provides this information, and the schedule for submission which reflects that currently employed in the essential-use nomination procedure...”

TEAP, with the assistance of its Methyl Bromide Technical Options Committee (MBTOC), developed the "Handbook on Critical Use Nominations for Methyl Bromide" in response to this request.

This Handbook describes the nomination process for critical-use exemptions. It builds on the process for essential-use exemptions, which evolved through Articles of the Protocol and Decisions of the Parties, the procedures followed under the Protocol, and the experience of TEAP and its Technical Options Committees in managing the essential-use process.

This sixth version of the Handbook was prepared in response to the request of the Parties to incorporate the relevant decisions of the Parties, particularly those taken at the First Extraordinary Meeting of the Parties (EMOP1) and the Sixteenth Meeting of the Parties (MOP16), as well as taking into account the experience gained during reviews of critical-use nominations (CUNs) submitted by the Parties since 2003. This revised Handbook also incorporates the accounting framework adopted by Decision XVI/6 and elements of annual reporting contained in Annex I of the report of EMOP1 (“Requirements for annual reporting of critical-use exemptions for methyl bromide.”)

The Parties' expressed their vision of the Handbook in Decision XVI/4, Annex I of MOP16 report as follows:

27. The handbook is a general reference for all those involved in the critical-use exemption process, in part owing to the convenience of using the handbook as a general reference volume for methyl bromide decisions, as well as the critical-use nomination procedure. Therefore, the handbook should be reframed to become a comprehensive "one-stop shop" that includes information on methyl bromide decisions, working procedures and terms of reference of MBTOC, the critical-use nomination process, agreed standard presumptions and other related topics. The text should be taken as far as possible, however, directly from decisions of the Meeting of the Parties or other language that has been approved by the Parties.

28. The onus remains on the nominating Party to provide sufficient information in order for MBTOC to be able to assess whether critical-use nominations comply fully with decision IX/6. The handbook should inform Parties which information requirements are needed.

Although no significant changes are necessary and no new Decisions have been issued by the Parties at this time, Version 6 of the Handbook provides a general update of the previous Version 5 of 2006 and introduces revised forms and an improved format. A change in standard presumptions, approved by the Parties, used to evaluate soils (preplant) CUNs is also included.

## **1.2 Content and Structure**

The Handbook contains four sections: (1) an outline of the critical-use exemption process, (2) forms and notes for the submission of critical-use nominations, (3) reporting and accounting framework and (4) appendices. The appendices contain provisions of the Montreal Protocol relating to critical-use exemptions for methyl bromide, relevant decisions of the Parties to the Protocol, and extracts from meeting reports of the Parties relevant to critical uses.

## **1.3 Handbook Updates**

In paragraph 29 of the Annex to Decision XVI/4 the Parties decided that:

"29. TEAP and its MBTOC should be responsible for updating the handbook. TEAP and its MBTOC should not put any new proposals in the handbook which do not have a basis in a decision of the Meeting of the Parties. Factual updates of the handbook incorporating the specific language of the decisions of the Parties do not require prior approval from the Parties. Otherwise, updates require approval from the Parties."

This latest version of the handbook was posted on the ozone secretariat web site on December 2007 and can be found at

[http://ozone.unep.org/Assessment\\_Panels/TEAP/Reports/MBTOC/index.shtml](http://ozone.unep.org/Assessment_Panels/TEAP/Reports/MBTOC/index.shtml)



## **Chapter 2 – Critical Uses for Methyl Bromide**

### **2.1 Introduction**

Parties may nominate uses for a critical-use exemption to allow continued use of methyl bromide for non-quarantine and pre-shipment purposes after the phase-out date and where alternatives are not available, or cannot be adopted for other reasons (i.e. regulatory, economic). For Parties not operating under Article 5, the required production and consumption phase-out was by 1 January 2005 (Article 2H, as amended). Parties operating under Article 5 are not required to phase-out the production and consumption of methyl bromide until 1 January 2015. Hence the critical-use nomination process has not started for the Article 5 Parties.

Montreal Protocol provisions relate to the phase-out of production and consumption, except for critical uses. The Parties can continue to use the methyl bromide manufactured prior to the phase-out (i.e. stockpiles). However, consistent with Decision IX/6, consumption and production for critical uses should be permitted only if methyl bromide is not available in sufficient quantity from existing stocks of banked or recycled methyl bromide.

Only Parties to the Montreal Protocol that have ratified the Copenhagen and Beijing Amendments can submit nominations. Thus, companies, other organisations and individuals must submit applications to their national governments for their consideration and possible forwarding to the Ozone Secretariat.

Nominations are submitted by 24 January every year. MBTOC and TEAP review the nominations in accordance with the procedures, criteria and guidance defined by the Parties in their decisions, in particular, Decisions IX/6, Ex.I/4 and XVI/4. The decisions on the nominations are taken at the Meetings of the Parties. The details of the steps involved in the review process and the associated timetable are contained in section 2.3 and in paragraph 1 of the Annex to Decision Ex.I/4 (Annex I of MOP16 report) (see Appendix B).

In an emergency, Parties may notify the Secretariat that they will consume quantities of methyl bromide not exceeding 20 tonnes without prior exemption. The Secretariat and the TEAP will evaluate this use according to “critical methyl bromide use” criteria and present this information for review and guidance at the next Meeting of the Parties, as provided for in Decision IX/7.

### **2.2 Framework**

The nomination and review process for critical-use exemptions for methyl bromide follows that which has evolved for essential-use exemptions for substances in Annexes A-C of the Protocol.

The steps in the critical-use exemption process are summarised below.

The control measures contained in Article 2A-2H of the Montreal Protocol mandates the phase-out of production and "consumption" of substances that deplete the ozone layer. "Consumption" is defined as production plus imports minus exports. The Parties are allowed to use stockpiled or recycled

substances for as long as they are available after the production phase-out, unless restricted by national regulations and as impacted by Decision IX/6. Article 2H authorises the Parties to permit, through decisions of the Parties, production and consumption for those uses decided by the Parties to be critical uses.

Article 6 (see Appendix A for full text) of the Montreal Protocol mandates the creation of expert panels to assist the Parties in assessing the adequacy of the control measures. This provision led to the formation of the Technology and Economic Assessment Panel (TEAP) and its Technical Options Committees (TOCs), including the Methyl Bromide Technical Options Committee (MBTOC) and its subcommittees, MBTOC-S (soils) and MBTOC-QSC (quarantine, structures and commodities). All the names of the current members of the TEAP and its TOCs and Task Forces may be found at: <http://www.unep.org/ozone/teap>.

At the Ninth Meeting, the Parties criteria and procedures were set out for assessing a critical methyl bromide use for the purposes of control measures and exemptions in Article 2H of the Protocol.

The substantive criteria for a critical-use exemption as given in Decision IX/6 are:

“That a use of methyl bromide should qualify as “critical” only if the nominating Party determines that:

- (i) The specific use is critical because the lack of availability of methyl bromide for that use would result in a significant market disruption; and
- (ii) There are no technically and economically feasible alternatives or substitutes available to the user that are acceptable from the standpoint of environment and health and are suitable to the crops and circumstances of the nomination;”

In addition, for Parties not operating under Article 5, “that production and consumption, if any, of methyl bromide for critical uses should be permitted only if:

- (i) All technically and economically feasible steps have been taken to minimise the critical use and any associated emission of methyl bromide;
- (ii) Methyl bromide is not available in sufficient quantity and quality from existing stocks of banked or recycled methyl bromide; also bearing in mind the developing countries’ need for methyl bromide;
- (iii) It is demonstrated that an appropriate effort is being made to evaluate, commercialise and secure national regulatory approval of alternatives and substitutes, taking into consideration the circumstances of the particular nomination.... Non-Article 5 Parties must demonstrate that research programmes are in place to develop and deploy alternatives and substitutes....”

The Parties at their First Extraordinary Meeting and the Sixteenth Meeting made several decisions within Decisions Ex.I/3, 4, 5 as well as XVI/3, 4, 6 that impact directly on how CUNs should be composed, submitted and evaluated . Some of the key elements of those decisions, including the different timings for the start of their operation are provided below:

**Requirements for the nominating Parties:**

Decision Ex.I/3, paragraph 7 states:

7. Bearing in mind that Parties should aim at significantly and progressively reducing their production and consumption of methyl bromide for critical-use exemptions, that a Party may request reconsideration by the Meeting of the Parties of an approved critical-use exemption in the case of exceptional circumstances, such as unforeseen de-registration of an approved methyl bromide alternative when no other feasible alternatives are available, or where pest and pathogens build resistance to the alternative, or where the use-reduction measures on which the Technology and Economic Assessment Panel based its recommendation as to the level necessary to satisfy critical uses are demonstrated not to be feasible in the specific circumstances of that Party

Under Decision Ex.I/4 on conditions for granting and reporting critical-use exemptions for methyl bromide, the Parties the key requirements for the Parties include the following:

1. That each Party which has an agreed critical use under the present decision should submit available information to the Ozone Secretariat before 1 February 2005 on the alternatives available, listed according to their pre-harvest or post-harvest uses and the possible date of registration, if required, for each alternative; and on the alternatives which the Parties can disclose to be under development, listed according to their pre-harvest or post-harvest uses and the likely date of registration, if required and known, for those alternatives. The Ozone Secretariat is requested to provide a template for that information and to post the said information in a database entitled "Methyl Bromide Alternatives" on its web site;
2. That each Party which submits a nomination for the production and consumption of methyl bromide for years after 2005 should also submit information listed in paragraph 1 to the Ozone Secretariat to include in its Methyl Bromide Alternatives database and that any other Party which no longer consumes methyl bromide should also submit information on alternatives to the Secretariat for inclusion in that database;
3. To request each Party which makes a critical-use nomination after 2005 to submit a national management strategy for phase-out of critical uses of methyl bromide to the Ozone Secretariat before 1 February 2006. The management strategy should aim, inter alia, to:
  - (a) Avoid any increase in methyl bromide consumption except for unforeseen circumstances;
  - (b) Encourage the use of alternatives through the use of expedited procedures, where possible, to develop, register and deploy technically and economically feasible alternatives;
  - (c) Provide information, for each current pre-harvest and post-harvest use for which a nomination is planned, on the potential market penetration of newly deployed alternatives, and alternatives which may be used in the near future, to bring forward the time when it is estimated that methyl bromide consumption for such uses can be reduced and/or ultimately eliminated;
  - (d) Promote the implementation of measures which ensure that any emissions of methyl bromide are minimized;
  - (e) Show how the management strategy will be implemented to promote the phase-out of

uses of methyl bromide as soon as technically and economically feasible alternatives are available, in particular describing the steps which the Party is taking in regard to subparagraph (b) (iii) of paragraph 1 of decision IX/6 in respect of research programmes in non-Article 5 Parties and the adoption of alternatives by Article 5 Parties;

4. To request the Meeting of the Parties to take into account information submitted pursuant to paragraphs 1 and 3 of the present decision when it considers permitting a Party to produce or consume methyl bromide for critical uses after 2006;
5. To request a Party that has submitted a request for a critical-use exemption to consider and implement, if feasible, Technology and Economic Assessment Panel and Methyl Bromide Technical Options Committee recommendations on actions which a Party may take to reduce critical uses of methyl bromide;
6. To request any Party submitting a critical-use nomination after 2004 to describe in its nomination the methodology used to determine economic feasibility in the event that economic feasibility is used as a criterion to justify the requirement for the critical use of methyl bromide, using as a guide the economic criteria contained in section 4 of annex I to the present report;
7. To request each Party from 1 January 2005 to provide to the Ozone Secretariat a summary of each crop or post-harvest nomination containing the following information:
  - (a) Name of the nominating Party
  - (b) Descriptive title of the nomination;
  - (c) Crop name (open field or protected) or post-harvest use;
  - (d) Quantity of methyl bromide requested in each year;
  - (e) Reason(s) why alternatives to methyl bromide are not technically and economically feasible;

The economic measures or indicators contained in Section 4 of Annex 1 of the meeting report of the EMOP1 (UNEP/OzL.Pro.ExMP/1/3) in relation to CUNs are:

- (a) The purchase cost per kilogram of methyl bromide and of the alternative;
- (b) Gross and net revenue with and without methyl bromide, and with the next best alternative;
- (c) Percentage change in gross revenues if alternatives are used;
- (d) Absolute losses per hectare/cubic metre if alternatives are used;
- (e) Losses per kilogram of methyl bromide requested if alternatives are used;
- (f) Losses as a percentage of net cash revenue if alternatives are used;
- (g) Percentage change in profit margin if alternatives are used.

**Requirements for MBTOC and TEAP:**

The key actions to be taken by MBTOC and TEAP in relation to evaluating the CUNs as contained in paragraph 9 of Decision Ex.I/4 are as follows:

- (c) To assess “economic infeasibility”, based on the methodology submitted by the nominating Party under paragraph 6 above, in making its recommendations on each critical-

use nomination. The report by the Technology and Economic Assessment Panel should be made with a view to encouraging nominating Parties to adopt a common approach in assessing the economic feasibility of alternatives;

(e) Review critical-use nominations on an annual basis and apply the criteria set forth in decision IX/6 and of other relevant criteria agreed by the Parties;

(h) To assess, annually where appropriate, any critical-use nomination made after the end of 2006 in the light of the Methyl Bromide Alternatives Database information submitted pursuant to paragraph 1 of the present decision, and to compare, annually where appropriate, the quantity, in the nomination, of methyl bromide requested and recommended for each pre-harvest and post-harvest use with the management strategy submitted by the Party pursuant to paragraph 3 of the present decision;

(i) To report annually on the status of re-registration and review of methyl bromide uses for the applications reflected in the critical-use exemptions, including any information on health effects and environmental acceptability;

(j) Report annually on the status of registration of alternatives and substitutes for methyl bromide, with particular emphasis on possible regulatory actions that will increase or decrease dependence on methyl bromide;

Annex to Decision XVI/4 (Annex I of MOP16 report) further requests MBTOC of the following:

2. Standard presumptions that underlie MBTOC recommendations of critical-use nominations need to be transparent and technically and economically justified, and should be clearly stated in its reports, and submitted to the Parties for approval at the Seventeenth Meeting of the Parties, and thereafter on an annual basis. Reaffirming that the individual circumstances are the primary point of departure for an assessment of a nomination, MBTOC should not apply standard presumptions where the Party has demonstrated that the individual circumstances of the nomination indicate otherwise.

3. In the event that a nomination has been recommended for rejection or reduction as assessed under action 6 above, MBTOC will give the nominating Party the opportunity to send detailed corroborating information taking into account the circumstances of the nomination. On the basis of this additional information (and possible consultations with the nominating Party by pre-arranged teleconference) MBTOC will reassess this nomination.

4. Although the burden of proof remains with the Party to justify a request for a critical-use exemption, MBTOC will provide in its report a clear explanation of its operation with respect to the process of making determinations for its recommendations, and clearly state the approach, assumptions and reasoning used in the evaluation of the critical-use nominations. When cuts or denials are proposed, the description should include citations and also indicate where alternatives are technically and economically feasible in circumstances similar to those in the nomination, as described in decision Ex.1/5, paragraph 8.

5. Communications between the nominating Party and MBTOC will be based on the principles of fairness and due process, on the basis of corroborating written documentation, and will be properly reflected in the MBTOC and TEAP reports.

7. MBTOC is requested to develop and keep up to date an expanded matrix describing the conditions under which alternatives are technically and economically feasible. The matrix should include detailed references, such as citations of trial reports demonstrating this feasibility or case studies of commercial operation. Before application, the Parties should approve the matrix and any subsequent changes.

10. Despite the opportunities given to the nominating Party to supply any additional information required in support of its nomination, MBTOC should categorize the nomination as “unable to assess” if there is insufficient information to make an assessment, and clearly explain what information was missing.

Parties, in the Annex to Decision XVI/4 also provided MBTOC with further guidance on the criteria for the evaluation of CUNs, specifically on availability of technically and economically feasible alternatives, and economic feasibility.

17. Pending further consideration by the Meeting of the Parties, MBTOC shall continue to define:

- (a) “Alternatives” as any practice or treatment that can be used in place of methyl bromide;
- (b) “Existing alternatives” as those alternatives in present or past use in some regions; and
- (c) “Potential alternatives” as those alternatives in the process of investigation or development.

18. Understanding of the concept of “availability” shall be primarily guided by the alternative’s market presence in sufficient quantities and accessibility, taking into account, among other things, regulatory constraints.

19. To the factors already listed in annex I, part B, paragraph 4 of the report of the Extraordinary Meeting of the Parties, with regard to paragraphs 6 and 9 (c) of decision Ex.I/4, the following are added:

- (a) The difference in purchasing costs between methyl bromide and the alternatives per treated areas, mass, or volume, and related costs such as new equipment, labour costs and losses resulting from closing the fumigated object for an extended period of time;
- (b) Difference in yield per hectare, including its quality, and harvest time, between the alternative and methyl bromide;
- (c) Percentage change in net revenue if alternatives are used.

20. In line with paragraph 4 above, in any case in which a Party makes a nomination which relies on the economic criteria of decision IX/6, MBTOC should, in its report, explicitly state the central basis for the Party’s economic argument and explicitly explain how it addressed that factor, and, in cases in which MBTOC recommends a cut, MBTOC should also provide an explanation of its economic feasibility.

21. As regards significant market disruption, it is recalled that paragraph 1 (a) (i) of decision IX/6 provides that a use of methyl bromide should qualify as “critical” only if the

nominating Party determines that the specific use is critical because the lack of availability of methyl bromide for that use would result in a significant market disruption. Parties are invited to include in their nominations, information on their determination referred to in paragraph 1 (a) (i) of decision IX/6.

On individual circumstances of nominations

24. In the interest of fair and equal treatment, nominations should be assessed in the light of compliance with the criteria of decision IX/6 and other relevant decisions, irrespective of the size or number of tonnes in the nomination. MBTOC is invited to propose a streamlined method for assessing small nominations to the degree that the method is consistent with the principle stated above.

25. If a particular product is not registered or subject to national or local regulatory restrictions, or if it becomes de-registered, MBTOC should recommend a critical-use exemption, provided there are no other feasible alternatives according to decision IX/6 for the specific situation. MBTOC should request written advice from the nominating Party, which may include advice from the manufacturer of an alternative.

26. In cases where alternatives are currently in the registration process, MBTOC should note this fact. It is acknowledged that a Party does not always have the capability to influence the registration of alternatives. A nominating Party should inform MBTOC when registration occurs and MBTOC should take this kind of information into account when recommending critical-use exemptions, as is already requested by the Parties in decision IX/6, paragraph 1 (b) (iii).

On approach, assumptions and reasoning to be used in the evaluation

30. Decision IX/6 is the basis for the assessment of critical-use exemptions by MBTOC.

31. While the burden of proof remains with the nominating Party to justify the request for a critical-use exemption, MBTOC, in its report, should indicate whether the nominating Party has provided the information in order for MBTOC to determine that the Party has met the applicable criteria set out in decision IX/6 and related decisions.

32. Exemptions must fully comply with decision IX/6 and other relevant decisions, and are intended to be limited to the levels needed for critical-use exemptions, temporary derogations from the phase-out of methyl bromide in that they are to apply only until there are technically and economically feasible alternatives that otherwise meet the criteria in decision IX/6. MBTOC should take a precise and transparent approach to the application of the criteria, especially, to paragraphs 4 and 20 above.

On similar circumstances

33. When MBTOC makes differentiated recommendations on nominations that cover the same use, it should clearly explain why one country's nomination is being treated differently than the nominations of other countries or the nominations of the same country, based on more information and citations of feasible alternatives relevant to these nominations, thus eliminating unjustified inconsistencies in assessments and ensuring equal treatment of nominations.

On market penetration of alternatives

34. When considering the market penetration of an alternative in a nominating Party, MBTOC should evaluate the critical-use nominations based on information provided by the Parties and other information, in accordance with the terms of reference of TEAP, and in the light of likely implementation time in the circumstances of the nomination, and provide recommendations. In evaluating, MBTOC should request written advice from the nominating Party, which may include further information from the manufacturer of an alternative.

35. In situations where MBTOC recommends a nomination on grounds that it is necessary to have a period for adoption of alternatives, the basis for calculating the time period must be explained fully in the TEAP report and take fully into account the information provided by the nominating Party, the supplier, the distributor or the manufacturer. Relevant factors for such a calculation include the number of enterprises that need to transition, e.g., the number of fumigation and pest control companies, estimated training time assuming full effort, opportunities for importing alternative equipment and expertise if not available locally, and costs involved.

36. A case-by-case approach by MBTOC for each specific nomination (on the basis of information provided according to paragraph 35 above) is necessary above a one-size-fits-all approach when considering penetration of alternatives and transition times.

### **2.3 Process for nomination for critical use exemption**

The process and timetable for the submission of the nominations and their evaluations have been defined by the Parties through Decision XVI/4, Annex I of the report of MOP16, and para.3 as follows:



<b>Actions</b>	<b>Indicative completion date</b>
Parties submit their nominations for critical-use exemptions to the Secretariat	24 January
Parties submit a national management strategy for phase-out of critical uses of methyl bromide to the Ozone Secretariat	1 February
The nominations are forwarded to MBTOC co-chairs for distribution to the subgroups of appointed members	7 February
Nominations in full are assessed by the subgroups of appointed members. The initial findings of the subgroups, and any requests for additional information are forwarded to the MBTOC co-chairs for clearance	
MBTOC co-chairs forward the cleared advice on initial findings and requests for additional information on to the nominating Party concerned and consult with the Party on the possible presumption therein	28 February
Nominating Party develops and submits its response to the MBTOC co-chairs	25 March
MBTOC meets as usual to assess nominations, including any additional information provided by the nominating Party prior to the MBTOC meeting under action 5 and any additional information provided by nominating Party through pre-arranged teleconference, or through meetings with national experts, in accordance with paragraph 3.4 of the terms of reference of TEAP, advises the nominating Party of any outstanding information regarding the information requested under action 3 for those critical-use nominations where it was unable to assess the nomination, and provides its proposed recommendations to TEAP	Mid April
TEAP meets as usual, among other things, to assess the MBTOC report on critical-use nominations and submits the finalized report on recommendations and findings to the Secretariat	Late April
The Secretariat posts the finalized report on its web site and circulates it to the Parties	Mid May
MBTOC co-chairs forward the complete list of additional questions to the Parties in preparation for the OEWG	
Nominating Party has the opportunity to consult with MBTOC on a bilateral basis in conjunction with the Open-ended Working Group meetings	Early July
The nominating Party submits further clarification for the critical-use nomination in the “unable to assess” category or if requested to do so by the Open-ended Working Group, and provides additional information should it wish to appeal against a critical-use nomination recommendation by MBTOC	Mid August
MBTOC meets to reassess only those critical-use nominations in the “unable to assess” category, those where additional information has been submitted by the nominating Party and any critical-use nominations for which additional information has been requested by the Open-ended Working Group	Early September
MBTOC final report is made available to Parties through TEAP	Early October
Meeting of the Parties	Mid November

Decision IX/6(2) tasked TEAP to review nominations for critical-use exemptions submitted by the Parties, and to make recommendations based on the criticality criteria and guidance (see section 2.2 above).

Note that Decision IX/6 in paragraph 2 specifically assigns the nominating Party responsibility for determining significant market disruption specified in paragraph 1 (a)(i).

A critical-use exemption is granted to the nominating Party for a specific quantity of methyl bromide for a specific time period and use where, under the circumstances of the nomination, there are no economically and technically feasible alternatives, or where regulatory issues prevent their adoption. Although currently the Parties request for exemptions on an annual basis, the Parties agreed in Decision XVI/3 that the basis for extending the duration of critical-use nominations and exemptions to periods greater than one year requires further attention. At this time there has been no further decision on multi-year exemptions, and all CUEs approved to date have been for a single year only.

A Party granted a critical-use exemption may produce and/or import the specified methyl bromide quantity to meet the needs of those users within its territory that are licensed or otherwise determined by competent authorities to be eligible to use methyl bromide. Any methyl bromide production and consumption to meet the authorised critical uses, and also quantities authorised but not actually consumed (stockpiled), should be identified in the annual data reporting and accounting framework (see Chapter 4) to the Ozone Secretariat.

The Parties that have been granted critical-use exemptions are required to supply the following information:

- Available information to the Ozone Secretariat before 1 February 2005, and for years thereafter, on the alternatives available, listed according to their pre-harvest or post-harvest uses and the possible date of registration, if required, for each alternative; and on the alternatives which the Parties can disclose to be under development, listed according to their pre-harvest or post-harvest uses and the likely date of registration, if required and known, for those alternatives.
- A national management strategy for phase-out of critical uses of methyl bromide to the Ozone Secretariat before 1 February 2006. The required information in the strategy is listed in Decision Ex.I/4(3).

The Meeting of the Parties will take into account the above information submitted when it considers permitting a Party to produce or consume methyl bromide for critical uses after 2006.

In addition, the Parties are requested to:

- describe in the nomination submitted after 2004, the methodology used to determine economic feasibility in the event that economic feasibility is used as a criterion to justify the requirement for the critical use of methyl bromide, using as a guide the economic criteria contained in section 4 of annex I to the report of EMOP1;
- from 1 January 2005 to provide to the Ozone Secretariat a summary of each crop or post-harvest nomination.

In rare instances, confidential information may be a key element of a nomination. Such confidential information should be clearly indicated in a nomination and will be treated in the same way as data referred to in Decision I/11. Although TEAP and its MBTOC make the necessary arrangements to protect the confidentiality of information that submitting Parties deem confidential, Parties are urged

to consolidate similar nominations to minimise the need to include confidential information that can be easily traced to one producer or organisation.

## 2.4. Steps Leading to a Critical Use Exemption

The critical-use process consists of the following nine main steps:

1. **Application:** An organisation or other entity in a non-Article 5 Party to the Protocol makes a specific application for a critical-use exemption to the relevant government authority. The government reviews the application and submits the nomination only if technically and economically feasible alternatives (substitutes) are not available and significant market disruption would result from the lack of methyl bromide.
2. **Nomination:** Government authorities submit Critical Use Nomination(s) to the Montreal Protocol Ozone Secretariat for any future year or years. Nominations for any future year received by 24 January will be considered at the Meeting of the Parties in that year. The Party should name person(s) in its country who are authorised to provide any clarifications sought on the nominations by the TEAP and its MBTOC. Early submission of nominations is encouraged.
3. **Assignment:** The Ozone Secretariat forwards notice of the nomination to TEAP and its MBTOC. Copies of the complete nomination are forwarded to TEAP and its MBTOC.
4. **Review:** MBTOC reviews the nomination for whether it satisfies the criteria for a critical use established by Decision IX/6 and subsequent guidance from the Parties. During the course of evaluation, clarifications, if needed, are requested from person(s) designated by the nominating Party in the nomination. TEAP then reviews the report of MBTOC and may make additional input or changes to the draft. A nomination is either categorised as 'recommended', 'not recommended' or 'unable to assess'. In the latter case, the Party may be requested via the Ozone Secretariat to submit further information. A nominated quantity of methyl bromide may be 'recommended' partially or fully. Nominations submitted to the Secretariat by 24 January will be evaluated in the TEAP report to the OEWG, which is prepared by early May of each year. A detailed timetable for the MBTOC/TEAP review is given in section 2.3 above.
5. **Evaluation:** The OEWG meeting reviews the Panel report and recommends a decision for consideration by the Parties.
6. **Further review:** MBTOC may review CUNs that referred back to it by the OEWG at the August/September MBTOC meetings, following the procedure set out in para. 4 above.
7. **Decision:** The Meeting of the Parties decides whether to authorise production and consumption for critical use in accordance with the Montreal Protocol. The Parties may attach conditions to their approval for the critical use.

- 8. National Authorisation:** The Party in possession of a critical-use exemption authorises the applicant to acquire the controlled substance (methyl bromide) according to the terms of the decision.
- 9. Procurement and use:** The Applicant acquires a quantity less-than or equal-to the amount of methyl bromide authorised by the national authority. Please note that the Protocol and national authorities authorise, but do not mandate, production and/or import: each applicant must locate a supplier and negotiate supply.
- 10. Reporting:** Users provide the national authority with all information necessary for subsequent auditing and reporting of the authorised use to the Ozone Secretariat, including quantities applied and unused or stored for subsequent authorised use.

## **2.5 Information Requirements**

Information requirements for methyl bromide Critical Use Nominations (CUNs) are different for soil fumigation and postharvest and structural fumigation. Suggested submission forms for CUNs are given in Sections 3.1.1 (Soils) and 3.1.2 (Structures, Commodities and Objects). These forms include detailed instructions and notes on what information is requested by TEAP and MBTOC in order to fulfil its mandate to evaluate CUNs in the light of Decision IX/6. Discussion on information requirements for critical-use nominations for soil fumigation (pre-plant) purposes can also be found in the report of the Thirteenth Meeting of the Parties, Colombo, November 2001 (see Appendix B).

Management Strategy: For nominations submitted in 2006 and thereafter, a national management strategy for phase-out of critical uses of methyl bromide should be included, giving information according to the headings given in Dec. Ex I/4(3).

Accounting framework: After the end of 2005, each Party which had been granted a critical-use exemption is requested to submit information on the quantities of methyl bromide produced, imported and exported by Parties under the terms of critical-use exemptions using the accounting framework form provided in Chapter 4.

## **2.6 Process of evaluation, including process within MBTOC and standard presumptions**

In late 2006, TEAP Co-Chairs announced a reorganization of MBTOC, separating it formally into two independent sub-committees, recognizing the differing expertise required for the two main groupings of CUNs, those relating to postharvest and structural uses and those involved with soil fumigation. MBTOC Quarantine, Structures and Commodities (MBTOC QSC) has responsibility for issues concerning methyl bromide uses and alternatives for quarantine, pre-shipment, structural and commodities. Additionally, MBTOC QSC has absorbed the membership of the former Quarantine Task Force. MBTOC Soils has responsibility for the pre-plant uses and alternatives of methyl bromide. Evaluations of CUNs for the two categories are reported separately.

### 2.6.1 Process

The procedure for evaluating critical-use nominations is based on Decisions IX/6, XIII/11 and appropriate parts of Decisions Ex. I/3, 4, 5, and XVI/4 Annex (Annex I of MOP16 Report).

Review by TEAP is conducted initially through its MBTOC. Members of MBTOC evaluate each nomination and report their review to the MBTOC co-chairs. Typically, the two MBTOC subcommittees, MBTOC – Soils and MBTOC – QSC, meet separately to elaborate draft evaluations of the CUNs appropriate to their areas of expertise. The draft text of the responses to nominations is discussed via meetings, email, telephone, fax and mail, as appropriate. The results of these reviews are discussed at full meeting(s) of MBTOC to reach consensus on the draft evaluations. Clarifications may be sought via the Ozone Secretariat from the nominating Party as necessary during the review process. A draft recommendation is prepared and agreed by MBTOC. This is forwarded to TEAP by the MBTOC co-chairs for further review.

TEAP reviews recommendations on the nominations and submits its report through the Secretariat by early May which is at least two months prior to the Meeting of the Open-Ended Working Group (OEWG). The OEWG may also choose to comment on the nominations and to make recommendations to the meeting of the Parties. Bilateral discussions under Dec. XVI/2 para. 7b between the nominating Parties and MBTOC members or appropriate subgroups thereof may also take place prior to and during the OEWG as needed.

The Parties normally finalise decisions on the nominations at their annual meeting during the last quarter of the year or at Extraordinary Meetings of the Parties. The schedule for submissions, including opportunities for consultation between MBTOC/TEAP and the nominating Parties, is set out in Section 2.3.

The procedure can be summarized as follows:

- The Parties submit their nominations in accordance with the procedure set forth in the relevant decisions and the Handbook.
- The nominations are submitted to the Ozone Secretariat and the Secretariat forwards them to the MBTOC and TEAP Co-Chairs.
- MBTOC evaluates the nominations following the criteria established by the Parties, principally in Decision IX/6 and as subsequently elaborated.
- The nominations that lack adequate information are identified. Clarifications or additional information are sought on such nominations from the relevant Parties through the Ozone Secretariat.
- MBTOC or a subgroup thereof may meet bilaterally before MBTOC finalises its draft conclusions with a nominating Party at the Party's request.
- MBTOC prepares its interim report that is then reviewed by TEAP at its annual meeting. The recommendations of the TEAP are submitted to the Open-ended Working Group. The nominations that lack sufficient information stand as "unable to assess" at this stage.
- The Open-ended working Group meeting reviews the Panel report and recommends a decision for consideration by the Parties.
- MBTOC meets again to complete evaluation of the nominations. MBTOC prepares a draft final report, on the basis the review by the Open-ended Working Group and of responses to clarifications or additional information sought from the relevant Parties through the Ozone Secretariat, for review by TEAP and publication prior to the Meeting of the Parties.

- The Parties take decisions on the exemptions to be granted at the Meeting of the Parties.

### 2.6.2 *Workplan*

In accordance with paragraphs 15 and 16 of Annex to Decision XVI/4, MBTOC will draw up an annual work plan in consultation with TEAP (and support of the Ozone Secretariat) with a view to enhancing the transparency of, and insight in, the operations of MBTOC. The work plan will be submitted to the Meeting of the Parties each year.

The annual work plan should indicate, among other things:

- (a) Key events for a given year;
- (b) Envisaged meeting dates of MBTOC, including the stage in the nomination and evaluation process to which the respective meetings relate;
- (c) Tasks to be accomplished at each meeting, including appropriate delegation of such tasks;
- (d) Timing of interim and final reports;
- (e) Clear references to the timelines relating to nominations;
- (f) Information related to financial needs, while noting that financial considerations would still be reviewed solely in the context of the review of the Secretariat's budget;
- (g) Changes in the composition of MBTOC, pursuant to the criteria for selection;
- (h) Summary report of MBTOC activities over the previous year, including matters that MBTOC did not manage to complete, the reasons for this and plans to address these unfinished matters;
- (i) Matrix with existing and needed skills and expertise; and
- (j) Any new or revised standards or presumptions that MBTOC seeks to apply in its future assessment of critical-use nominations, for approval by the Meeting of the Parties.

### 2.6.3 *Code of Conduct*

TEAP and MBTOC operate under the Terms of Reference of the TEAP was adopted by the Parties at their Eighth Meeting in Decision VIII/9 and published as Annex V of the report of MOP8 (UNEP/OzL.Pro.8/12). The Terms of reference contains the Code of Conduct, which the members of MBTOC adhere to. Establishing clear rules of conduct with respect to conflicts of interest during and after service as a member of the TEAP or its TOCs is a requirement under the code of conduct. MBTOC members complete a disclosure of interest declaration specified in the TEAP terms of reference. The forms completed by the members are held by the MBTOC co-chairs and the forms completed by the MBTOC co-chairs are held by the TEAP co-chairs. A further disclosure of interest form is completed in relation to consideration of nominations for critical uses. The forms completed by the members are held by the MBTOC co-chairs.

The extent of disclosed conflict of interest determines whether and in what ways a member of MBTOC may participate in evaluating critical-use nominations. A member of MBTOC with no conflict of interest may fully participate in all aspects of an evaluation, while a member directly involved in the development of a nomination or with a financial or professional interest in the outcome of an evaluation must be secluded from all discussions relating thereto.

The Parties have considered the issue of conflict of interest, including the forms being used by the MBTOC members for disclosure of interest. The Parties decided in Decision XVI/4, Annex, that:

37. The members of MBTOC should be required to declare any interest that they may have on the basis of a declaration, to be agreed by the Parties, and subject to any conditions attached to it.

38. Procedures to avoid conflict of interest, including the format of the declaration referred to in paragraph 37 above, needs further deliberations, taking fully into account the experience gained in this regard, the issue of confidentiality and the existing code of conduct contained in paragraph 5 of the terms of reference of TEAP.

#### 2.6.4 *Membership*

The Parties, in Decision XVI/4, Annex, urged TEAP and MBTOC to apply strictly the current terms of reference of TEAP approved by the Eighth Meeting of the Parties in its decision VIII/9, in particular:

- (a) To draw up guidelines for nominating experts by the Parties to be published by the Secretariat;
- (b) To publish and keep current a matrix showing existing and needed skills for the MBTOC members. In so doing, MBTOC may like to use all available UNEP publications, the Secretariat web page, the regional ozone officers' network meetings and any other means considered appropriate. Parties, and in particular Parties operating under Article 5, are urged to consider nominating experts to MBTOC in those areas where missing skills and expertise have been identified by MBTOC;
- (c) To ensure that MBTOC has about 20–35 members as set out in the terms of reference of TEAP, while also ensuring coverage of the required expertise;
- (d) In order to meet the overall goal of achieving a representation in the Committee of about 50 per cent for Parties operating under Article 5, where candidates from Parties operating under Article 5 and those not so operating have equivalent expertise and experience, the MBTOC co-chairs shall give preference to the appointment of those experts from Parties operating under Article 5. The MBTOC co-chairs, supported by the Ozone Secretariat, should aim to achieve a balanced membership within two years, or as soon as possible thereafter. The Parties shall monitor progress in pursuing a balanced membership by reviewing the advice provided in the work plan on the composition of MBTOC;
- (e) Skills and expertise in the following fields, among others deemed necessary by MBTOC, should be represented:
  - (i) Chemical and non-chemical alternatives to methyl bromide;
  - (ii) Technology transfer or extension activities related to alternatives;
  - (iii) Regulatory processes of registration;
  - (iv) Agricultural economics;

- (v) Resistance management;
- (vi) Recapture and recycling of methyl bromide.

12. MBTOC should ensure a membership with substantive practical and first-hand experience. With respect to (i), (ii), (iii) and (vi) above, preference should be given to candidates who have experience in the implementation of more than one alternative.

13. With a view to supporting a timely review process and ensuring additional expertise that may be required for a particular critical-use nomination, MBTOC may seek assistance from additional experts who, at the request of MBTOC, should provide written input and assist in the review of MBTOC documents. These consulting experts can be invited by the MBTOC co-chairs, on an exceptional basis, to be heard personally at a meeting of MBTOC. For reasons of transparency and accountability, the role and type of input of these consulting experts should be clearly set out.

The Parties, in the same Decision, also provided further guidance for the candidates to serve on the MBTOC:

14. Candidates should be willing to undertake an evaluation of a proportion of the nominations before arriving at the meeting in order to take advantage of all the local resources available (library, internet, reports); and to undertake any work after the meeting necessary to finalize the report.

#### *2.6.5 Standard presumptions*

The tables below (Tables 1,2) are explicit statements of standard presumptions applied by MBTOC/TEAP in assessing the 2007 and previously 2006 and 2005 rounds of CUNs. Statements of these presumptions have been given in TEAP reports of October 2005, May 2006, October 2006, April 2007 and August 2007 dealing with CUNs.

The dosage levels of methyl bromide given in these presumptions exceed that required in good agricultural practice in all but exceptional circumstances, particularly when used in soil treatment in conjunction with low gas permeability barrier films (LPBF), such as various VIF and metallised barrier films. A revision to these presumptions was presented to the 19<sup>th</sup> MOP. It more accurately reflected effective maximum feasible dosages with methyl bromide/chloropicrin combinations.

In all cases, these standard presumptions do not apply where the Party making the CUN demonstrates that they are technically or economically infeasible or where regulatory issues prevent their adoption.



**Table 1. Standard presumptions used in assessment of CUNs – soil treatments.**

	Comment	CUN adjustment	Exceptions
<b>1. Dosage rates</b>	Maximum guideline rates for MB:Pic 98:2 – 25 g/m <sup>2</sup> to 35 g/m <sup>2</sup> with barrier films (VIF or equivalent); for MB/Pic 67:33 - 15g or 17.5g MB/m <sup>2</sup> , for pathogens and nutsedge respectively under barrier films.. All rates on a 'per treated hectare' basis.	Amount adjusted to maximum guideline rates. Maximum rates set dependent on formulation and soil type and film availability.	Higher rates accepted if specified under national legislation or where the Party had justified otherwise.
<b>2. Barrier films</b>	All treatments to be carried out under low permeability barrier film (e.g. VIF)	Nomination reduced proportionately to conform to barrier film use.	Where barrier film prohibited or restricted by legislative or regulatory reasons
<b>3. MB/Pic Formulation: Pathogen control</b>	Unless otherwise specified, MB/Pic 50:50 (or similar) was considered to be the standard effective formulation for pathogen control, as a transitional strategy to replace MB/Pic 98:2.	Nominated amount adjusted for use with MB/Pic 50:50 (or similar).	Where MB/Pic 50:50 is not registered, or chloropicrin (Pic) is not registered
<b>4. MB/Pic Formulation: Weeds/nutsedge control</b>	Unless otherwise specified, MB/Pic 67:33 (or similar) was used as the standard effective formulation for control of resistant (tolerant) weeds, as a transitional strategy to replace MB/Pic 98:2.	Nominated amount adjusted for use with MB/Pic 67:33 (or similar).	Where chloropicrin or chloropicrin-containing mixtures are not registered
<b>5. Strip vs. Broadacre</b>	Fumigation with MB and mixtures to be carried out under strip	Where rates were shown in broadacre hectares, the CUN was adjusted to the MB rate relative to strip treatment (i.e. treated area). If not specified, the area under strip treatment was considered to represent 67% of the total area.	Where strip treatment was not feasible e.g. some protected cultivation or open field production of high health propagative material

MBTOC considered the maximum MB application rate for 98% MB to be either 250 in sandy soils or 350 kg/ha in heavier soils (i.e. 25 to 35 g/m<sup>2</sup>), in conjunction with low barrier permeability films (e.g., VIF or equivalent), combined with extended exposure periods. In cases where use of high chloropicrin-containing mixtures (approximately MB: Pic 67:33 or 50:50 or lower) is considered feasible, maximum dosage rates of 175 kg MB/ha (17.5 g/m<sup>2</sup>) where nutsedge is the key pest and 150 kg/ha (15 g/m<sup>2</sup>) for pathogens were used as the maximum standard presumptions unless there was a regulatory or technical reason indicated otherwise by the Party.

As a special case, MBTOC accepted a maximum rate of 200 kg/ha of MB (i.e. 20g /m<sup>2</sup>) for mixtures of MB/Pic for certified strawberry runner production in the absence of data that

showed lower rates could meet certification standards in the circumstances of particular nominations.

However, several Parties indicated that rates of 20g/m<sup>2</sup> of MB or less (Table 1) of MB:Pic 50:50 were effective with barrier films for production of ‘certified’ strawberry runners and may be suitable for other propagative material.

Several Parties also indicated that 25g/m<sup>2</sup> of 98:2 were effectively used in standard commercial application, and several Parties had regulations, which required higher rates of up to 50g/m<sup>2</sup>. In these situations, MBTOC has suggested to Parties that lower rates may be technically effective.

The indicative rates used by MBTOC were maximum guideline rates, for the purpose of calculation only. MBTOC recognises that the actual rate appropriate for a specific use may vary with local circumstances, soil conditions and the target pest situation. Some nominations were based on rates lower than these indicative rates.

Changes presented at the 19<sup>th</sup> MOP will be applied commencing with the CUN round of 2008. Maximum dosage rates were revised to 12.5 kg/ha for pathogens and 15.0 kg/ha for specific preplant soil uses where trials and commercial adoption has proven that lower rates are effective as shown in Table 2 below.

Supporting data for the methyl bromide component and dosage is given in the TEAP Report of August 2007.

**Table 2. Proposed changes to maximum dosage rates for preplant soil use of MB.**

<b>Film Type</b>	<b>Maximum MB Dosage Rate (g/m<sup>2</sup>) in MB/Pic mixtures considered effective for:</b>			
	<b>Strawberries and Vegetables</b>	<b>Nurseries*</b>	<b>Orchard Replant</b>	<b>Ornamentals</b>
<b>Barrier films - Pathogens</b>	12.5	15	15	15
<b>Barrier films - Nutsedge</b>	15.0	17.5	17.5	17.5
<b>No Barrier films – Pathogens</b>	20	20	20	20
<b>No Barrier films - Nut sedge</b>	26	26	26	26

\* Maximum rate unless certification specifies otherwise

**Table 3. Standard presumptions used in assessment of CUNs – post-harvest treatments**

	<b>Comment</b>	<b>CUN Adjustment</b>	<b>Exception</b>
<b>Dosage rate - structural</b>	20 g/m <sup>3</sup>	Nominations using higher dosage rates were reduced proportionally	Where approved label rates require higher dosage rate or where substantiated by the Party
<b>Dosage rate – commodities</b>	EPPO standard for bulk commodities as given in MBTOC (1994, 1998)	Nominations using higher dosage rates were reduced proportionally	Where approved label rates require higher dosage rates or where substantiated by the Party

These presumptions have not changed since they were presented to the Parties at the 17 MOP.

## **Chapter 3 – Instructions for submitting Critical Use Nominations**

Instructions are given below for submission of new CUNs (Section 3.2) and for nominations for additional year(s) where a CUE has already been approved following a nomination for a particular year (Section 3.3).

### **3.1 Instructions**

Nominations must fully satisfy the criteria in Decision IX/6. All Parties are encouraged to exercise the utmost diligence in their assessment of a use as a critical use in the light of this Decision and to provide detailed rationale for all nominations.

Nominations to the Ozone Secretariat received by 24 January will be reviewed by TEAP for consideration by the Parties in that same year, i.e. nominations for use in 2009 must be received by 24 January 2008. A detailed time line for nominations is given in Section 2.3.

### **3.2 Critical Use Nominations**

Information required for Critical Use Nominations should include material in the following areas:

- clear statement on the specific circumstances of the nomination which describe the critical need for methyl bromide;
- data on the availability and technical and economic feasibility of alternatives to the proposed methyl bromide use;
- a review of the comparative performance of methyl bromide and alternatives including control of target pests in research and commercial scale up studies;
- technically and economically feasible steps to minimise MB use;
- technically and economically feasible steps to minimise MB emissions;
- recycling and stockpiling;
- efforts made to test, register and commercially adopt alternatives;
- quantity of methyl bromide requested;
- plans for phase-out of critical uses of methyl bromide;
- economic feasibility of alternatives;
- methodology used to provide economic comparisons.

It is the responsibility of the nominating Party to verify that lack of availability of methyl bromide for the nominated use would lead to significant market disruption in the sense of Decision IX/6.

When considering availability of alternatives to a methyl bromide use for which an exemption is being considered, Parties may be guided by those listed in the 'Index to Methyl Bromide Alternatives' and MBTOC Assessment Reports (1998, 2002, 2006). The index is available at <http://www.unep.org/ozone/teap/Reports/MBTOC/index.asp>. It is an index to alternatives cited in the MBTOC Assessments and TEAP Annual Progress Reports up to June 2005. From 1 January 2006, further information is to be provided by the Parties under decision Ex. I/4(1). The MBTOC Assessment reports are available from <http://ozone.unep.org/teap/Reports/MBTOC/index.asp>.

### **3.3 Re-nomination of Critical Uses for further exemption**

Holders of single-year exemptions, e.g. a Party holding single-year exemptions for 2008 and/or 2009 seeking further exemptions for 2010, may reapply for a subsequent year's exemption with simplified nomination requirements.

In assessing re-nominations for a subsequent year, Parties must clearly provide supporting evidence on progress made to find alternatives to methyl bromide. TEAP and MBTOC will also refer to the original nomination on which the Party's first year or years of exemption were approved, as well as any supplementary information provided by the nominee in relation to that original nomination. As this earlier information is retained by MBTOC, nominees need not resubmit that earlier information and can insert the words 'previously supplied in the [insert year] nomination' in the nomination form.

Re-nominations are required to meet all the criteria for Critical Use Exemptions, particularly as set out in Decision IX/6 and subsequently elaborated in Ex. I/3, 4,5. They are considered on the same schedule as new CUNs.

### **3.4 Schedule for Submissions**

The schedule for submission and consideration of CUNs is as follows:

#### **Prior to January 24 in the year that critical-use authorisation is requested:**

Applicant organisations prepare and submit critical-use applications to national governments.

Governments review applications and prepare critical-use nominations, following guidance contained in this "Handbook on Critical Use Nominations for Methyl Bromide".

#### **January 24:<sup>1</sup>**

Deadline for critical-use nominations to the Ozone Secretariat.

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<sup>1</sup> This deadline is established by the Parties.

Please note that the annual Meeting of the Parties is typically in October or later. Therefore nominating Parties and their potential methyl bromide users may wish to submit their nomination two or more years before the critical use is needed in order to allow adequate time for national governments to complete notification of applicants, and for applicants to either procure necessary methyl bromide, if authorised, or to make appropriate arrangements to proceed without methyl bromide, if the nomination was not successful.

Supplementary nominations may be made for those CUEs approved for more than one year in advance of the relevant Meeting of the Parties. Parties may also wish to reduce such nominations in light of changed circumstances.

### **3.5 Recommended Forms and Procedure for Nominations and Re-nominations for Critical Use**

***PLEASE NOTE: The TEAP and its MBTOC may be unable to assess critical-use nominations that fail to comply with instructions from Parties.***

#### *3.5.1 Instructions*

1. To assure timely review, please submit nominations and supporting documentation in English. Abstracts of original supporting documents in English should be given where original documents are in another language and translations are not available.
2. Forms for submission of new nominations and of re-nominations are given below. They are also available as individual documents on the Ozone Secretariat website at [http://ozone.unep.org/Assessment\\_Panels/TEAP/Reports/MBTOC/index.shtml](http://ozone.unep.org/Assessment_Panels/TEAP/Reports/MBTOC/index.shtml). Different forms are required for CUNs for preplant (soil) use or for structures, commodities and objects.
3. In addition to the forms, detailed information to support the nomination should be provided addressing all the requirements in Decision IX/6. This can be submitted as appendices to the forms.
4. A separate nomination should be submitted for each proposed critical use. Provide separate nominations where the crops, the growing or storage conditions are substantially different (e.g. separate CUNs if the same product is produced in open field and protected environments or where though crops are similar e.g. solanaceous crops (tomato, eggplant, pepper) or cucurbits (melon, cucumber) cultural practices, control methods and registration of alternatives may differ significantly).
5. Incorporate, by reference, information from the prior nominations, as appropriate.
6. Wherever possible, an electronic version of the nomination in addition to a paper copy should be submitted. Where electronic copies of attachments are not available, this must be clearly advised in the nomination.

#### *3.5.2 Naming convention for documents*

As a result of difficulties managing the numerous documents submitted to MBTOC, we are suggesting an improved naming convention for CUNs and associated documents. Each electronic file name should follow a consistent nomenclature.

- Nominating Party abbreviation – 2-3 spaces e.g. *USA, BEL*
- Document series number attached to the Party abbreviation– each application from the Party should be consecutively numbered – use 2 spaces e.g. *01,02, etc*
- Critical-use nomination with the year for which the exemption would apply - 7 spaces e.g. *CUN07*. *If a CUN applies to more than one year, indicate the relevant years, e.g. CUN0607*
- Category – 3-4 spaces e.g. Soil, Str (Structure), Com(Commodity), Obj(Object)
- Unique descriptive title within the category of use - up to 24 spaces e.g. *Ornamentals Open field, Melons Protected, Flour Mills (specific applicant name)*. It is especially important that each nomination have a separate, unique name, even when covering similar types of application.
- Each supporting document for a CUN should also be numbered with the number of the CUN it is supporting, with the appropriate extension to indicate it is a supporting document. See examples below.
- Cover letters that are applicable to several CUNs should be labeled with appropriate CUN name.

Completed Examples of CUNs:

USA01 CUN07 Soil Melons Protected  
 UK05 CUN07 Str Flour Mill NABIM or  
 BEL09 CUN07 Str Historical Churches (Hunt Pest)

Completed Examples of CUN supporting documents:

USA01.1 CUN07 Soil Melons Protected Research Report  
 UK05.2 CUN07 Str Flour Mill NABIM Heat Trial Report  
 BEL09.3 CUN07 Str Historical Churches (Hunt Pest) EC letter

### 3.5.3 Naming convention for references

Limit the reference citations to those that are relevant to the exemption application. The following format for citations is suggested:

1. Becker J.O., Ohr H.D., Grech N.M., McGiffen M.E. and Sims J.J. 1998. Evaluations of methyl iodide as a soil fumigant in container and small field plot studies. *Pesticide Science* 52: 58-62.
2. Jacobi K.K., MacRae E.A. and Heatherington. S.E. 2001. Postharvest heat disinfestation treatments of mango fruit. *Scientia Horticulturae* 89: 171 –193.
3. Kawakami F. 1999. Current research of alternatives to methyl bromide and its reduction in Japanese Plant Quarantine. *Res. Bull. Pl. Prot. Japan* 35: 109-120.
4. Porter I.J., Mattner S.W., Brett R.W., Nicholls J.W., Rae J. and Bianco V. 2000. Plant-back, IGR and soil health influences the selection of MB alternatives in Australia. *Proc. 2000 Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions*, Orlando, Florida. Paper 23.

### 3.5.4 *Address for submitting nominations*

All nominations should be forwarded, in both electronic and hard-copy format, to:

The Secretariat for the Vienna Convention and the Montreal Protocol  
Ozone Secretariat  
United Nations Environment Programme (UNEP)  
P.O. Box 30552  
Nairobi  
Kenya

Telephone +254 20 62 1234 or 62 3850  
Fax +254 20 62 4691 / 62 4692 / 62 4693  
E-mail: [ozoneinfo@unep.org](mailto:ozoneinfo@unep.org)

Electronic copies of each nomination should also be sent to the co-chairs of MBTOC:

Dr. Jonathan Banks: [apples3@bigpond.au](mailto:apples3@bigpond.au)

Dr. Mohamed Besri: [m.besri@iav.ac.ma](mailto:m.besri@iav.ac.ma)

Ms. Michelle Marcotte: [marcotteconsulting@comcast.net](mailto:marcotteconsulting@comcast.net)

Ms. Marta Pizano: [mpizano@hortitecnia.com](mailto:mpizano@hortitecnia.com)

Dr. Ian Porter: [Ian.J.Porter@dpi.vic.gov.au](mailto:Ian.J.Porter@dpi.vic.gov.au)

Here follow suggested forms for Critical Use Nominations for preplant applications (Please use the same form for new or continuing nominations), and for new or renomination of commodities, structures and objects. These forms are also available separately at the Ozone Secretariat website or by fax or mail from the Ozone Secretariat.



## **Chapter 4. Methyl Bromide Critical Use Nomination for preplant soil use (open field or protected environment)**

### **Form 1. (For New and Continuing Nominations)**

Note: For continuing nominations insert the words 'Information previously supplied in [Year] nomination is correct' or give variations to this information, as appropriate.

•

**NOMINATING PARTY:**

**NAME (AS PER NAMING CONVENTION, Para 3.5.2 of Handbook)**

**BRIEF DESCRIPTIVE TITLE OF NOMINATION:**

**CROP NAME (OPEN FIELD OR PROTECTED):**

**QUANTITY OF METHYL BROMIDE REQUESTED IN EACH YEAR OF NOMINATION:**

**SUMMARY OF ANY SIGNIFICANT CHANGES SINCE SUBMISSION OF PREVIOUS  
NOMINATIONS:**

**REASON OR REASONS WHY ALTERNATIVES TO METHYL BROMIDE ARE NOT  
TECHNICALLY AND ECONOMICALLY FEASIBLE:**

*(Details on this page are requested under Decision Ex. I/4(7), for posting on the Ozone Secretariat website under Decision Ex. I/4(8).)*

**NOMINATING PARTY CONTACT DETAILS:**

Contact Person: \_\_\_\_\_

Title: \_\_\_\_\_

Address (include  
city/code numbers): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Following the requirements of Decision IX/6 paragraph (a)(1) [*insert name of Party*] has determined that the specific use detailed in this Critical Use Nomination is critical because the lack of availability of methyl bromide for this use would result in a significant market disruption.

Yes

No

\_\_\_\_\_  
Signature                                      Name                                      Date  
Title: \_\_\_\_\_

**CONTACT OR EXPERT(S) FOR FURTHER TECHNICAL DETAILS**

Contact/Expert Person: \_\_\_\_\_

Title: \_\_\_\_\_

Address (include  
City/code numbers): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

**LIST OF DOCUMENTS SENT TO THE OZONE SECRETARIAT IN OFFICIAL NOMINATION PACKAGE**

List all paper and electronic documents submitted by the Nominating Party to the Ozone Secretariat.

1. PAPER DOCUMENTS: Title of paper documents and appendices	No. of pages	Date sent to Ozone Secretariat
2. ELECTRONIC COPIES OF ALL PAPER DOCUMENTS: *Title of each electronic file (for naming convention see notes above)	No. of kilobytes	Date sent to Ozone Secretariat

- Identical to paper documents

**DETAILED [INSERT YEAR] PREPLANT SOIL NOMINATION**

**Part A: INTRODUCTION**

**1. NOMINATING PARTY AND NAME AS PER NAMING CONVENTION**

*Para 3.5.2 of Handbook:*

**2. DESCRIPTIVE TITLE OF NOMINATION:**

**3. CROP AND SUMMARY OF CROP SYSTEM**

*(e.g. open field (including tunnels added after treatment), permanent glasshouses (enclosed), open ended polyhouses, others (describe)):*

**4. TOTAL AMOUNT OF METHYL BROMIDE NOMINATED**

*(give quantity requested (metric tonnes) and years of nomination):*

Quantity requested for previous nomination year: \_\_\_\_\_

Quantity recommended for previous nomination year  
by Methyl Bromide Technical Options Committee/  
Technology and Economic Assessment Panel: \_\_\_\_\_

Quantity approved by Parties for previous nomination year: \_\_\_\_\_

Quantity required for year to which this reapplication refers: \_\_\_\_\_

**5. SIGNIFICANT CHANGES IN MB USAGE REQUIREMENTS**

*(e.g. Increased adoption of alternative, dosage rate change, registration changes, adoption of barrier films, etc.)*

**6. BRIEF SUMMARY OF THE NEED FOR METHYL BROMIDE AS A CRITICAL USE**

*(e.g. no registered pesticides or alternative processes for the particular circumstance, plantback period too long, lack of accessibility to glasshouse, unusual pests):*

**7. STATE WHETHER THE USE COVERED BY A CERTIFICATION STANDARD.** *(Please provide a copy of the certification standard and give basis of standard (e.g. industry standard, federal legislation etc.). Is methyl bromide-fumigation required exclusively to meet the standard or are alternative treatments permitted? Please state the minimum use rate for MB? Provide data which shows that alternatives can or cannot achieve disease tolerances or other measures that form the basis of the certification standard).*

**8. SUMMARISE WHY KEY ALTERNATIVES ARE NOT FEASIBLE**

*Summary should address why the two to three best identified alternatives are not suitable, < 200 words:*

1.

**9. HISTORIC PATTERN OF USE OF METHYL BROMIDE, AND/OR MIXTURES CONTAINING METHYL BROMIDE, FOR WHICH AN EXEMPTION IS REQUESTED**

*Add separate table for each major region specified in Question 8*

<b>For as many years as possible as shown specify:</b>	<b>1998</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Area treated (hectares)								
Ratio of broadacre MB use to strip/bed use if strip treatment is used								
Amount of MB active ingredient used (total kg)								
Formulations of MB. (e.g. MB/Pic 98:2, 70:30)								
Method by which MB applied (e.g. injected at 25cm depth, hot gas)								
Application rate of formulations in kg/ha*								
Actual dosage rate of formulations (g/m <sup>2</sup> )*								

\*For broadacre treatment application rate and dosage rate may be the same

**10. BREAKDOWN IN THE REGIONAL AMOUNT OF METHYL BROMIDE  
REQUESTED FOR CRITICAL USE IN THIS NOMINATION**

*Duplicate table if a number of different MB formulations are being requested and/or the request is for more than one specified region:*

REGION.....

<b>Year of exemption request</b>	<b>(Insert Year)</b>		
Quantity of MB nominated (metric tonnes)			
Total crop area to be treated with the MB or MB/Pic formulation (m <sup>2</sup> or ha) (Note: ignore reductions for strip treatment)			
MB use: broadacre or strip/bed treatment?			
Proportion of broadacre area which is treated in strips; e.g. 0.54, 0.67			
<b>Formulation</b> (ratio of MB/Pic mixture) to be used for calculation of the CUE e.g. 98:2, 67:33, 50:50			
Application method (hot gas, tyne injection, etc.)			
Application rate* (kg/ha) for the <b>formulation</b>			
Dosage rate* (g/m <sup>2</sup> ) (i.e. actual rate of formulation applied to the area treated with MB/Pic only)			

\* Give here actual rate per treated area (e.g. the area directly treated under film) not rate per total area of field.

**11. SUMMARISE ASSUMPTIONS USED TO CALCULATE MB QUANTITY  
NOMINATED FOR EACH REGION**

*Include any available data on historical levels of use.*

## 12. PROPORTION OF CROP GROWN USING METHYL BROMIDE

*Provide local data as well as national figures. Crop should be defined carefully so that it refers specifically to that which uses or used methyl bromide. For instance processing tomato crops should be distinguished from round tomatoes destined for the fresh market):*

<b>Region where MB use is requested</b>	<b>Total crop area in 2005 (Ha)</b>	<b>Proportion of total crop area treated with methyl bromide in 2005 (%)</b>
A		
B		
C		
<b>National Total:</b>		

Add more rows if necessary. If more recent data is available please supply.

**i. If part of the crop area is treated with MB, indicate the reason why methyl bromide is not used in the other area, and identify what alternative strategies are used in this area to control the target pathogens and weeds without methyl bromide.**

**ii. Would it be feasible to expand the use of these methods to cover at least part of the crop that has requested use of MB? What changes would be necessary to enable this?**

Part B: CROP CHARACTERISTICS AND MB USE

**13. KEY DISEASES AND WEEDS FOR WHICH MB IS REQUESTED AND SPECIFIC REASON FOR THIS REQUEST IN EACH REGION**

List only those target weeds and pests for which methyl bromide is the only feasible alternative and for which CUE is being requested:

Region where MB use is requested	Key disease(s) and weed(s) to species and, if known, to level of race	Specific reasons why MB needed (e.g. Effective herbicide available, but not registered for this crop; mandatory requirement to meet certification for disease tolerance; no host resistance for a specific race)
A		
B		
C		

Add extra rows if necessary

**14. CHARACTERISTICS OF CROPPING SYSTEM AND CLIMATE**

Place major attention on the key characteristics that affect the adoption of alternatives:

CHARACTERISTICS	Region where MB is requested			
	A	B	C	D
Crop type, e.g. transplants, bulbs, trees or cuttings				
Annual or perennial crop (state number of years between replanting)				
Typical crop rotation (if any) and use of MB for other crops in the rotation (if any)				
Soil types: (Sand loam, clay, etc.)				
Typical dates of planting and harvest				
Typical dates of MB fumigation				
Frequency of MB fumigation (e.g. every two years)				
Typical soil temperature range during MB fumigation (e.g. 15-20°C)				
Climatic zone (e.g. temperate, tropical)				
Range in average temperature variations in mid winter and mid summer (e.g. min/max °C) (e.g. Jan 5-15°C, July 10-30°C)				
Other relevant factors:				



CHARACTERISTICS	Region where MB is requested			
	A	B	C	D

**i. Indicate if any of the above characteristics in 11 prevent the adoption of any relevant alternatives?**

Part C: TECHNICAL VALIDATION

**15. DETAILED REASON FOR ALTERNATIVES NOT BEING FEASIBLE**

*Provide detailed information on the relative effectiveness of a minimum of the best two or three alternatives as identified and evaluated by the Party, and a summary of effectiveness of other alternatives (for assistance on potential alternatives refer to MBTOC Assessment reports, available at <http://www.unep.org/ozone/teap/MBTOC>, other published literature on MB alternatives:*

**\*\*PLEASE PROVIDE ALL REFERENCES USED TO SUPPORT THE NEED FOR METHYL BROMIDE and lack of performance or suitability of alternatives.**

Name of alternative	Technical and regulatory* reasons for the alternative not being feasible or available	**References

Add more rows if necessary

\* Regulatory reasons include local restrictions (e.g. occupational health and safety, local environmental regulations) and lack of registration.

\*\* References or citations should be recorded by a number only, to indicate citations listed in Question 27.

**16. PROVIDE EVIDENCE (DATA, TABLES REFERENCES) FOR THE EFFECTIVENESS OF RELEVANT ALTERNATIVES COMPARED TO METHYL BROMIDE FOR THE SPECIFIC KEY TARGET PESTS AND WEEDS FOR WHICH IT IS BEING REQUESTED**

*Use the same regions as in Section 10 and provide a separate table for each target pest or disease for which MB is considered critical. Provide information in relation to a minimum of the best two or three alternatives:*

A: KEY PATHOGENS: .....

MB, Chemical (include dosage rates and application method) and Non Chemical Alternatives	COMPARATIVE DISEASE incidence /severity ( % ) or RATING AND YIELDS OF CROPS WITH ALTERNATIVES AND METHYL BROMIDE TREATMENTS IN TRIALS SINCE 2001 (3-4 LAST YEARS)					
	Year	Trial	Disease (%)	yields (t/ha)	Statistical significance	Citation number (see Question 22)

Add more rows if necessary

B: KEY WEEDS: .....

MB, Chemical (include dosage rates and application method) and Non chemical Alternatives	COMPARATIVE WEED NUMBER, BIOMASS AND YIELDS OF CROPS WITH ALTERNATIVES AND METHYL BROMIDE TREATMENTS IN TRIALS SINCE 2001 (LAST .3 -4 YEARS)					
	Year	Trial	Control of target weed (e.g. population per m <sup>2</sup> ), Biomass	Actual yields	Significance	Citation number (see Question 22)

Add more rows if necessary

## 17. PROGRESS IN REGISTRATION

*Where the original nomination identified that an alternative's registration was pending, but it was anticipated that one would be subsequently registered, provide information on progress with its*

registration. Where applicable, include any efforts by the Party to “fast track” or otherwise assist the registration of the alternative.

## **18. DEREGISTRATION OF ALTERNATIVES**

*Describe new regulatory constraints that limit the availability of alternatives. For example, changes in buffer zones, new township caps, new safety requirements (affecting costs and feasibility). Where a potential alternative identified in the original nomination’s transition plan has subsequently been deregistered, the nominating Party should report the deregistration including reasons for it. The nominating Party should also report on the deregistration’s impact (if any) on the exemption holder’s transition plan and on the proposed new or alternative efforts that will be undertaken by the exemption holder to maintain the momentum of transition efforts.*

## **19. LIST AND DISCUSS WHY REGISTERED FUNGICIDES, NEMATICIDES AND HERBICIDES ARE CONSIDERED NOT EFFECTIVE AS TECHNICAL ALTERNATIVES TO MB**

*Provide information on a minimum of two best alternatives and summary response data where available for other alternatives:*

## **20. ARE THERE ANY OTHER POTENTIAL ALTERNATIVES UNDER DEVELOPMENT THAT THE PARTY IS AWARE OF WHICH ARE BEING CONSIDERED TO REPLACE METHYL BROMIDE?**

*If so, please specify:*

## **21. ARE THERE TECHNOLOGIES BEING USED TO PRODUCE THE CROP WITHOUT METHYL BROMIDE?**

*For example, soilless systems, grafting, solarisation, plug plants, containerised plants. State proportion of crop already grown in such systems nationally and if any constraints exist to adoption of these systems to replace MB use. State whether such technologies could replace a proportion of proposed MB use:*

**i . If non-chemical alternatives are considered feasible (e.g. soilless culture, grafting, solarisation etc...), state the proportion of crop being produced with these alternatives within the region applying for the nomination and nationally**

**ii. IF NOT, WHY ARE THESE ALTERNATIVES NOT SUITABLE TO PRODUCE THE CROP IN THE NOMINATION?**

**Part D: EMISSION CONTROL**

**22. TECHNIQUES THAT HAVE AND WILL BE USED TO MINIMISE METHYL BROMIDE USE AND EMISSIONS IN THE PARTICULAR USE (State % adoption or describe change):**

<b>Technique or step taken</b>	<b>Low permeability barrier films</b>	<b>MB dosage reduction</b>	<b>Increased % chloropicrin in MB formulation</b>	<b>Deep injection</b>	<b>Less frequent application</b>
What use/emission reduction methods are presently adopted?					
What further use/emission reduction steps will be taken for the MB used for critical uses?					
Other measures (please describe)					

**23. IF METHYL BROMIDE EMISSION REDUCTION TECHNIQUES ARE NOT BEING USED, OR ARE NOT PLANNED FOR THE CIRCUMSTANCES OF THE NOMINATION, STATE REASONS:**

## 24. ECONOMIC INFEASIBILITY OF ALTERNATIVES – METHODOLOGY

*MBTOC will assess economic infeasibility based on the methodology submitted by the nominating Party. Partial budget analysis showing per hectare gross and net returns for methyl bromide and the next best alternatives is a widely accepted approach. Analysis should be supported by discussions identifying what costs and revenues change and why. The following measures may be useful descriptors of the economic outcome using methyl bromide or alternatives. Parties may identify additional measures. Regardless of the measures used by the methodology, it is important to state why the Party has concluded that a particular level of the measure demonstrates a lack of economic feasibility.*

The following measures or indicators may be used as a guide for providing such a description:

- (a) The purchase cost per kilogram of methyl bromide and of the alternative;
- (b) Gross and net revenue with and without methyl bromide, and with the next best alternative;
- (c) Percentage change in gross revenues if alternatives are used;
- (d) Absolute losses per hectare relative to methyl bromide if alternatives are used;
- (e) Losses per kilogram of methyl bromide requested if alternatives are used;
- (f) Losses as a percentage of net cash revenue if alternatives are used;
- (g) Percentage change in profit margin if alternatives are used.

## Part F: NATIONAL MANAGEMENT STRATEGY FOR PHASE-OUT OF THIS NOMINATED CRITICAL USE

*MBTOC encourages Parties to annually provide an update of their National Management Strategy for Phase-out of Methyl Bromide as submitted under Decision Ex. I/4(3) for nominations after 2005. Parties may wish to submit this Section separately to the nomination.*

## 25. DESCRIBE THE FUTURE RESEARCH AND DEVELOPMENT PLAN BEING CONDUCTED FOR FURTHER EVALUATION OF ALTERNATIVES (A REQUIREMENT UNDER DECISION IX/6)

## 26. DESCRIBE MANAGEMENT STRATEGIES THAT ARE IN PLACE OR PROPOSED TO PHASE OUT THE USE OF METHYL BROMIDE FOR THE NOMINATED CRITICAL USE, INCLUDING :

- 1) Measures to avoid any increase in methyl bromide consumption except for unforeseen circumstances;

- 2) Measures to encourage the use of alternatives through the use of expedited procedures, where possible, to develop, register and deploy technically and economically feasible alternatives;
- 3) Provision of information on the potential market penetration of newly deployed alternatives and alternatives which may be used in the near future, to bring forward the time when it is estimated that methyl bromide consumption for the nominated use can be reduced and/or ultimately eliminated;
- 4) Promotion of the implementation of measures which ensure that any emissions of methyl bromide are minimized;
- 5) Actions to show how the management strategy will be implemented to promote the phase-out of uses of methyl bromide as soon as technically and economically feasible alternatives are available, in particular describing the steps which the Party is taking in regard to subparagraph (b) (iii) of paragraph 1 of Decision IX/6 in respect of research programmes in non-Article 5 Parties and the adoption of alternatives by Article 5 Parties.

## **27. CITATIONS**

*(allocate a number to each reference, and use this number in the text):*

**Chapter 5. Methyl Bromide Critical Use Nomination for structures, commodities or objects.**

**Form 2. Nomination for new uses**

**SUMMARY PAGE**

**NOMINATING PARTY:**

**NAME AS PER NAMING CONVENTION, Para 3.5.2 of Handbook**

**BRIEF DESCRIPTIVE TITLE OF NOMINATION:**

**STRUCTURE, COMMODITY OR OBJECT TREATED:**

**QUANTITY OF METHYL BROMIDE REQUESTED IN EACH YEAR OF NOMINATION:**

**REASON OR REASONS WHY ALTERNATIVES TO METHYL BROMIDE ARE NOT TECHNICALLY AND ECONOMICALLY FEASIBLE:**

*(Details on this page are requested under Decision Ex. I/4(7), for posting on the Ozone Secretariat website under Decision Ex. I/4(8))*



**NOMINATING PARTY CONTACT DETAILS:**

Contact Person: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address (include  
city/code numbers): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

Following the requirements of Decision IX/6 paragraph (a)(1) [*insert name of Party*] has determined that the specific use detailed in this Critical Use Nomination is critical because the lack of availability of methyl bromide for this use would result in a significant market disruption.

- Yes                       No

\_\_\_\_\_  
Signature                      Name                      Date  
Title: \_\_\_\_\_

**CONTACT OR EXPERT/S FOR FURTHER TECHNICAL DETAILS**

Contact Person: \_\_\_\_\_

Title: \_\_\_\_\_

Address (include  
city/code numbers): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

**LIST OF DOCUMENTS SENT TO THE OZONE SECRETARIAT IN OFFICIAL NOMINATION PACKAGE**

List all paper and electronic documents submitted by the Nominating Party to the Ozone Secretariat

<b>1. PAPER DOCUMENTS: Title of paper documents and appendices</b>	<b>No. of pages</b>	<b>Date sent to Ozone Secretariat</b>
<b>2. ELECTRONIC COPIES OF ALL PAPER DOCUMENTS: *Title of each electronic file (for naming convention see notes above)</b>	<b>No. of kb</b>	<b>Date sent to Ozone Secretariat</b>

\* Identical to paper documents

Part A: INTRODUCTION

**1. NOMINATING PARTY AND NAME AS PER NAMING CONVENTION, Para 3.5.2 of Handbook:**

**2. DESCRIPTIVE TITLE OF NOMINATION**

*< 15 words:*

**3. SITUATION OF NOMINATED METHYL BROMIDE USE**

*e.g. food processing structure, commodity (specify):*

**4. METHYL BROMIDE NOMINATED**

*Give quantity requested and years of nomination:*

**5. BRIEF SUMMARY OF THE NEED FOR METHYL BROMIDE AS A CRITICAL USE**

*Describe the particular aspects of the nominated use that make methyl bromide use critical, e.g. lack of economic alternatives, unacceptable corrosion risk, lack of efficacy of alternatives under the particular circumstances of the nomination:*

**6. METHYL BROMIDE CONSUMPTION FOR PAST 5 YEARS AND AMOUNT REQUIRED IN THE YEAR(S) NOMINATED:**

	<b>Year</b>	<b>Metric tonnes</b>	<b>Actual (A) or estimate (E)</b>
Previous years			
Year(s) of nomination			

**7. LOCATION OF THE FACILITY OR FACILITIES WHERE THE PROPOSED CRITICAL USE OF METHYL BROMIDE WILL TAKE PLACE**

Give name and physical address. Continue on separate sheet(s) as annex to this form if necessary. Number each address from one onwards. If the list is not available, or can not be made available to MBTOC, the Party is requested to indicate that it has checked the list of addresses and confirmed that there is no double-counting or that other methods have been used to ensure that an applicant only applies for methyl bromide in one application. This is particularly important when pest control operators apply for methyl bromide on behalf of customers or potential customers.

**Part B: SITUATION CHARACTERISTICS AND MB USE**

**8. KEY PESTS FOR WHICH METHYL BROMIDE IS REQUESTED:**

No	Genus and species for which the use of methyl bromide is critical	Common name	Indicate if <u>common</u> or <u>minor pest</u>
1			
2			
3			

Add more rows if required

**9. SUMMARY OF THE CIRCUMSTANCES IN WHICH THE METHYL BROMIDE IS CURRENTLY BEING USED**

Give ranges of dosage, exposure or temperatures, if appropriate

**(a) Commodities**

No	Methyl bromide dosage (g m <sup>-3</sup> )	Exposure time (hours)	Temp. (°C)	Number of fumigations per year**	Proportion of product treated at this dose *	Fixed (F), mobile (M) or stack (S)
1						
2						
3						
4						

- Advise if this information is not available.
- \*\* Where only part of a structure is fumigated, count partial fumigations separately in this column

Add more rows if required

**(b) Fixed facilities**

	Type of construction and approximate age in years	Vol (m <sup>3</sup> ) or range	Number of facilities e.g. 5 silos	Gastightness estimate*
1				
2				
3				
4				

Add more rows if required

\*Give gastightness estimates where possible according to the following gastightness scale: 'A' - less than 25% gas loss within 24 hours or half loss time of pressure difference (e.g. 20 to 10 Pa ( $t_{1/2}$ )) greater than 1 minute; 'B' – 25-50% gas loss within 24 hours or half loss time of pressure difference greater than 10 seconds; 'C' – 50-90% gas loss within 24 hours or half loss time of pressure difference 1-10 second; 'D' – more than 90% gas loss within 24 hours or a pressure half loss time of less than 1 second.

**10. LIST ALTERNATIVE TECHNIQUES THAT ARE BEING USED TO CONTROL KEY TARGET PEST SPECIES IN THIS SECTOR**

*Include main alternative techniques for situations similar to the nomination such as given in MBTOC and TEAP reports indexed at <http://www.unep.org/ozone/teap/MBTOC> and in MBTOC Assessment Reports:*

**11. REGISTRATION OF ALTERNATIVES**

*Report registration status in your country of main alternatives techniques for the subject of this CUN. Include information that either restricts the use of the alternative, or broadens the use of the alternative compared to methyl bromide.*

**12. SUMMARISE THE ALTERNATIVE(S) TESTED, STARTING WITH THE MOST PROMISING:**

No.	Methyl bromide alternative	Month/Year project started and finished (e.g. Nov 99 – Oct 04)	Premises for which the CUN is requested where alternatives have been tested <sup>±</sup>	Organisation(s) undertaking the research	Summary of key results (maximum of 20 words per entry)	Comparison of efficacy of alternative with methyl bromide	Reference number*
1							
2							
3							
4							
5							
6							
7							
8							
9							

Add more rows or attach additional results as necessary.

± Place address number from Question 7 next to treatment e.g. 1-9 heat; 10 SF. This means heat was tested at address locations 1-9 and sulfuryl fluoride at location 10.

\* Use numbering of references as given in Question 16.

If necessary, any additional comments:

**13. SUMMARISE TECHNICAL REASONS, IF ANY, FOR EACH ALTERNATIVE NOT BEING FEASIBLE OR AVAILABLE FOR YOUR CIRCUMSTANCES**

*For economic constraints, see Question 14*

No.	Methyl bromide alternative (as shown in Q10)	Technical reason (if any) for the alternative not being feasible	Estimated month/year when the technical constraint <u>could</u> be solved
1			
2			
3			
4			
5			
6			

If necessary, add further details on why an alternative was not technically feasible:

**Part D: EMISSION CONTROL**

**14. HOW HAS THIS SECTOR REDUCED THE USE AND EMISSIONS OF METHYL BROMIDE IN THE SITUATION OF THE NOMINATION?**

*Describe procedures used to determine optimum methyl bromide dosages and exposures, improved sealing processes, (refer to gastightness standards given in Question 9(b) above) monitoring systems and other activities that are in place to minimise dosage and emissions. Is methyl bromide recapture equipment in use and if so describe its efficacy.*

**15. ECONOMIC FEASIBILITY OF ALTERNATIVES – METHODOLOGY**

*MBTOC will assess economic infeasibility based on the methodology submitted by the nominating Party. Partial budget analysis showing the operations' gross and net returns for methyl bromide and next best alternatives is a widely accepted approach. Analyses should be supported by discussions identifying which costs and revenues change and why. The following measures may be useful descriptors of the economic outcome using methyl bromide or alternatives. Parties may identify additional measures. Regardless of the methodology used, this section should explain why the calculated measures with the alternative are levels that indicate the alternative is not economically feasible. In the case of culturally significant and historical artifacts economic assessment is not necessary.*

The following measures or indicators may be used as a guide for providing such a description:

- (a) The purchase cost per kilogram of methyl bromide and of the alternative;
- (b) Gross and net revenue with and without methyl bromide, and with the next best alternative;
- (c) Percentage change in gross revenues if alternatives are used;
- (d) Losses per cubic meter relative to methyl bromide if alternatives are used;
- (e) Losses per kilogram of methyl bromide requested if alternatives are used;
- (f) Losses as a percentage of net cash revenue if alternatives are used;
- (g) Percentage change in profit margin if alternatives are used.



Part F: NATIONAL MANAGEMENT STRATEGY FOR PHASE-OUT OF THIS NOMINATED CRITICAL USE
--

*Provision of a National Management Strategy for Phase-out of Methyl Bromide is a requirement under Decision Ex. I/4(3) for nominations after 2005. The time schedule for this Plan is different than for CUNs. Parties may wish to submit Section 21 separately to the nomination.*

**16. DESCRIBE MANAGEMENT STRATEGIES THAT ARE IN PLACE OR PROPOSED TO ELIMINATE THE USE OF METHYL BROMIDE FOR THE NOMINATED CRITICAL USE, INCLUDING:**

- (1) Measures to avoid any increase in methyl bromide consumption except for unforeseen circumstances;
- (2) Measures to encourage the use of alternatives through the use of expedited procedures, where possible, to develop, register and deploy technically and economically feasible alternatives;
- (3) Provision of information on the potential market penetration of newly deployed alternatives and alternatives which may be used in the near future, to bring forward the time when it is estimated that methyl bromide consumption for the nominated use can be reduced and/or ultimately eliminated;
- (4) Promotion of the implementation of measures which ensure that any emissions of methyl bromide are minimised;
- (5) Actions to show how the management strategy will be implemented to promote the phase-out of uses of methyl bromide as soon as technically and economically feasible alternatives are available, in particular describing the steps which the Party is taking in regard to subparagraph (b) (iii) of paragraph 1 of Decision IX/6 in respect of research programmes in non-Article 5 Parties and the adoption of alternatives by Article 5 Parties.

**17. REFERENCES**

*Number each citation:*

**Form 3. Renomination of Methyl Bromide Critical use for Structures, Commodities or Objects**

**SUMMARY PAGE**

**NOMINATING PARTY:**

**NAME AS PER NAMING CONVENTION (Section 3.5.2 of this Handbook)**

**BRIEF DESCRIPTIVE TITLE OF NOMINATION:**

**STRUCTURE, COMMODITY OR OBJECT TREATED:**

**QUANTITY OF METHYL BROMIDE REQUESTED IN EACH YEAR OF NOMINATION:**

**SUMMARY OF ANY SIGNIFICANT CHANGES SINCE SUBMISSION OF PREVIOUS NOMINATIONS:**

*Details on this page are similar to those for new nominations requested under Decision Ex. I/4(7), for posting on the Ozone Secretariat website under Decision Ex. I/4(8)*

*This form is to be used by holders of single-year exemptions to reapply for a subsequent year's exemption for Structures, Commodities and Objects only (for example, a Party holding a single-year exemption for 2006 and/or 2007 seeking further exemptions for 2008). It does not replace the format for requesting a critical-use exemption for the first time.*

*In assessing nominations submitted in this format, TEAP and MBTOC will also refer to the original nomination on which the Party's first-year exemption was approved, as well as any supplementary information provided by the Party in relation to that original nomination. As this earlier information is retained by MBTOC, a Party need not re-submit that earlier information.*

**NOMINATING PARTY CONTACT DETAILS:**

Contact Person: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address (include  
city/code numbers): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

Following the requirements of Decision IX/6 paragraph (a)(1) [*insert name of Party*] has determined that the specific use detailed in this Critical Use Nomination is critical

because the lack of availability of methyl bromide for this use would result in a significant market disruption.

Yes                                   No

\_\_\_\_\_  
Signature                                  Name                                  Date

Title: \_\_\_\_\_

**CONTACT OR EXPERT(S) FOR FURTHER TECHNICAL DETAILS**

Contact/Expert Person: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address (include city/code numbers): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

**LIST OF DOCUMENTS SENT TO THE OZONE SECRETARIAT IN OFFICIAL NOMINATION PACKAGE**

List all paper and electronic documents submitted by the Nominating Party to the Ozone Secretariat.

1. PAPER DOCUMENTS: Title of paper documents and appendices	No. of pages	Date sent to Ozone Secretariat
2. ELECTRONIC COPIES OF ALL PAPER DOCUMENTS: )	No. of kilobytes	Date sent to Ozone Secretariat

Part A: SUMMARY INFORMATION

**1. NOMINATING PARTY AND NAME AS PER NAMING CONVENTION**

*Para 3.5.2 of Handbook:*

**2. BRIEF DESCRIPTIVE TITLE OF NOMINATION:**

**3. YEAR FOR WHICH EXEMPTION SOUGHT:**

**4. SUMMARY OF ANY SIGNIFICANT CHANGES SINCE SUBMISSION OF PREVIOUS NOMINATIONS**

*(e.g. changes to requested exemption quantities, successful trialling or commercialisation of alternatives, etc.)*

Part B: TRANSITION PLANS

*Provision of a National Management Strategy for Phase-out of Methyl Bromide is a requirement under Decision Ex. 1/4(3) for nominations after 2005. The time schedule for this Plan is different than for CUNs. Parties may wish to submit Section 21 separately to the nomination.*

**5. IF NOT ALREADY PROVIDED, DESCRIBE MANAGEMENT STRATEGIES THAT ARE IN PLACE OR PROPOSED TO ELIMINATE THE USE OF METHYL BROMIDE FOR THE NOMINATED CRITICAL USE INCLUDING:**

- (1) Measures to avoid any increase in methyl bromide consumption except for unforeseen circumstances;
- (2) Measures to encourage the use of alternatives through the use of expedited procedures, where

- possible, to develop, register and deploy technically and economically feasible alternatives;
- (3) Provision of information on the potential market penetration of newly deployed alternatives and alternatives which may be used in the near future, to bring forward the time when it is estimated that methyl bromide consumption for the nominated use can be reduced and/or ultimately eliminated;
  - (4) Promotion of the implementation of measures which ensure that any emissions of methyl bromide are minimized;
  - (5) Actions to show how the management strategy will be implemented to promote the phase-out of uses of methyl bromide as soon as technically and economically feasible alternatives are available, in particular describing the steps which the Party is taking in regard to subparagraph (b) (iii) of paragraph 1 of Decision IX/6 in respect of research programmes in non-Article 5 Parties and the adoption of alternatives by Article 5 Parties.

## Part C: TRANSITION ACTIONS

*Responses should be consistent with information set out in the applicant's previously-approved nominations regarding their transition plans, and provide an update of progress in the implementation of those plans.*

*In developing recommendations on exemption nominations submitted in 2003, 2004, 2005 and 2006, the Technology and Economic Assessment Panel in some cases recommended that a Party should explore the use of particular alternatives not identified in a nomination's transition plans. Where the Party has subsequently taken steps to explore use of those alternatives, information should also be provided in this section on those steps taken.*

*Questions 6 - 10 should be completed where applicable to the nomination. Where a question is not applicable to the nomination, write "N/A".*

### **6. TRIALS OF ALTERNATIVES**

*Where available, attach copies of trial reports. Where possible, trials should be comparative, showing performance of alternative(s) against a methyl bromide-based standard*

#### **i. Description and implementation status:**

#### **ii. Outcomes of trials:**

*Include any available data on outcomes from trials that are still underway. Where applicable, complete the table included at [Appendix I](#) identifying comparative disease ratings and yields with the use of methyl bromide formulations and alternatives.*

**iii. Impact on critical use nomination/required quantities:**

*For example, provide advice on any reductions to the required quantity resulting from successful results of trials.*

**iv. Actions to address any delays/obstacles in conducting or finalising trials:**

**7. TECHNOLOGY TRANSFER, SCALE-UP, REGULATORY APPROVAL FOR ALTERNATIVES**

**i. Description and implementation status:**

**ii. Outcomes achieved to date from technology transfer, scale-up, regulatory approval:**

**iii. Impact on critical use nomination/required quantities:**



*For example, provide advice on any reductions to the required quantity resulting from successful progress in technology transfer, scale-up, and/or regulatory approval.*

**iv. Actions to address any delays/obstacles:**

**8. COMMERCIAL SCALE-UP /DEPLOYMENT, MARKET PENETRATION OF ALTERNATIVES**

**i. Description and implementation status:**

**ii. Impact on critical use nomination/required quantities:**

*For example, provide advice on any reductions to the required quantity resulting from successful commercial scale-up/deployment and/or market penetration.*

**iii. Actions to address any delays/obstacles:**

**9. CHANGES TO TRANSITION PROGRAM**

*If the transition program outlined in the Party's original nomination has been changed, provide information on the nature of those changes and the reasons for them. Where the changes are significant, attach a full description of the revised transition program.*

## **10. OTHER BROADER TRANSITION ACTIVITIES**

*Provide information in this section on any other transitional activities that are not addressed elsewhere. This section provides a nominating Party with the opportunity to report, where applicable, on any additional activities which it may have undertaken to encourage a transition, but need not be restricted to the circumstances and activities of the individual nomination. Without prescribing specific activities that a nominating Party should address, and noting that individual Parties are best placed to identify the most appropriate approach to achieve a swift transition in their own circumstances, such activities could include market incentives, financial support to exemption holders, labelling, product prohibitions, public awareness and information campaigns, etc.*

## Part D: REGISTRATION OF ALTERNATIVES

*Progress in registration of a product will often be beyond the control of an individual exemption holder as the registration process is the responsibility of the manufacturer or supplier of the product. The speed with which registration applications are processed also can fall outside the exemption holder's control, resting with the nominating Party. Consequently, this section requests the nominating Party to report on any efforts it has taken to assist the registration process, but noting that the scope for expediting registration will vary from Party to Party.*

### **11. PROGRESS IN REGISTRATION**

*Where the original nomination identified that an alternative's registration was pending, but it was anticipated that one would be subsequently registered, provide information on progress with its registration. Where applicable, include any efforts by the Party to "fast track" or otherwise assist the registration of the alternative.*

### **12. DELAYS IN REGISTRATION**

*Where significant delays or obstacles have been encountered to the anticipated registration of an alternative, the exemption holder should identify the scope for any new/alternative efforts that could be undertaken to maintain the momentum of transition efforts, and identify a time frame for undertaking such efforts.*

### **13. DEREGISTRATION OF ALTERNATIVES**

*Describe new regulatory constraints that limit the availability of alternatives. For example, changes in buffer zones, new township caps, new safety requirements (affecting costs and feasibility), and new environmental restrictions such as to protect ground water or other natural resources. Where a potential alternative identified in the original nomination's transition plan has subsequently been deregistered, the nominating Party would report the deregistration including reasons for it. The nominating Party would also report on the impact of the deregistration (if any) on the exemption holder's transition plan and on the proposed new or alternative efforts that will be undertaken by the exemption holder to maintain the momentum of transition efforts.*

## Part E: IMPLEMENTATION OF MBTOC/TEAP RECOMMENDATIONS

*The Methyl Bromide Technical Options Committee and the Technology and Economic Assessment Panel may recommend that a Party explore and, where appropriate, implement alternative systems for deployment of alternatives or reduction of methyl bromide emissions.*

*Where the exemptions granted by a previous Meeting of the Parties included conditions (for example, where the Parties approved a reduced quantity for a nomination), the exemption holder should report on progress in exploring or implementing recommendations.*

*Information on any trialling or other exploration of particular alternatives identified in TEAP recommendations should be addressed in Part C.*

### 14. USE/EMISSION MINIMISATION MEASURES

*Where a condition requested the testing of an alternative or adoption of an emission or use minimisation measure, information is needed on the status of efforts to implement the recommendation. Information should also be provided on any resultant decrease in the exemption quantity arising if the recommendations have been successfully implemented. Information is required on what actions are being, or will be, undertaken to address any delays or obstacles that have prevented implementation.*

## Part F: ECONOMIC FEASIBILITY

### 15. ECONOMIC FEASIBILITY OF ALTERNATIVES – METHODOLOGY

*Where a nomination has been previously approved on the basis of the economic infeasibility of alternatives, provide information where applicable on any significant changes to the underlying economic factors, including if appropriate any modification to the economic methodology used in assessing infeasibility. Partial budget analysis showing gross and net returns for methyl bromide and the next best alternatives is a widely accepted approach. Analysis should be supported by discussions identifying what costs and revenues change and why. The following measures may be useful descriptors of the economic outcome using methyl bromide or alternatives. Parties may identify additional measures. Regardless of the methodology used, this section should explain why the calculated measures with the alternatives are levels that indicate the alternative is not economically feasible.*

- (a) The purchase cost per kilogram of methyl bromide and of the alternative;

- (b) Gross and net revenue with and without methyl bromide, and with the next best alternative;
- (c) Percentage change in gross revenues if alternatives are used;
- (d) Absolute losses per hectare/cubic metre if alternatives are used;
- (e) Losses per kilogram of methyl bromide requested if alternatives are used;
- (f) Losses as a percentage of net cash revenue if alternatives are used;
- (g) Percentage change in profit margin if alternatives are used.

**Part G: CHANGES TO QUANTITY OF METHYL BROMIDE REQUESTED**

*This section seeks information on any changes to the Party's requested exemption quantity.*

**16. CHANGES IN USAGE REQUIREMENTS**

*Provide information on the nature of changes in usage requirements, including whether it is a change in dosage rates, the number of hectares or cubic metres to which the methyl bromide is to be applied, and/or any other relevant factors causing the changes.*

**17. RESULTANT CHANGES TO REQUESTED EXEMPTION QUANTITY**

Quantity requested for previous nomination year: \_\_\_\_\_

Quantity recommended for previous nomination year  
by Methyl Bromide Technical Options Committee/  
Technology and Economic Assessment Panel: \_\_\_\_\_

Quantity approved by Parties for previous nomination year: \_\_\_\_\_

Quantity required for year to which this reapplication refers: \_\_\_\_\_

## **Chapter 6 - Reporting Accounting Framework for Critical Uses of Methyl Bromide**

The Parties, in paragraphs 9(e) and (f), requested TEAP to:

(e) Recommend an accounting framework for adoption by the Sixteenth Meeting of the Parties which can be used for reporting quantities of methyl bromide produced, imported and exported by Parties under the terms of critical-use exemptions, and after the end of 2005 to request each Party which has been granted a critical-use exemption to submit information together with its nomination using the agreed format;

(f) Provide, in consultation with interested Parties, a format for a critical-use exemption report, based on the content of annex I to the present report, for adoption by the Sixteenth Meeting of the Parties, and to request each Party which reapplies for a methyl bromide critical-use exemption after the end of 2005 to submit a critical-use exemption report in the agreed format;

The Sixteenth Meeting of the Parties, in Decision XVI/6 considered the accounting framework for CUE use of methyl bromide. The accounting framework has two parts: (i) a summary table, based closely on the reporting framework for essential uses (Form 1); and (ii) a table for reporting actual consumption figures against individual critical-use exemptions (Form 2). Form 1 was adopted by the Parties. Form 2 has not been adopted formally by the Parties.

The two forms are given below:

**Form 1 – Summary form. (This form was adopted by MOP16)**

All quantities of methyl bromide should be in metric tonnes.

A Year of Critical Use	B Quantity Exempted for year of Critical Use <sup>1</sup>	C Quantity Acquired by Production for CUE	D Quantity Acquired for Critical Use by Import and Country(s) of Production		E (C+D) Total Quantity Acquired for Critical Use	F (B-E) Authorised but not Acquired	G Stocks on Hand - Start of Year <sup>2</sup>	H (G+E) Available for Use in Current Year	I Used for Critical Use	J Quantity Destroyed by Approved Processes	K <sup>2</sup> (H-I-J) Stocks on Hand - End of Year <sup>3</sup>
			Amount	Country(s)							

- 1 Note that critical use for particular year may be the sum of quantities authorised by decision in more than one year.
- 2 National governments nominating critical uses should include quantities on hand as of 1 January 2005. National governments not able to estimate quantities on hand as of 1 January 2005 can track the subsequent inventory of methyl bromide produced for critical uses (Column K).
- 3 Carried forward as "On Hand at Start of Year" for next year.





## Appendix A – Excerpts from Protocol Provisions<sup>2</sup>

### Article 2: Control Measures

#### *Article 2H: Methyl Bromide*

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, its calculated level of consumption in 1991. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.
2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1999, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, seventy-five per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, seventy-five per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.
3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2001, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, fifty per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, fifty per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.
4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2003, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, thirty per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, thirty per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.
5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed zero. Each Party producing the substance shall, for the

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<sup>2</sup> For a consolidated description of Protocol provisions see "Handbook for the International Treaties for the Protection of the Ozone Layer", Sixth Edition, 2003, Ozone Secretariat.

same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1991. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be critical uses.

*5 bis.* Each Party shall ensure that for the twelve-month period commencing on 1 January 2005, and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed eighty per cent of the annual average of its production of the substance for basic domestic needs for the period 1995 to 1998 inclusive.

*5 ter.* Each Party shall ensure that for the twelve-month period commencing on 1 January 2015, and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

6. The calculated levels of production and consumption under this Article shall not include the amounts used by the Party for quarantine and pre-shipment applications.

### **Adjustments<sup>3</sup> relating to the controlled substance in Annex E (Annex IV of the 11th Meeting of the Parties, Beijing)**

#### *Article 2H: Methyl Bromide*

1. The third sentence of paragraph 5 of Article 2H of the Protocol shall be replaced by the following sentence:

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may, until 1 January 2002 exceed that limit by up to fifteen per cent of its calculated level of production in 1991; thereafter, it may exceed that limit by a quantity equal to the annual average of its production of the controlled substance in Annex E for basic domestic needs for the period 1995 to 1998 inclusive.

2. The following paragraphs shall be added after paragraph 5 of Article 2H of the Protocol:

*5 bis.* Each Party shall ensure that for the twelve-month period commencing on 1 January 2005 and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed eighty per cent of the annual average of its production of the substance for basic domestic needs for the period 1995 to 1998 inclusive.

*5 ter.* Each Party shall ensure that for the twelve-month period commencing on 1 January 2015 and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

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<sup>3</sup>

Decision XII/1 addresses a correction to this adjustment.

*Article 6: Assessment and Review of Control Measures*

Beginning in 1990, and at least every four years thereafter, the Parties shall assess the control measures provided for in Article 2 and Articles 2A to 2E, and the situation regarding production, imports and exports of the transitional substances in Group I of Annex C (Articles 2A to 2H) on the basis of available scientific, environmental, technical and economic information. At least one year before each assessment, the Parties shall convene appropriate panels of experts qualified in the fields mentioned and determine the composition and terms of reference of any such panels. Within one year of being convened, the panels will report their conclusions, through the Secretariat, to the Parties.

## **Appendix B – Extracts from Meeting Reports and Decisions of the Parties to the Montreal Protocol Relevant to Critical Uses of Methyl Bromide**

### **1. Extract from: The Report of the Thirteenth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer**

#### “VI. OTHER MATTERS

##### *A. Nominations for critical-use exemptions for applications of methyl bromide*

110. The representative of Australia introduced a conference room paper containing a draft decision on critical-use submissions for methyl bromide applications, representing the outcome of discussions by a contact group of Parties. She explained that the decision arose out of concerns previously expressed by the Technology and Economic Assessment Panel about the timing and content of critical-use submissions following the adoption of decision IX/6 at the Ninth Meeting of the Parties. Parties feared that in the absence of near-term guidance, different countries could submit different information, leading to difficulties in ensuring a fair and equitable review of exemption requests, and agreed that it would be desirable to establish a schedule for submission mirroring that already in place for essential-use exemptions.

111. The group had accepted the suggestion of the Methyl Bromide Technical Options Committee that essential components of a critical-use exemption request should include the following: name of crop/use for which the exemption was being requested; location of the use; basic information on related soil type and climate associated with areas where the exemption was being requested (if relevant); the pests or problems which methyl bromide was being used to control; historic use of methyl bromide in total kilograms, kilograms/hectare (or acre) and total hectares (or acres) covered; kilograms of methyl bromide requested in the exemption and the duration of the exemption requested; techniques used to minimize emissions (e.g. tarpaulins or methyl bromide injection techniques); cost of methyl bromide per hectare (or acre) and cost of alternatives tried; cost of application of methyl bromide and alternatives; cost of fixed and variable inputs; gross and net revenue; price received by the user and in major markets; and historic yield information with methyl bromide and alternatives (if available). The Technology and Economic Assessment Panel should make adjustments to the list to cover non-soil uses.

112. In addition, the provision of information demonstrating that appropriate efforts were being made to evaluate, commercialize and secure regulatory approval of alternatives and substitutes was required under decision IX/6. In that regard, the fullest information available should be provided on trials with alternatives and their results. Regarding alternatives, Parties should seek to ensure that users had tried the alternatives listed in past TEAP reports as available, or included an explanation showing that alternative was not feasible in the given situation, or what plans the applicant had to test or put in place the alternative. In any event, under decision IX/6 Parties must present a plan to test and switch to alternatives in the near term. Also under decision IX/6, Parties must provide information indicating that methyl bromide was not available from banked or recycled supplies.

113. The group had also felt that it would be useful for Parties submitting applications to consider possible ways to consolidate national applications in order to make review by the Technology and Economic Assessment Panel and the Parties more manageable. The group agreed that it would be useful for the Panel to make available, as soon as possible, a methyl bromide critical uses handbook, including the key application information requirements outlined above, and a consolidated list of alternatives that had been included in past reports of the Panel and the Methyl Bromide Technical Options Committee. The group also agreed that as issues relating to application of the economic criteria contained in decision IX/6 were likely to be difficult for the Committee to review, it would be useful to ask the Panel and the Committee to consider how to add agricultural economists to the membership of the Committee to assist it in the review of critical-use nominations.

114. Following a discussion, the preparatory segment decided to forward the draft decision, as amended, to the high-level segment for approval.”

## 2. Decisions on critical uses of methyl bromide.

### *Decision IX/6: Critical-use exemptions for methyl bromide*

1. To apply the following criteria and procedure in assessing a critical methyl bromide use for the purposes of control measures in Article 2 of the Protocol:
  - (a) That a use of methyl bromide should qualify as "critical" only if the nominating Party determines that:
    - (i) The specific use is critical because the lack of availability of methyl bromide for that use would result in a significant market disruption; and
    - (ii) There are no technically and economically feasible alternatives or substitutes available to the user that are acceptable from the standpoint of environment and health and are suitable to the crops and circumstances of the nomination;
  - (b) That production and consumption, if any, of methyl bromide for critical uses should be permitted only if:
    - (i) All technically and economically feasible steps have been taken to minimize the critical use and any associated emission of methyl bromide;
    - (ii) Methyl bromide is not available in sufficient quantity and quality from existing stocks of banked or recycled methyl bromide, also bearing in mind the developing countries' need for methyl bromide;
    - (iii) It is demonstrated that an appropriate effort is being made to evaluate, commercialize and secure national regulatory approval of alternatives and substitutes, taking into consideration the circumstances of the particular nomination and the special needs of Article 5 Parties, including lack of financial and expert resources, institutional capacity, and information. Non-Article 5 Parties must demonstrate that research programmes are in place to develop and deploy alternatives and substitutes. Article 5 Parties must demonstrate that feasible alternatives shall be adopted as soon as they are confirmed as suitable to the Party's specific conditions and/or that they have applied to the Multilateral Fund or other sources for assistance in identifying, evaluating, adapting and demonstrating such options;
2. To request the Technology and Economic Assessment Panel to review nominations and make recommendations based on the criteria established in paragraphs 1 (a) (ii) and 1 (b) of the present decision;
3. That the present decision will apply to Parties operating under Article 5 and Parties not so operating only after the phase-out date applicable to those Parties;

### *Decision IX/7: Emergency methyl-bromide use*

To allow a Party, upon notification to the Secretariat, to use, in response to an emergency event, consumption of quantities not exceeding 20 tonnes of methyl bromide. The Secretariat and the Technology and Economic Assessment Panel will evaluate the use according to the "critical methyl bromide use" criteria and present this information to the next meeting of the Parties for review and appropriate guidance on future such emergencies, including whether or not the figure of 20 tonnes is appropriate.

*Decision XIII/11: Procedures for applying for a critical use exemption for methyl-bromide.*

*Noting* that Parties not operating under paragraph 1 of Article 5 must cease production and consumption of methyl bromide for other than quarantine and pre-shipment applications from 1 January 2005, except for consumption and production that meet the levels agreed by the Parties for critical uses,

*Noting* the importance of providing the Parties not operating under paragraph 1 of Article 5 with early guidance on arrangements for implementing decision IX/6, which provides criteria and procedures for assessing a critical methyl bromide use,

*Noting* the need for the Parties to have adequate guidance to enable them to submit nominations for critical-use exemptions for consideration at the 15th Meeting of the Parties in 2003,

1. To note with appreciation the work of the Methyl Bromide Technical Options Committee (MBTOC) in presenting the information required in order adequately to assess nominations submitted in pursuance of decision IX/6 for critical-use exemptions and the ongoing work of the Technology and Economic Assessment Panel in preparing a consolidated list of alternatives to methyl bromide that had been included in past Technical and Economic Assessment Panel and MBTOC reports;
2. To request the Technology and Economic Assessment Panel to prepare a handbook on critical-use nomination procedures which provides this information, and the schedule for submission which reflects that currently employed in the essential-use nomination procedure;
3. To request the Technology and Economic Assessment Panel to finalize the consolidated list of alternatives to methyl bromide referred to in paragraph 1 and post it on its Website as soon as possible;
4. To request the Technology and Economic Assessment Panel to finalise the "Handbook on Critical Use Nominations for Methyl Bromide" by January 2002, and the Secretariat to post this Handbook on its Website as soon as possible;
5. To request the Technology and Economic Assessment Panel to engage suitably qualified agricultural economists to assist it in reviewing critical-use nominations.

*Decision XV/54. Categories of assessment to be used by the Technology and Economic Assessment Panel when assessing critical uses of methyl bromide*

*Recognizing* that Parties had difficulty in taking a decision on the appropriate amount of methyl bromide to use for critical uses,

*Mindful* that exemptions must comply fully with decision IX/6 and are intended to be limited, temporary derogations from the phase-out of methyl bromide,

1. To invite Parties with nominations that are currently categorized as "noted" in the Technology and Economic Assessment Panel 2003 supplementary report to submit additional information in support of their nominations, using the comments by the Technology and Economic Assessment Panel/Methyl Bromide Technical Options Committee in the October 2003 supplementary report as a guide to the additional information required. The Methyl Bromide Technical Options Committee co-chairs will provide additional guidance to assist Parties concerning the information required if so requested. Parties are requested to submit additional information to the Ozone Secretariat by 31 January 2004;
2. To request the Methyl Bromide Technical Options Committee to convene a special meeting, which should be held in sufficient time to allow a report by the Technology and Economic Assessment Panel to be released to the Parties no later than 14 February 2004;
3. To request the Technology and Economic Assessment Panel to evaluate the critical-use nominations for methyl bromide that are currently categorized as "noted" and re-categorize them as "recommended", "not recommended" or "unable to assess".

*Decision Ex.I/3. Critical-use exemptions for methyl bromide for 2005*

*Reaffirming* the obligation to phase out the production and consumption of methyl bromide in accordance with paragraph 5 of Article 2H by 1 January 2005, subject to the availability of an exemption for uses agreed to be critical by the Parties,

*Recognizing* that technically and economically feasible alternatives exist for most uses of methyl bromide,

*Noting* that those alternatives are not always technically and economically feasible in the circumstances of the nominations,

*Noting also* that Article 5 Parties have made substantial progress in the adoption of effective alternatives,

*Mindful* that exemptions must fully comply with decision IX/6, and are intended to be limited, temporary derogations from the phase-out of methyl bromide,

*Mindful also* that decision IX/6 permits the production and consumption of methyl bromide for critical uses only if it is not available in sufficient quantity and quality from existing stocks of banked or recycled methyl bromide,

*Recognizing* the desirability of a transparent presentation of data on alternatives to methyl bromide to assist the Parties to better understand the critical-use volumes and to gauge progress on and impediments to the transition,

*Recognizing also* that each Party should aim to significantly and progressively decrease its production and consumption of methyl bromide for critical uses with the intention of completely phasing out methyl bromide as soon as technically and economically feasible alternatives are available,

*Resolved* that each Party should revert to methyl bromide only as a last resort and in the situation when a technically and economically feasible alternative to methyl bromide which is in use ceases to be available as a result of de-registration or for other reasons,

*Taking into account* the recommendation by the Technology and Economic Assessment Panel (TEAP) that critical-use exemptions should not be authorized in cases where technically and economically feasible options are registered, available locally and used commercially by similarly situated enterprises,

*Noting with appreciation* the work done by TEAP and its Methyl Bromide Technical Options Committee (MBTOC),

1. For the agreed critical uses set forth in annex II A to the present report for each Party, to permit, subject to the conditions set forth in decision Ex.I/4, the levels of production and consumption set forth in annex II B to the present report which are necessary to satisfy critical uses, with the understanding that additional levels and categories of uses may be approved by the Sixteenth Meeting of the Parties in accordance with decision IX/6;
2. That a Party with a critical-use exemption level in excess of permitted levels of production and consumption for critical uses is to make up any such difference between those levels by utilizing quantities of methyl bromide from stocks that the Party has recognized to be available;
3. That a Party utilizing stocks under paragraph 2 above shall prohibit the use of stocks in the categories set forth in annex II A to the present report when amounts from stocks combined with allowable production and consumption for critical uses exceed the total level for that Party set forth in annex II A to the present report;
4. That Parties should endeavour to allocate the quantities of methyl bromide recommended by TEAP as listed in annex II A to the present report;
5. That each Party which has an agreed critical use should ensure that the criteria in paragraph 1 of decision IX/6 are applied when licensing, permitting or authorizing the use of methyl bromide and that such procedures take into account available stocks. Each Party is requested to report on the implementation of the present paragraph to the Ozone Secretariat;
6. To take note of the proposal by the United States of America on multi-year exemptions, as reflected in paragraph 7 of the paper reproduced in annex III to the present report, and to consider, at the Sixteenth Meeting of the Parties, the elaboration of criteria and a methodology for authorizing multi-year exemptions;
7. Bearing in mind that Parties should aim to significantly and progressively reduce their production and consumption of methyl bromide for critical-use exemptions, a Party may request reconsideration by the Meeting of the Parties of an approved critical-use exemption in the case of exceptional circumstances, such as unforeseen de-

registration of an approved methyl bromide alternative when no other feasible alternatives are available, or where pest and pathogens build resistance to the alternative, or where the use-reduction measures on which TEAP based its recommendation as to the level necessary to satisfy critical uses are demonstrated not to be feasible in the specific circumstances of that Party.

## *Annex II (Report of EMOP1)*

### **A. Agreed critical-use categories**

<b>Country</b>	<b>Categories of permitted critical uses (metric tonnes)</b>
Australia	Cut flowers – field (18.375); Cut flowers – protected (10.425); Cut flowers, bulbs – protected (7); Rice (consumer packs) (6.15); Strawberry fruit – field (67); Strawberry runners (35.75);
Belgium	Asparagus (planting material) (0.63); Chicory (0.18); Cucurbits (0.61); Cut flowers (excluding roses and chrysanthemum) (4); Cut flowers (chrysanthemum) (1.12); Leeks and onions – planting stock (0.66); Lettuce and endive – protected (25.19); Nursery (0.9); Orchard – pome fruit and berries – replant (1.35); Pepper, eggplant – protected (3); Strawberry runners (3.4); Tomatoes – protected (5.7); Tree nursery (0.23)
Canada	Pasta and flour mills (47); Strawberry runners (7.952)
France	Carrots (8); Chestnuts (2); Cut flowers, bulbs – protected and open field (60); Eggplant, pepper, tomato – protected and field (125); Forest nurseries (10); Mills and processors (40); Orchard and raspberry – replant (25); Orchard and raspberry nurseries (5); Rice (consumer packs) (2); Strawberry runners (40); Strawberry fruit – protected and open field (90);
Greece	Cucurbits – protected (30); Tomato – protected (156);
Italy	Cut flowers, bulbs – protected (250); Eggplant – protected (194); Melon – protected (131); Pepper – protected (160); Strawberry fruit – protected (407); Strawberry runners (120); Tomato – protected (871);
Japan	Chestnuts (4.6); Cucumber (39.4); Melon (94.5); Peppers (74.1); Watermelon (71.4)
Portugal	Cut flowers – protected and open field (50);
Spain	Cut flowers (Andalusia) – protected (53); Cut flowers (Catalonia) – carnation, protected and open field (20); Peppers – protected (200); Strawberry fruit – protected (556); Strawberry runners (230)
United Kingdom	Cheese stores (traditional) (1.640); Food storage (dry goods) – structure (1.1); Mills and processors (47.13); Miscellaneous dry nuts, fruit, beans, cereals, seeds (2.4); Ornamental tree nurseries (6); Spices (structural/equipment) (1.728); Stored spices (0.03); Strawberries and raspberries – fruit (68); Tobacco (product/machinery) (0.050)
United States of America	Chrysanthemum cuttings – rose plants (nursery) (29.412); Cucurbits – field (1187.8); Dried fruit, beans and nuts (86.753); Eggplant – field (73.56); Forest nursery seedlings (192.515); Fruit tree nurseries (45.8); Ginger production – field (9.2); Mills and processors (483); Orchard replant (706.176); Peppers – field (1085.3); Smokehouse ham – (building and product) (0.907); Strawberry fruit – field (1833.846); Strawberry runners (54.988); Sweet potato – field (80.83); Tomato – field (2865.3); Turfgrass (206.827)

### **B. Permitted levels of production and consumption of methyl bromide necessary to satisfy critical uses in 2005**

<b>Country</b>	<b>(metric tonnes of methyl bromide)</b>
Australia	145
Belgium*	47
Canada	55
France*	407
Greece*	186
Italy*	2,133
Japan	284
Portugal*	50
Spain*	1,059
United Kingdom*	128
United States of America	7,659

\* The production and consumption of the European Community shall not exceed 3,910 metric tonnes for the purposes of the agreed critical uses, and 100 metric tonnes of stocks.



*Decision Ex.I/4. Conditions for granting and reporting critical-use exemptions for methyl bromide*

*Mindful* of the principles set forth in the report<sup>4</sup> by the Chairman of the informal consultation on methyl bromide held in Buenos Aires on 4 and 5 March 2004, namely, fairness, certainty and confidence, practicality and flexibility, and transparency,

*Recognizing* that technically and economically feasible alternatives exist for most uses of methyl bromide,

*Noting* that those alternatives are not always technically and economically feasible in the circumstances of nominations,

*Noting* that Article 5 and non-Article 5 Parties have made substantial progress in the adoption of effective alternatives,

*Mindful* that exemptions must comply fully with decision IX/6 and are intended to be limited, temporary derogations from the phase-out of methyl bromide,

*Recognizing* the desirability of a transparent presentation of data on alternatives to methyl bromide to assist the Parties to better understand the critical-use volumes and to gauge progress on and impediments to the transition from methyl bromide;

*Resolved* that each Party should aim to significantly and progressively decrease its production and consumption of methyl bromide for critical uses with the intention of completely phasing out methyl bromide as soon as technically and economically feasible alternatives are available,

*Recognizing* that Parties should revert to methyl bromide only as a last resort, in the event that a technically and economically feasible alternative to methyl bromide which is in use ceases to be available as a result of de-registration or for other reasons,

1. That each Party which has an agreed critical use under the present decision should submit available information to the Ozone Secretariat before 1 February 2005 on the alternatives available, listed according to their pre-harvest or post-harvest uses and the possible date of registration, if required, for each alternative; and on the alternatives which the Parties can disclose to be under development, listed according to their pre-harvest or post-harvest uses and the likely date of registration, if required and known, for those alternatives. The Ozone Secretariat is requested to provide a template for that information and to post the said information in a database entitled "Methyl Bromide Alternatives" on its web site;

2. That each Party which submits a nomination for the production and consumption of methyl bromide for years after 2005 should also submit information listed in paragraph 1 to the Ozone Secretariat to include in its Methyl Bromide Alternatives database and that any other Party which no longer consumes methyl bromide should also submit information on alternatives to the Secretariat for inclusion in that database;

3. To request each Party which makes a critical-use nomination after 2005 to submit a national management strategy for phase-out of critical uses of methyl bromide to the Ozone Secretariat before 1 February 2006. The management strategy should aim, inter alia, to:

- (f) Avoid any increase in methyl bromide consumption except for unforeseen circumstances;
- (g) Encourage the use of alternatives through the use of expedited procedures, where possible, to develop, register and deploy technically and economically feasible alternatives;
- (h) Provide information, for each current pre-harvest and post-harvest use for which a nomination is planned, on the potential market penetration of newly deployed alternatives, and alternatives which may be used in the near future, to bring forward the time when it is estimated that methyl bromide consumption for such uses can be reduced and/or ultimately eliminated;
- (i) Promote the implementation of measures which ensure that any emissions of methyl bromide are minimized;
- (j) Show how the management strategy will be implemented to promote the phase-out of uses of methyl bromide as soon as technically and economically feasible alternatives are available, in particular describing the steps which the Party is taking in regard to subparagraph (b) (iii) of paragraph 1 of decision IX/6 in respect of research programmes in non-Article 5 Parties and the adoption of alternatives by Article 5 Parties;

4. To request the Meeting of the Parties to take into account information submitted pursuant to paragraphs 1 and 3 of the present decision when it considers permitting a Party to produce or consume methyl bromide for critical uses after 2006;

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4 UNEP/OzL.Pro.ExMP/1/INF/1, para. 11.

5. To request a Party that has submitted a request for a critical use exemption to consider and implement, if feasible, Technology and Economic Assessment Panel and Methyl Bromide Technical Options Committee recommendations on actions which a Party may take to reduce critical uses of methyl bromide;
6. To request any Party submitting a critical-use nomination after 2004 to describe in its nomination the methodology used to determine economic feasibility in the event that economic feasibility is used as a criterion to justify the requirement for the critical use of methyl bromide, using as a guide the economic criteria contained in section 4 of annex I to the present report;
7. To request each Party from 1 January 2005 to provide to the Ozone Secretariat a summary of each crop or post-harvest nomination containing the following information:
  - (f) Name of the nominating Party
  - (g) Descriptive title of the nomination;
  - (h) Crop name (open field or protected) or post-harvest use;
  - (i) Quantity of methyl bromide requested in each year;
  - (j) Reason(s) why alternatives to methyl bromide are not technically and economically feasible;
8. To request the Ozone Secretariat to post the information submitted pursuant to paragraph 7 above, categorized according to the year in which it was received, on its web site within 10 days of receiving the nomination;
9. To request the Technology and Economic Assessment Panel to:
  - (a) Identify options which Parties may consider for preventing potential harmful trade of methyl bromide stocks to Article 5 Parties as consumption is reduced in non-Article 5 Parties and to publish its evaluation in 2005 to enable the Seventeenth Meeting of the Parties to decide if suitable mitigating steps are necessary;
  - (b) Identify factors which Article 5 Parties may wish to take into account in evaluating whether they should either undertake new accelerated phase-out commitments through the Multilateral Fund for the Implementation of the Montreal Protocol or seek changes to already agreed accelerated phase-outs of methyl bromide under the Multilateral Fund;
  - (c) Assess "economic infeasibility", based on the methodology submitted by the nominating Party under paragraph 6 above, in making its recommendations on each critical-use nomination. The report by the Technology and Economic Assessment Panel should be made with a view to encouraging nominating Parties to adopt a common approach in assessing the economic feasibility of alternatives;
  - (d) Submit a report to the Open-ended Working Group at its twenty-sixth session on the possible need for methyl bromide critical uses over the next few years, based on a review of the management strategies submitted by Parties pursuant to paragraph 3 of the present decision;
  - (e) Review critical-use nominations on an annual basis and apply the criteria set forth in decision IX/6 and of other relevant criteria agreed by the Parties;
  - (f) Recommend an accounting framework for adoption by the Sixteenth Meeting of the Parties which can be used for reporting quantities of methyl bromide produced, imported and exported by Parties under the terms of critical-use exemptions, and after the end of 2005 to request each Party which has been granted a critical-use exemption to submit information together with its nomination using the agreed format;
  - (g) Provide, in consultation with interested Parties, a format for a critical-use exemption report, based on the content of annex I to the present report, for adoption by the Sixteenth Meeting of the Parties, and to request each Party which reapplies for a methyl bromide critical-use exemption after the end of 2005 to submit a critical-use exemption report in the agreed format;
  - (h) Assess, annually where appropriate, any critical-use nomination made after the end of 2006 in the light of the Methyl Bromide Alternatives Database information submitted pursuant to paragraph 1 of the present decision, and to compare, annually where appropriate, the quantity, in the nomination, of methyl bromide requested and recommended for each pre-harvest and post-harvest use with the management strategy submitted by the Party pursuant to paragraph 3 of the present decision;
  - (i) Report annually on the status of re-registration and review of methyl bromide uses for the applications reflected in the critical-use exemptions, including any information on health effects and environmental acceptability;
  - (j) Report annually on the status of registration of alternatives and substitutes for methyl bromide, with particular emphasis on possible regulatory actions that will increase or decrease dependence on methyl bromide;
  - (k) Modify the Handbook on Critical-use Nominations for Methyl Bromide to take the present decision and other relevant information into account, for submission to the Sixteenth Meeting of the Parties.

**Requirements for annual reporting of critical-use exemptions for methyl bromide**

**A. Introduction**

The format proposed here would apply to annual reporting by Parties that have obtained a critical-use exemption for a particular application. It is not intended to replace the format for requesting a critical-use exemption for a particular application for the first time.

It should be noted that, in addition to a reporting format for holders of multiple-year exemptions, Australia proposes that this format would also be used by holders of single-year exemptions to reapply for a subsequent year's exemption (for example, nominees approved for single-year exemptions for 2005 seeking further exemptions for 2006).

In addition, Australia notes that it may be useful for the following format to be prefaced by cover pages similar to those detailed in the 2003 critical use handbook, which summarize the critical-use nomination and provide the contact details of the nominating Party.

From 2005 onwards, Parties' experience in the submission and assessment of reporting on critical-use exemptions may reveal improvements that could usefully be made to the reporting parameters outlined in the present document. Acknowledging this potential, and to ensure continuous improvement of the exemption reporting process, it is noted that Parties will have the opportunity to review the annual reporting parameters at a future date to ensure that they continue:

- (a) To meet their expectations regarding the provision of transparent and adequate data on exemption holders' progress in achieving transition;
- (b) To provide a streamlined format that does not compromise the level of data required for scrutiny by the Parties, but also does not place an unnecessarily onerous burden on nominating Parties.

**Table 1: Report on transition efforts and activities**

<b>Transition efforts and activities</b>	<b>A. Description and implementation status</b>	<b>B. Outcomes to date</b>	<b>C. Impact on critical-use nomination/required quantities</b>	<b>D. Actions to address any delays/obstacles</b>	<b>E. Any re-changes to trials/other efforts</b>
1. Trials of alternatives					
2. Technology transfer, scale-up, regulatory approval					
3. Commercial scale-up/deployment, market penetration					
4. Any other broader transition activities					

**B. Reporting requirements**

**1. Implementation of the Parties' mandate on continued efforts to find alternatives**

*Column A* requires a description of the implementation of any trials, technology transfer activities and/or other transition activities that were identified in the earlier nomination, including advice on whether the activity is complete or still underway.

*Column B* requires a report on the results of the transition activities (e.g., trials of alternatives – yield results achieved with the alternative in comparison to those achieved through methyl bromide treatment; deployment – percentage of users represented in a nomination covered by deployment activities and now able to transition to alternatives). In the case of trials of alternatives, reporting would include attaching copies of formal scientific trial reports. Where formal trial reports are not available (for example, where an exemption holder's transition efforts focus on grower trials), the exemption holder

could include a description of all relevant parameters of the trials that are available. These could include data, as specified in the Technology and Economic Assessment Panel Handbook on Critical Use Nominations for Methyl Bromide, such as soil and climate types in which the trials were conducted, plant-back times observed, the rate of methyl bromide and alternatives application (kg/hectare or g/m<sup>2</sup>), the proportionate mix of methyl bromide and chloropicrin, etc.

*Column C* requires a summary of the implication of the trial and activity results and outcomes, such as what impact they would have on the quantity of methyl bromide required for the critical-use nomination. For example, positive results from technology transfer or deployment activities could lead to the nominating Party identifying a reduction in the quantity required for the subsequent year of the exemption.

*Column D*: where any obstacles or delays beyond the control of the exemption holder arose to hinder their transition activities, this column requires a description of those obstacles or delays and a detailed plan, including time-specific milestones, for actions to address such problems and maintain the transition momentum.

*Column E*: where trials, technology transfer or other transition activities have been undertaken but have yielded negative results (e.g., trials demonstrated technical problems with an alternative, deployment activities revealed unanticipated economic infeasibility, etc), column E requires a description of the new or alternative transition activities to be undertaken by the exemption holder to overcome such obstacles to transition.

*Row 4*: “Any other broader transition activities” provides a nominating Party with the opportunity to report, where applicable, on any additional activities which it may have undertaken to encourage a transition, but need not be restricted to the circumstances and activities of the individual nomination. Without prescribing specific activities that a nominating Party should address, and noting that individual Parties are best placed to identify the most appropriate approach to achieve a swift transition in their own circumstances, such activities could include market incentives, financial support to exemption nominees and exemption holders, labelling, product prohibitions, public awareness and information campaigns, etc.

**Notes:** For an exemption holder or nominee to qualify for an exemption, a commitment must be demonstrated to finding technically and economically viable alternatives and achieving a transition to the use of alternatives. In particular, decision IX/6 requires the following of an exemption nominee:

“It is demonstrated that an appropriate effort is being made to evaluate, commercialize and secure national regulatory approval of alternatives and substitutes... Non-Article 5 Parties must demonstrate that research programmes are in place to develop and deploy alternatives and substitutes. Article 5 Parties must demonstrate that feasible alternatives shall be adopted as soon as they are confirmed as suitable to the Party's specific conditions...”

Section 1 provides the means by which exemption holders and nominees can report on their current progress in implementing that mandate. The nature of the information provided would vary according to the specific actions that had been outlined in each original nomination, but for ease of review the information should be structured as presented in table 1 above.

## 2. Registration of an alternative

Where a nomination identified that an alternative was not yet registered at the time of the original nomination's submission, but it was anticipated that one would be subsequently registered, the nominating Party should report on the progress of the alternative through the registration process. This report should include any efforts by the Party to “fast track” or otherwise assist the registration of the alternative.

Where significant delays or obstacles have been encountered to the anticipated registration of an alternative, the exemption holder should identify the scope for any new/alternative efforts that could be undertaken to maintain the momentum of transition efforts, and identify a time-frame for undertaking such efforts.

Where an alternative was de-registered subsequent to submission of the original nomination, the nominating Party would report the de-registration, including reasons for it. The nominating Party would also report on the de-registration's impact (if any) on the exemption holder's transition plan and on the proposed new or alternative efforts that will be undertaken by the exemption holder to maintain the momentum of transition efforts.

**Notes:** It is understood that progress in registration of a product will often be beyond the control of an individual exemption holder as the registration process must be undertaken by the manufacturer or supplier of the product. The speed with which registration applications are processed also falls outside the exemption holder's control, resting with the nominating Party. Consequently, this section requires the nominating Party to report on any efforts it has taken to assist the registration process, noting that the scope for expediting registration will vary from Party to Party.

In recognition of the fact that it would be unreasonable to revise exemption holders' nomination because of registration delays beyond their control, this section also requires a report on the actions that are being taken to continue transition despite registration delays.

### **3. Implementation of recommendations of the Methyl Bromide Technical Options Committee and the Technology and Economic Assessment Panel**

In developing recommendations on exemption nominations submitted in 2003, the Methyl Bromide Technical Options Committee and the Technology and Economic Assessment Panel in many cases recommended that nominees should explore and, more appropriate, implement:

- (a) Options for reducing the quantity of methyl bromide required; or
- (b) The use of particular alternatives not originally identified by the exemption holder as part of its transitional plan, but considered key alternatives by the Methyl Bromide Technical Options Committee and the Technology and Economic Assessment Panel.

Where the approval granted by the Meeting of the Parties' for exemptions included conditions incorporating those recommendations, the exemption-holder should report on its progress in exploring or implementing them as part of its annual reporting obligations.

Where a condition required the testing of an alternative or adoption of an emission minimization measure, reporting should be structured in the same format as table 1 (report on transition efforts and activities).

Where a condition related to an assessment of the economic viability of an alternative or measure to minimize use or emissions, the reporting should address the relevant economic data requirements identified in section 4 below.

### **4. Economic feasibility**

Where a nomination has been approved on the basis of the economic infeasibility of an alternative, the exemption holder should report any significant changes to the underlying economics. This could include any changes to:

- (h) The purchase cost per kilogram of methyl bromide and of the alternative;
- (i) Gross and net revenue with and without methyl bromide, and with the next best alternative;
- (j) Percentage change in gross revenues if alternatives are used;
- (k) Absolute losses per hectare/cubic metre if alternatives are used;
- (l) Losses per kilogram of methyl bromide requested if alternatives are used;
- (m) Losses as a percentage of net cash revenue if alternatives are used;
- (n) Percentage change in profit margin if alternatives are used.

**Notes:** Where an exemption has been approved on the basis of the economic infeasibility of an alternative, the exemption holder must have clearly described the nature of the economic infeasibility in its original nomination.

The economics of methyl bromide and of alternatives can be subject to changes over time, and it is possible that those changes could have an impact on the exemption holder's claim that an alternative is not economically viable and on its continuing eligibility for an exemption.

Given that criteria for assessing the economic feasibility of alternatives have not yet been agreed by the Parties, at the current time the seven data points identified above represent suggested guidance only. As criteria are developed and approved by the Parties for inclusion in the Technology and Economic Assessment Panel/MBTOC Handbook, the data to be provided in annual reporting would reflect those criteria and any accompanying new data requirements.

## 5. Reduction in quantity of methyl bromide required

Exemption holders should indicate whether the number of hectares or cubic metres identified in their earlier nominations has changed. Where the number has been reduced, the exemption holder should quantify any resultant change in the quantity of methyl bromide required.

**Notes:** The Critical Use Nomination Handbook requests pre-planting Parties making nominations to provide information on the number of hectares or cubic metres to be treated with methyl bromide.

In some cases, it is possible that the number of hectares or cubic metres to be treated could vary over time. As such variations can also change the quantity of methyl bromide required for the exemption, this section provides the means to monitor such variations.

### Exemption quantity details

Quantity requested in original nomination: \_\_\_\_\_

Quantity recommended by Methyl Bromide Technical Options Committee Technology and Economic Assessment Panel: \_\_\_\_\_

Quantity approved by Parties: \_\_\_\_\_

Quantity required for [year]: \_\_\_\_\_

### *Decision Ex.I/5. Review of the working procedures and terms of reference of the Methyl Bromide Technical Options Committee*

*Acknowledging* with appreciation the important and valuable work undertaken so far by the Methyl Bromide Technical Options Committee,

*Reaffirming* the need for the Methyl Bromide Technical Options Committee to sustain an optimum level of expertise to be able to address diverse types of alternatives to methyl bromide and the desirability of having a reasonable term of membership of the Methyl Bromide Technical Options Committee to ensure continuity;

*Noting* decision XIII/11, which requests the Technology and Economic Assessment Panel to engage suitably qualified agricultural economists to assist in reviewing nominations,

*Recognizing* the desirability of ensuring that some members of the Methyl Bromide Technical Options Committee have knowledge of alternatives that are used in commercial practice, and practical experience in technology transfer and deployment,

*Recognizing* the need to strengthen the Methyl Bromide Technical Options Committee and to enhance the transparency and efficiency of the Committee's process relating to the evaluation of nominations for critical-use exemptions,

*Noting* the terms of reference for the Technology and Economic Assessment Panel and its technical options committees adopted at the Eighth Meeting of the Parties,

*Mindful* that those terms of reference state that the overall goal is to achieve a representation of about 50 per cent for Article 5 Parties and noting that current Article 5 representation within the Methyl Bromide Technical Options Committee is only about 30 per cent,

*Recalling* decision XV/54 on categories of assessment to be used by the Technology and Economic Assessment Panel when assessing critical uses of methyl bromide,

1. To establish a process to review the working procedures and terms of reference of the Methyl Bromide Technical Options Committee as they relate to the evaluation of nominations for critical use exemptions;
2. That such a review shall consider, in particular:

- (a) The need to enhance the transparency and efficiency of the analysis and reporting by the Methyl Bromide Technical Options Committee on critical-use nominations, including the communication between the nominating Party and the Methyl Bromide Technical Options Committee;
- (b) The timing and structure of the Methyl Bromide Technical Options Committee reports on critical-use nominations;
- (c) The duration and rotation of membership, taking into account the need to provide for a reasonable turnover of members while also ensuring continuity;
- (d) The conflict-of-interest documents which must be completed by members of the Methyl Bromide Technical Options Committee;
- (e) The expertise required in the Methyl Bromide Technical Options Committee, taking into account among other things that the composition of the Methyl Bromide Technical Options Committee should ensure that some members have practical and first-hand experience which should relate, in particular, to replacing methyl bromide with alternatives, and that within that composition reflected the appropriate skills and expertise required to perform the work of Methyl Bromide Technical Options Committee, including expertise in the field of agricultural economy, technology transfer and regulatory processes of registration;
- (f) The criteria and procedure for selecting the experts, including ensuring a balance between experts from Article 5 and non-Article 5 Parties, pursuant to the qualification requirements as set forth in subparagraph (e) above;
- (g) Further guidance on the application of the criteria set forth in decision IX/6;
- (h) The modalities for the Methyl Bromide Technical Options Committee to submit annual work plans to the Meeting of the Parties;
- (i) The instances where the Methyl Bromide Technical Options Committee should seek the guidance of the Meeting of the Parties in conducting its work;
- (j) Modalities for the Methyl Bromide Technical Options Committee to provide the Meeting of the Parties with budget proposals for the conduct of the Committee's work through the Secretariat;

3. To establish to that end an ad hoc working group which shall meet for three days immediately prior to the twenty-fourth meeting of the Open-ended Working Group and shall comprise 12 representatives of Article 5 Parties and 12 representatives of non-Article 5 Parties;

4. To invite the co-chairs of the Methyl Bromide Technical Options Committee to participate in the meeting of the ad hoc working group;  
That the ad hoc working group should base its discussions on the Methyl Bromide Technical Options Committee-related elements and issues set forth in paragraph 2 above and shall report its findings and recommendations to the Open-ended Working Group at its twenty-fourth session;

5. To request the Open-ended Working Group at its twenty-fourth session to formulate recommendations for the consideration and approval of the Sixteenth Meeting of the Parties and to identify which elements, if any, could be used on an interim basis pending approval by the Sixteenth Meeting of the Parties;

6. That the Methyl Bromide Technical Options Committee should continue to assess the nominations as "recommended", "not recommended" or "unable to assess".

7. That the reports of the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee, to be published following those bodies' initial assessment of nominations submitted in 2004 and following the subsequent assessment of any additional information submitted by nominating Parties, should include:

- (a) If the Panel and Committee do not recommend any part of a nomination, a clear description of the nominating Party's request for an exemption and of the reasons why the Panel and Committee did not accept it, including references to the relevant studies, wherever available, used as the basis for such a decision;
- (b) If the Panel and Committee require additional information, a clear description of the information required.

*Decision XVI/2. Critical use exemptions for methyl bromide for 2005 and 2006*

*Cognizant* of its duty to assess critical uses of methyl bromide under Article 2H, paragraph 5, of the Montreal Protocol,

*Taking* into account the criteria and procedures for the assessment of critical uses of methyl bromide articulated in decision IX/6,

*Noting* with great appreciation the work done by the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee,

*Recognizing* that the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee review nominations for critical-use exemptions pursuant to paragraph 2 of decision IX/6 and that the Parties assess a critical methyl bromide use for the purposes of control measures in Article 2H of the Protocol,

*Noting* that decision XVI/4 should provide a solid basis for review of critical-use nominations in the future, and that in the absence of technical and economic justification for a recommendation, particular consideration should be given to the Party's nomination,

*Bearing* in mind, in particular, paragraphs 3 and 4 of the working procedures of the Methyl Bromide Technical Options Committee relating to the evaluation of nominations for critical uses of methyl bromide, as set out in annex I to the report of the Sixteenth Meeting of the Parties,

1. For the agreed supplemental critical-use categories for 2005, set forth in section IA to the annex to the present decision for each Party, to permit, subject to the conditions set forth in decision Ex.I/4, to the extent that those conditions are applicable, the supplementary levels of production and consumption for 2005 set forth in section IB to the annex to the present decision which are necessary to satisfy critical uses;
2. For the agreed critical-use categories for 2006, set forth in section IIA to the annex to the present decision for each Party, to permit, subject to the conditions set forth in decision Ex. I/4, to the extent that those conditions are applicable, the levels of production and consumption for 2006 set forth in section IIB to the annex to the present decision which are necessary to satisfy critical uses, with the understanding that additional levels of production and consumption and categories of uses may be approved by the Meeting of the Parties to the Montreal Protocol in accordance with decision IX/6;
3. That Parties should endeavour to ensure that the quantities of methyl bromide recommended by the Technology and Economic Assessment Panel are allocated as listed in sections IA and IIA of the annex to the present decision;
4. That each Party which has an agreed critical use should ensure that the criteria in paragraph 1 of decision IX/6 are applied when licensing, permitting or authorizing critical use of methyl bromide and that such procedures take into account available stocks of banked or recycled methyl bromide. Each Party is requested to report on the implementation of the present paragraph to the Ozone Secretariat;
5. To approve in the interim, until the Extraordinary Meeting of the Parties referred to in paragraph 9 below is convened, subject to the conditions set forth in decision Ex. I/4, to the extent that those conditions are applicable, the portions of the 2006 critical-use nominations set forth in section III of the annex to the present decision;
6. To ask the Methyl Bromide Technical Options Committee to review:
  - (a) Those portions of the 2006 critical-use nominations set forth in section III of the annex to the present decision;
  - (b) The 2006 critical-use nominations that were identified as "unable to assess" in the October 2004 report of the Technology and Economic Assessment Panel,  
on the basis of all relevant information submitted by 24 January 2005, including any supplemental information submitted by the Parties, and information relating to what is suitable for the crops and circumstances of the nomination;
7. To request the Methyl Bromide Technical Options Committee to evaluate the nominations referred to in paragraph 6 of the present decision:
  - (a) In accordance with the procedures set out in annex I to the report of the Sixteenth Meeting of the Parties subject to modifications necessary to meet the timetable provided in paragraphs 6–9 of the present decision;
  - (b) To meet the nominating Party before it completes its deliberations, if so requested by the Party;
8. To request the Technology and Economic Assessment Panel to report its findings to the Parties in the form of an interim report by 30 April 2005, and in the form of a final report by 15 May 2005;
9. To review the report of the Technology and Economic Assessment Panel prepared pursuant to paragraphs 6–8 of the present decision at an extraordinary Meeting of the Parties held in conjunction with the twenty-fifth meeting



of the Open-Ended Working Group, in order to adopt a decision at the Meeting with respect to the portions of the 2006 critical-use nominations referred to in paragraph 6 of the present decision, with the understanding that it shall not give rise to any further financial implications;

10. That the procedure provided for in paragraphs 6–9 of the present decision is exceptional and applies only in 2005, unless the Parties decide otherwise;

## Annex Critical use exemptions

### Section IA: 2005 – agreed supplemental critical-use categories (metric tonnes)

Australia	Almonds (1.9)
Belgium	Mills (0.2), electronic equipment (0.1), woodworking premises (0.3), food premises (0.3), food storage dry structure (0.12), old buildings (1.15), empty silo (0.05), food processing premises (0.03), flour mill (9.515), artefacts and structures (0.59), churches, monuments and ships quarters (0.15), antique structures and furniture (0.319)
Canada	Strawberry runners (6.84)
France	Cucurbits (60), melon (7.5), seeds post harvest (0.135)
Germany	Artefacts (0.25), mills and processors (45)
Greece	Cut flowers (14), dried fruit (4.28), mills and processors (23)
Israel	Artefacts (0.65), cut flowers, protected (303), cut flowers, open fields (77), dates post harvest (3.444), flour mills – machinery and storages (2.14), furniture imported (1.422), fruit tree nurseries (50), potato (239), strawberry runners (35), strawberry fruit (196), melon (125.65), seed production (56)
Italy	Mills and processors (160), artefacts (5.225)
Japan	Chestnut (2.5), cucumber (48.9), ginger field (119.4), ginger protected (22.9), melon (99.6), watermelon (57.6), peppers hot (23.2), peppers green (89.9)
Netherlands	Strawberry runners (0.12)
New Zealand	Strawberry fruit (42), strawberry runners (8)
Poland	Strawberry runners (40), dry commodities (4.1)
Switzerland	Mills and processors (8.7)
United Kingdom	Mills and processors biscuits (2.525), spices (building) (3.0), spices and pappadam (0.035), woven baskets (0.77)
United States of America	Dried fruit and nuts (2.413), eggplant field (3.161), peppers field (9.482), tomato field (10.746), dry commodities structures (cocoa) (61.519), dry commodities – processed foods, herbs, spices, dried milk (83.344), ornamentals (154), smokehouse ham (67), strawberry fruit (219)

### Section IB: 2005 – permitted supplemental levels of production and consumption (metric tonnes)

Australia	1.9
Belgium*	12.824
Canada	6.84
France*	67.635
Germany*	45.25
Greece*	41.28
Israel	1074
Italy*	165.225
Japan	464
Netherlands*	0.12
New Zealand	40.5
Poland*	44.1
Switzerland	8.7
United Kingdom*	6.33

\* The supplementary production and consumption of the European Community shall not exceed 382.764 metric tonnes for the purposes of the agreed supplementary critical uses.

### Section IIA: 2006 agreed critical-use categories (metric tonnes)

Australia	Almonds (2.1), cut flowers (22.35), cut flowers bulbs protected (5.25), rice consumer packs (6.15), strawberry runners (30)
Belgium	Food premises (0.3)
Canada	Strawberry runners (8.666), flour mills (27.8), pasta manufacturing facilities (8.4)
France	Carrots (8), chestnut (2), cucurbits (60), forest nurseries (10), orchard and raspberry replant (25), orchard and raspberry nurseries (5), peppers (27.5), rice consumer packs (2), seeds post harvest (0.135), strawberry fruit (86), strawberry runners (40), cut flowers bulbs (52), eggplant (22), tomato (48.4), melon (6.0), mills and processors (35)
Israel	Artefacts and libraries (0.65), cut flower open field (67), flour mills machinery and

	storages (1.49), fruit tree nurseries (45), strawberry fruit (196), strawberry runners (35), dates post harvest (2.755), cut flowers protected (240), melon (99.4), potato (165), seed production (28)
Italy	Strawberry runners (120), strawberry fruit protected (320), tomato protected (697), eggplant protected (156), cut flowers bulbs protected (187), melon protected (131), pepper protected (130), artefacts (5.225)
Japan	Chestnuts (6.5), cucumber (87.6), ginger field (119.4), ginger protected (22.9), melon (171.6), watermelon (60.9), peppers green (98.4), peppers hot (13.9)
New Zealand	Strawberry fruit (34), strawberry runners (8)
Poland	Strawberry runners (40), dry commodities (3.56)
Spain	Peppers protected (155), strawberry fruit protected (499.29), strawberry runners (230), cut flowers protected (42), cut flowers protected and open field (15)
Switzerland	Mills and processors (7.0)
United Kingdom	Ornamental tree nurseries (6), raspberry nurseries (4.4), strawberry fruit (54.5)
United States of America	Cucurbits – field (747.839), dried fruit and nuts (80.649), forest nursery seedlings (157.694), nursery stock – fruit trees, raspberries, roses (64.528), strawberry runners (56.291), turfgrass (131.6), dry commodities cocoa beans (46.139), dry commodities/structures (56.253), eggplant field (81.253), mills and processors (394.843), peppers field (806.877), strawberry fruit field (1523.180), tomato field (2222.934), orchard replant (527.6)

### Section IIB: 2006 – permitted levels of production and consumption (metric tonnes)

Australia	65.85
Belgium*	0.3
Canada	44.866
France*	429.035
Israel	880.295
Italy*	1746.225
Japan	581.2
New Zealand	40.5
Poland*	43.56
Spain*	941.29
Switzerland	7
United Kingdom *	64.9
United States of America	6897.68

\* The production and consumption of the European Community shall not exceed 3,225.310 metric tonnes for the purposes of the agreed critical uses.

### Section III – 2006 Approved critical-use nominations under paragraph 5 (metric tonnes)

Party	2006 Approved critical-use nominations under paragraph 5 (metric tonnes)
Australia	Cut flowers – bulbs – protected (1.75); rice – consumer packs (6.15); strawberry runners (7.5)
Canada	Flour mills (6.974); Pasta manufacturing facilities (2.057);
France	Cut flowers, bulbs – protected and open field (8.25); eggplant (5.5); melon (4.0); mills and processors (5); tomato (12.1);
Israel	Cut flowers – protected (63); dates - postharvest (0.689); melon protected – in field (42.6); seed production (22)
Italy	Artefacts (0.275); cut flowers – bulbs – protected (63); eggplant – protected (44); melon – protected (4); peppers – protected (30); strawberry fruit – protected (80); tomato – protected (333)
Japan	Peppers – green (65.6); peppers – hot (9.3)
New Zealand	Strawberry fruit (8); strawberry runners (2)
Spain	Cut flowers – Cadiz/Sevilla – protected (11); cut flowers (Cataluna – carnation, protected and open field (3.6);
United Kingdom	Strawberry fruit (9.1)
United States of America	Dry commodities/structures (cocoa beans) (15.38); dry commodities/structures (processed foods, herbs and spices, and cheese processing facilities) (27.091); eggplant – field (20.933); mills and processors (111.139); orchard replant (300.394); peppers – field (694.497); strawberry fruit – field (397.597); tomato – field (627.552)

*Decision XVI/3. Duration of critical-use nominations of methyl bromide*

*Mindful* that decision Ex.I/4, under paragraph 9 (e), requested the Technology and Economic Assessment Panel to review critical-use nominations on an annual basis and to apply the criteria set forth in decision IX/6 and of other relevant criteria agreed by the Parties,

*Recognizing* that decision Ex.I/3, under paragraph 6, asked the Parties to take note of the proposal by the United States of America on multi-year exemptions, and to consider the elaboration of criteria and a methodology for authorizing multi-year exemptions,

1. To agree that the basis for extending the duration of critical-use nominations and exemptions of methyl bromide to periods greater than one year requires further attention;
2. To elaborate, as far as possible, at the Seventeenth Meeting of Parties a framework for spreading a critical-use exemption over more than one year and to agree that the following elements, among others, should be taken into account:
  - (a) Annual reporting on:
    - (i) Status of re-registration and review of methyl bromide;
    - (ii) Status of registration of alternatives and substitutes for methyl bromide;
    - (iii) Efforts to evaluate, commercialize and secure national regulatory approval of alternatives and substitutes;
  - (b) Assessment of requests to reconsider approved critical-use exemptions in the case of exceptional circumstances;
  - (c) Review of downward trends for different instances;
  - (d) Assessments of nominations in the light of the alternatives database referred to in paragraph 1 of decision Ex.I/4, and comparisons with management strategies;
  - (e) Applicability of existing decisions to methyl bromide critical-use exemptions longer than one year;
  - (f) Additional conditions applicable to critical-use exemptions longer than one year;
3. To consider the technical justifications for spreading a critical-use exemption over more than one year, taking into account, among others, the following instances:
  - (a) Where the use patterns of methyl bromide are not regular on an annual or seasonal basis;
  - (b) Where, for a specific use, no alternatives or emerging solutions are anticipated for several years;
  - (c) Where a plan of implementation of an alternative stretches over several years;
  - (d) Where management strategies include a complete time-bound phase-out for a nomination or sector or use;

*Decision XVI/4. Review of the working procedures and terms of reference of the Methyl Bromide Technical Options Committee*

*Reaffirming* that each Party should aim significantly and progressively to decrease its production and consumption of methyl bromide for critical uses with the intention of completely phasing out methyl bromide as soon as technically and economically feasible alternatives are available for critical uses in the circumstances of the nominations according to decision IX/6,

To adopt the elements related to procedures and terms of reference of the Methyl Bromide Technical Options Committee related to the evaluation of nominations for critical uses of methyl bromide as set out in annex I to the report of the Sixteenth Meeting of the Parties.

**Annex I (Report of MOP16)**

**A. Working procedures of the Methyl Bromide Technical Options Committee relating to the evaluation of nominations for critical uses of methyl bromide**

1. The schedule for the MBTOC assessment of critical-use exemptions will be revised as set out in the following table:

<b>Actions</b>	<b>Indicative completion date</b>
Parties submit their nominations for critical-use exemptions to the Secretariat	24 January
The nominations are forwarded to MBTOC co-chairs for distribution to the subgroups of appointed members	7 February
Nominations in full are assessed by the subgroups of appointed members. The initial findings of the subgroups, and any requests for additional information are forwarded to the MBTOC co-chairs for clearance	28 February
MBTOC co-chairs forward the cleared advice on initial findings and requests for additional information on to the nominating Party concerned and consult with the Party on the possible presumption therein	7 March
Nominating Party develops and submits its response to the MBTOC co-chairs	28 March
MBTOC meets as usual to assess nominations, including any additional information provided by the nominating Party prior to the MBTOC meeting under action 5 and any additional information provided by nominating Party through pre-arranged teleconference, or through meetings with national experts, in accordance with paragraph 3.4 of the terms of reference of TEAP, advises the nominating Party of any outstanding information regarding the information requested under action 3 for those critical-use nominations where it was unable to assess the nomination, and provides its proposed recommendations to TEAP	mid April
TEAP meets as usual in May, among other things, to assess the MBTOC report on critical-use nominations and submits the finalized report on recommendations and findings to the Secretariat	early May
The Secretariat posts the finalized report on its web site and circulates it to the Parties	mid-May
Nominating Party has the opportunity to consult with MBTOC on a bilateral basis in conjunction with the Open-ended Working Group meetings	early July
The nominating Party submits further clarification for the critical-use nomination in the "unable to assess" category or if requested to do so by the Open-ended Working Group, and provides additional information should it wish to appeal against a critical-use nomination recommendation by MBTOC	early August
MBTOC meets to reassess only those critical-use nominations in the "unable to assess" category, those where additional information has been submitted by the nominating Party and any critical-use nominations for which additional information has been requested by the Open-ended Working Group	late August
MBTOC final report is made available to Parties through TEAP	early October

2. Standard presumptions that underlie MBTOC recommendations of critical-use nominations need to be transparent and technically and economically justified, and should be clearly stated in its reports, and submitted to the Parties for approval at the Seventeenth Meeting of the Parties, and thereafter on an annual basis. Reaffirming that the individual circumstances are the primary point of departure for an assessment of a nomination, MBTOC should not apply standard presumptions where the Party has demonstrated that the individual circumstances of the nomination indicate otherwise.

3. In the event that a nomination has been recommended for rejection or reduction as assessed under action 6 above, MBTOC will give the nominating Party the opportunity to send detailed corroborating information taking into account the circumstances of the nomination. On the basis of this additional information (and possible consultations with the nominating Party by pre-arranged teleconference) MBTOC will reassess this nomination.

4. Although the burden of proof remains with the Party to justify a request for a critical-use exemption, MBTOC will provide in its report a clear explanation of its operation with respect to the process of making determinations for its recommendations, and clearly state the approach, assumptions and reasoning used in the evaluation of the critical-use nominations. When cuts or denials are proposed, the description should include citations and also indicate where alternatives are technically and economically feasible in circumstances similar to those in the nomination, as described in decision Ex.1/5, paragraph 8.

5. Communications between the nominating Party and MBTOC will be based on the principles of fairness and due process, on the basis of corroborating written documentation, and will be properly reflected in the MBTOC and TEAP reports.

6. The role of the Secretariat should be central in regard to assistance in organizational, administrative and technical aspects of the process whereby the efficiency, operations and communications could be enhanced.

7. MBTOC is requested to develop and keep up to date an expanded matrix describing the conditions under which alternatives are technically and economically feasible. The matrix should include detailed references, such as citations of trial reports demonstrating this feasibility or case studies of commercial operation. Before application, the Parties should approve the matrix and any subsequent changes.

8. MBTOC, when holding its meeting, can consult the nominating Party through pre-arranged teleconference or through face-to-face discussions with national experts, in accordance with paragraph 3.4 of the terms of reference for the Technology and Economic Assessment Panel, in order to facilitate a transparent exchange of information and understanding between MBTOC and the critical-use exemption applicant.

9. It is recalled that paragraphs 9 (f) and 9 (g) of decision Ex.I/4 request TEAP to recommend an accounting framework and to provide a format for a critical-use exemption report.

10. Despite the opportunities given to the nominating Party to supply any additional information required in support of its nomination, MBTOC should categorize the nomination as “unable to assess” if there is insufficient information to make an assessment, and clearly explain what information was missing.

#### **B. Membership of the Methyl Bromide Technical Options Committee**

11. TEAP and MBTOC are urged to apply strictly the current terms of reference of TEAP approved by the Eighth Meeting of the Parties in its decision VIII/9, in particular:

(a) To draw up guidelines for nominating experts by the Parties to be published by the Secretariat;

(b) To publish and keep current a matrix showing existing and needed skills for the MBTOC members. In so doing, MBTOC may like to use all available UNEP publications, the Secretariat web page, the regional ozone officers' network meetings and any other means considered appropriate. Parties, and in particular Parties operating under Article 5, are urged to consider nominating experts to MBTOC in those areas where missing skills and expertise have been identified by MBTOC;

(c) To ensure that MBTOC has about 20–35 members as set out in the terms of reference of TEAP, while also ensuring coverage of the required expertise;

(d) In order to meet the overall goal of achieving a representation in the Committee of about 50 per cent for Parties operating under Article 5, where candidates from Parties operating under Article 5 and those not so operating have equivalent expertise and experience, the MBTOC co-chairs shall give preference to the appointment of those experts from Parties operating under Article 5. The MBTOC co-chairs, supported by the Ozone Secretariat, should aim to achieve a balanced membership within two years, or as soon as possible thereafter. The Parties shall monitor progress in pursuing a balanced membership by reviewing the advice provided in the work plan on the composition of MBTOC;

(e) Skills and expertise in the following fields, among others deemed necessary by MBTOC, should be represented:

- (vii) Chemical and non-chemical alternatives to methyl bromide;
- (viii) Alternative methods of pest control that have replaced or could replace significant uses of methyl bromide;
- (ix) Technology transfer or extension activities related to alternatives;
- (x) Regulatory processes of registration;
- (xi) Agricultural economics;
- (xii) Weed control;
- (xiii) Resistance management;
- (xiv) Recapture and recycling of methyl bromide.

12. MBTOC should ensure a membership with substantive practical and first-hand experience. With respect to (i), (ii), (iii) and (vi) above, preference should be given to candidates who have experience in the implementation of more than one alternative.

13. With a view to supporting a timely review process and ensuring additional expertise that may be required for a particular critical-use nomination, MBTOC may seek assistance from additional experts who, at the request of MBTOC, should provide written input and assist in the review of MBTOC documents. These consulting experts can be invited by the MBTOC co-chairs, on an exceptional basis, to be heard personally at a meeting of MBTOC. For reasons of transparency and accountability, the role and type of input of these consulting experts should be clearly set out.

14. Candidates should be willing to undertake an evaluation of a proportion of the nominations before arriving at the meeting in order to take advantage of all the local resources available (library, internet, reports); and to undertake any work after the meeting necessary to finalize the report.

15. An annual work plan will enhance the transparency of, and insight in, the operations of MBTOC. Such a plan should indicate, among other things:

- (a) Key events for a given year;
- (b) Envisaged meeting dates of MBTOC, including the stage in the nomination and evaluation process to which the respective meetings relate;
- (c) Tasks to be accomplished at each meeting, including appropriate delegation of such tasks;
- (d) Timing of interim and final reports;
- (e) Clear references to the timelines relating to nominations;
- (f) Information related to financial needs, while noting that financial considerations would still be reviewed solely in the context of the review of the Secretariat's budget;
- (g) Changes in the composition of MBTOC, pursuant to the criteria for selection;
- (h) Summary report of MBTOC activities over the previous year, including matters that MBTOC did not manage to complete, the reasons for this and plans to address these unfinished matters;
- (i) Matrix with existing and needed skills and expertise; and
- (j) Any new or revised standards or presumptions that MBTOC seeks to apply in its future assessment of critical-use nominations, for approval by the Meeting of the Parties.

16. The annual work plan should be drawn up by MBTOC (supported by the Ozone Secretariat) in consultation with TEAP, which shall submit it to the Meeting of the Parties each year.

**C. Further guidance on the criteria for the evaluation of nominations for critical uses of methyl bromide**

**1. On the availability of technically and economically feasible alternatives, and economic feasibility**

17. Pending further consideration by the Meeting of the Parties, MBTOC shall continue to define:

- (a) "Alternatives" as any practice or treatment that can be used in place of methyl bromide;
- (b) "Existing alternatives" as those alternatives in present or past use in some regions; and
- (c) "Potential alternatives" as those alternatives in the process of investigation or development.

18. Understanding of the concept of "availability" shall be primarily guided by the alternative's market presence in sufficient quantities and accessibility, taking into account, among other things, regulatory constraints.

19. To the factors already listed in annex I, part B, paragraph 4 of the report of the Extraordinary Meeting of the Parties, with regard to paragraphs 6 and 9 (c) of decision Ex.I/4, the following are added:

- (a) The difference in purchasing costs between methyl bromide and the alternatives per treated areas, mass, or volume, and related costs such as new equipment, labour costs and losses resulting from closing the fumigated object for an extended period of time;
- (b) Difference in yield per hectare, including its quality, and harvest time, between the alternative and methyl bromide;
- (c) Percentage change in net revenue if alternatives are used.

20. In line with paragraph 4 above, in any case in which a Party makes a nomination which relies on the economic criteria of decision IX/6, MBTOC should, in its report, explicitly state the central basis for the Party's economic argument and explicitly explain how it addressed that factor, and, in cases in which MBTOC recommends a cut; MBTOC should also provide an explanation of its economic feasibility.

21. As regards significant market disruption, it is recalled that paragraph 1 (a) (i) of decision IX/6 provides that a use of methyl bromide should qualify as "critical" only if the nominating Party determines that the specific use is critical because the lack of availability of methyl bromide for that use would result in a significant market disruption. Parties are invited to include in their nominations, information on their determination referred to in paragraph 1 (a) (i) of decision IX/6.

**2. On the duration of critical-use nomination of methyl bromide**

22. It is recalled that the Sixteenth Meeting of the Parties adopted decision XVI/3, related to the duration of critical-use nominations of methyl bromide.

### **3. On aggregation of nominations**

23. It is reaffirmed that applications shall be considered on a case-by-case basis. In that context, MBTOC shall continue its current approach as regards the level of aggregation or disaggregation.

### **4. On individual circumstances of nominations**

24. In the interest of fair and equal treatment, nominations should be assessed in the light of compliance with the criteria of decision IX/6 and other relevant decisions, irrespective of the size or number of tonnes in the nomination. MBTOC is invited to propose a streamlined method for assessing small nominations to the degree that the method is consistent with the principle stated above.

25. If a particular product is not registered or subject to national or local regulatory restrictions, or if it becomes de-registered, MBTOC should recommend a critical-use exemption, provided there are no other feasible alternatives according to decision IX/6 for the specific situation. MBTOC should request written advice from the nominating Party, which may include advice from the manufacturer of an alternative.

26. In cases where alternatives are currently in the registration process, MBTOC should note this fact. It is acknowledged that a Party does not always have the capability to influence the registration of alternatives. A nominating Party should inform MBTOC when registration occurs and MBTOC should take this kind of information into account when recommending critical-use exemptions, as is already requested by the Parties in decision IX/6, paragraph 1 (b) (iii).

### **5. On the handbook on critical use nominations for methyl bromide**

27. The handbook is a general reference for all those involved in the critical-use exemption process, in part owing to the convenience of using the handbook as a general reference volume for methyl bromide decisions, as well as the critical-use nomination procedure. Therefore, the handbook should be reframed to become a comprehensive "one-stop shop" that includes information on methyl bromide decisions, working procedures and terms of reference of MBTOC, the critical-use nomination process, agreed standard presumptions and other related topics. The text should be taken as far as possible, however, directly from decisions of the Meeting of the Parties or other language that has been approved by the Parties.

28. The onus remains on the nominating Party to provide sufficient information in order for MBTOC to be able to assess whether critical-use nominations comply fully with decision IX/6. The handbook should inform Parties which information requirements are needed.

29. TEAP and its MBTOC should be responsible for updating the handbook. TEAP and its MBTOC should not put any new proposals in the handbook which do not have a basis in a decision of the Meeting of the Parties. Factual updates of the handbook incorporating the specific language of the decisions of the Parties do not require prior approval from the Parties. Otherwise, updates require approval from the Parties.

### **6. On approach, assumptions and reasoning to be used in the evaluation**

30. Decision IX/6 is the basis for the assessment of critical-use exemptions by MBTOC.

31. While the burden of proof remains with the nominating Party to justify the request for a critical-use exemption, MBTOC, in its report, should indicate whether the nominating Party has provided the information in order for MBTOC to determine that the Party has met the applicable criteria set out in decision IX/6 and related decisions.

32. Exemptions must fully comply with decision IX/6 and other relevant decisions, and are intended to be limited to the levels needed for critical-use exemptions, temporary derogations from the phase-out of methyl bromide in that they are to apply only until there are technically and economically feasible alternatives that otherwise meet the criteria in decision IX/6. MBTOC should take a precise and transparent approach to the application of the criteria, having regard, especially, to paragraphs 4 and 20 above.

### **7. On similar circumstances**

33. When MBTOC makes differentiated recommendations on nominations that cover the same use, it should clearly explain why one country's nomination is being treated differently than the nominations of other countries or the nominations of the same country, based on more information and citations of feasible alternatives relevant to these nominations, thus eliminating unjustified inconsistencies in assessments and ensuring equal treatment of nominations.

## **8. On market penetration of alternatives**

34. When considering the market penetration of an alternative in a nominating Party, MBTOC should evaluate the critical-use nominations based on information provided by the Parties and other information, in accordance with the terms of reference of TEAP, and in the light of likely implementation time in the circumstances of the nomination, and provide recommendations. In evaluating, MBTOC should request written advice from the nominating Party, which may include further information from the manufacturer of an alternative.

35. In situations where MBTOC recommends a nomination on grounds that it is necessary to have a period for adoption of alternatives, the basis for calculating the time period must be explained fully in the TEAP report and take fully into account the information provided by the nominating Party, the supplier, the distributor or the manufacturer. Relevant factors for such a calculation include the number of enterprises that need to transition, e.g., the number of fumigation and pest control companies, estimated training time assuming full effort, opportunities for importing alternative equipment and expertise if not available locally, and costs involved.

36. A case-by-case approach by MBTOC for each specific nomination (on the basis of information provided according to paragraph 35 above) is necessary above a one-size-fits-all approach when considering penetration of alternatives and transition times.

## **9. On conflict of interest**

37. The members of MBTOC should be required to declare any interest that they may have on the basis of a declaration, to be agreed by the Parties, and subject to any conditions attached to it.

38. It is recognized that the topic of conflict of interest, including the format of the declaration referred to in paragraph 37 above, needs further deliberations, taking fully into account the experience gained in this regard, the issue of confidentiality and the existing code of conduct contained in paragraph 5 of the terms of reference of TEAP.

### *Decision XVI/5. Provision of financial assistance to the Methyl Bromide Technical Options Committee*

*Noting* the heavy workload faced by the Methyl Bromide Technical Options Committee in its role under its renewed working procedures for the assessment of nominations for critical-use exemptions,

*Acknowledging* that a significant proportion of the Committee's administrative burden in conducting this work falls to the co-chairs of the Committee,

*Acknowledging* the greater levels of detail and transparency that are requested by the Parties to be applied to the Methyl Bromide Technical Options Committee's reports on its assessment of those nominations,

*Noting* that the current workload of the Methyl Bromide Technical Options Committee in conducting its assessment of the present high numbers of critical-use nominations to the standards directed by the Parties represents an exceptional circumstance that will not continue indefinitely, and for which the associated administrative burden for the Committee could reasonably be expected to reduce in the near term,

1. To provide financial support to the positions of one co-chair from a Party operating under paragraph 1 of Article 5 and one co-chair from a Party not so operating of the Methyl Bromide Technical Options Committee to cover the costs of their travel and accommodation for attendance at those meetings related to the Committee's assessment of critical-use nominations;

2. Also to provide financial support to the Methyl Bromide Technical Options Committee's co-chairs, to facilitate expert assistance in the initial summarization of critical-use nominations to facilitate the Methyl Bromide Technical Options Committee's timely and more detailed assessment of the nominations' claims against the criteria of decision IX/6, and expert assistance with the preparation of the Methyl Bromide Technical Options Committee's reports on its assessment of the critical-use nominations, so as to ensure that such reports provide sufficient levels of transparency and detail to meet the requirements of the Parties;

3. That the financial support referred to in paragraph 2 of the present decision would not exceed the equivalent of 12 months full time salary for one P-3 level position, and would be allocated between the components identified in paragraph 2 at the discretion of the Technology and Economic Assessment Panel;



4. To authorize as a transitional measure to enable the Methyl Bromide Technical Options Committee to adapt to a new pattern of its meetings arising out of its renewed working procedures, the Secretariat to meet upon request the expenses, i.e., daily subsistence allowance and travel, for the attendance of members of the Methyl Bromide Technical Options Committee in its meetings on the assessment of the critical-use exemption nominations, which they are unable to defray during 2005, while taking into account the practice on the standards of accommodation for the travels of independent experts attending official meetings of the Protocol;
5. To provide the necessary technical and financial assistance to the co-chairs of the Methyl Bromide Technical Options Committee, funds permitting, with respect to:
  - (a) Their site visits where necessary for the verification of the basis for nominations of critical-use exemptions, and
  - (b) Strengthening the liaison function of the Secretariat with the members of the Methyl Bromide Technical Options Committee;
6. That the financial support referred to in paragraphs 1–5 of the present decision would be provided within the existing level of budgetary provisions drawn from the Trust Fund of the Montreal Protocol for the 2005 budget to meet the expenses required above;
7. That the temporary financial support referred to in paragraphs 1–5 of the present decision would initially be provided only for 2005, with any proposal for similar support to be provided in subsequent years requiring the separate consideration and agreement of the Parties;
8. To encourage Parties not operating under paragraph 1 of Article 5 of the Protocol to continue offering assistance to their members in the three Panels and their subsidiary bodies for their continued participation in the assessment activities under the Protocol;

#### *Decision XVI/6. Accounting framework*

*Noting* with appreciation the work undertaken by the Technology and Economic Assessment Panel, pursuant to decision Ex.I/4, paragraph 9 (f), in developing an accounting framework,

*Mindful* that after the end of 2005 each Party which has been granted a critical-use exemption is requested to submit information on the quantities of methyl bromide produced, imported and exported by Parties under the terms of the critical-use exemptions,

*Aware* that such information must be submitted with a Party's nomination using the accounting framework format,

1. To adopt the accounting framework, as set out in annex II to the report of the Sixteenth Meeting of the Parties;
2. To request the Technology and Economic Assessment Panel to include the accounting framework in the next version of the Handbook on Critical Use Nominations for Methyl Bromide;

#### *Decision XVII/9: Critical-use exemptions for methyl bromide for 2006 and 2007*

*Noting with appreciation* the work done by the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee,

*Noting with appreciation* that some Parties have made substantial reductions in the quantities of methyl bromide authorized, permitted or licensed for 2005 and have significantly reduced the quantities for 2006,

*Noting* that Parties submitting requests for methyl bromide for 2007 have supported their requests with a national management strategy,

1. For the agreed critical-use categories for 2006, set forth in table A of the annex to the present decision for each Party, to permit, subject to the conditions set forth in the present decision and decision Ex.I/4 to the extent that those conditions are applicable, the levels of production and consumption for 2006 set forth in table B of the annex to the present decision which are necessary to satisfy critical uses;
2. For the agreed critical-use categories for 2007, set forth in table C of the annex to the present decision for each Party, to permit, subject to the conditions set forth in the present decision and in decision Ex. I/4, the levels of production and consumption for 2007 set forth in table D of the annex to the present decision which are

necessary to satisfy critical uses, with the understanding that additional levels of production and consumption and categories of uses may be approved by the Meeting of the Parties to the Montreal Protocol in accordance with decision IX/6;

3. That a Party with a critical use exemption level in excess of permitted levels of production and consumption for critical uses is to make up any such differences between those levels by using quantities of methyl bromide from stocks that the Party has recognized to be available;

4. That Parties shall endeavour to license, permit, authorize or allocate quantities of critical-use methyl bromide as listed in tables A and C of the annex to the present decision;

5. That each Party which has an agreed critical use renews its commitment to ensure that the criteria in paragraph 1 of decision IX/6 are applied when licensing, permitting or authorizing critical use of methyl bromide and that such procedures take into account available stocks of banked or recycled methyl bromide. Each Party is requested to report on the implementation of the present paragraph to the Ozone Secretariat by 1 February for the years to which this decision applies;

6. That Parties licensing, permitting or authorizing methyl bromide that is used for 2007 critical uses shall request the use of emission minimization techniques such as virtually impermeable films, barrier film technologies, deep shank injection and/or other techniques that promote environmental protection, whenever technically and economically feasible;

7. To request Parties to endeavour to use stocks, where available, to meet any demand for methyl bromide for the purposes of research and development;

8. To request the Quarantine and Pre-shipment Task Force of the Technology and Economic Assessment Panel to evaluate whether soil fumigation with methyl bromide to control quarantine pests on living plant material can in practice control pests to applicable quarantine standards, to evaluate the long-term effectiveness of pest control several months after fumigation for this purpose and to provide a report in time for the twenty-sixth meeting of the Open-ended Working Group;

9. That each Party should ensure that its national management strategy for the phase-out of critical uses of methyl bromide addresses the aims specified in paragraph 3 of decision Ex.I/4;

10. To request the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee to report for 2005 and annually thereafter, for each agreed critical use category, the amount of methyl bromide nominated by a Party, the amount of the agreed critical use and either:

- (a) The amount licensed, permitted or authorized; or
- (b) The amount used;

## **Annex Critical-use exemptions for 2006 and 2007**

**Table A. 2006 agreed critical-use categories (metric tonnes)**

Belgium	Antique structures and furniture (0.199), Artefacts and structures (0.307), Asparagus (0.225), Berry fruit (0.621), Chicory (0.18), Churches, monuments and ships' quarters (0.059), Cucumber (0.545), Cut flowers (1.956), Electronic equipment (0.035), Empty silo (0.043), Endive (1.65), Flour mill (0.072), Flour mills (4.17), Food premises (0.03), Mills (0.2), Nursery (0.384), Old buildings (0.306), Old buildings (0.282), Pepper and eggplant (1.35), Strawberry runners (0.9), Tomato (protected) (4.5), Tree nursery (0.155), Woodworking premises (0.101)
Germany	Artefacts (0.1), mills and processors (19.35)
Greece	Dried fruit (3.081), Cucurbits (19.2), Cut flowers (6.0), Mills and processors (15.445), Rice and legumes (2.355), Tomatoes (73.6)
Ireland	Mills (0.888)
Italy	Mills and processors (65.0)
Japan	Chestnut (0.3), Cucumber (1.2), Melon (32.3), Peppers (green & hot) (13.5), Watermelon (38.0)
Latvia	Grains (2.502)
Malta	Cucumber (0.127), Eggplant (0.17), Strawberry (0.212), Tomatoes (0.594)
Netherlands	Strawberry runners (0.12)
Poland	Coffee, cocoa beans (2.160)
Portugal	Cut flowers (8.75)
Spain	Rice (42.065)

United Kingdom	Cereal processing plants (8.131), Cheese stores (1.248), Cut flowers (6.05), Dried commodities (rice, fruits and nuts) Whitworths (1.256), Herbs and spices (0.037), Mills (Nabim) (10.195), Mills and processors (biscuits) (1.787), Structures (herbs and spices) (1.872), Structures, processors and storage Whitworths (0.880)
United States of America	Dried beans (7.07)

**Table B: 2006 permitted levels of production and consumption (metric tonnes)**

Belgium*	18.270
Germany*	19.450
Greece*	119.681
Ireland*	0.888
Italy*	65.000
Japan	85.300
Latvia*	2.502
Malta*	1.103
Netherlands*	0.120
Poland*	2.160
Portugal*	8.750
Spain*	42.065
United Kingdom*	31.456

\* The production and consumption of the European Community shall not exceed 311.445 metric tonnes for the purposes of the agreed critical uses.

**Table C: 2007 agreed critical-use categories (metric tonnes)**

Australia	Rice (consumer packs) (5.13), Strawberry runners (35.75)
Canada	Flour mills (30.167), Strawberry runners PEI (7.995), Strawberry runners Quebec (1.826)
Japan	Chestnuts (6.5), Cucumbers (72.4), Ginger field (109.701), Ginger protected (14.471), Melon (182.2), Peppers green and hot (156.7), Watermelon (94.2)
United States of America	Cucurbits (592.891), Dry commodities/structures cocoa beans (64.082), Dried fruit and nuts (78.983), Dry commodities/structures (processed foods, herbs & spices, dried milk and cheese processing facilities) NPMA (82.771), Dry cure pork products (building and product) (18.998), Eggplant field (85.363), Forest nursery seedlings (122.032), Mills and processors (401.889), Nursery stock – fruit trees, raspberries, roses (28.275), Orchard replant (405.400), Ornamentals (137.835), Peppers field (1106.753), Strawberry fruit field (1476.019), Strawberry runners (4.483), Tomato field (2065.246), Turf grass (78.040)

**Table D: 2007 permitted levels of production and consumption (metric tonnes)**

Australia	40.88
Canada	39.988
Japan	636.172
United States of America	5,149.060

*Decision XVIII/13: Critical-use exemptions for methyl bromide for 2007 and 2008*

*Noting with appreciation* the work done by the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee,

*Noting with appreciation* that some Parties have made substantial reductions in the quantities of methyl bromide authorized, permitted or licensed for 2006 and have significantly reduced the quantities requested,

*Noting* that Parties submitting requests for methyl bromide for 2007 have supported their requests with a management strategy as required under decision Ex.I/4,

1. For the agreed critical-use categories for 2007, set forth in table A of the annex to the present decision for each Party, to permit, subject to the conditions set forth in the present decision and decision Ex.I/4 to the extent that those conditions are applicable, the levels of production and consumption for 2007 set forth in table B of the annex to the present decision which are necessary to satisfy critical uses, in addition to the amounts permitted in decision XVII/9;

2. For the agreed critical-use categories for 2008 set forth in table C of the annex to the present decision for each Party to permit, subject to the conditions set forth in the present decision and in decision Ex.I/4, to the extent that those conditions are applicable, the levels of production and consumption for 2008 set forth in table D of the annex to the present decision which are necessary to satisfy critical uses, with the understanding that additional

levels of production and consumption and categories of uses may be approved by the Meeting of the Parties to the Montreal Protocol in accordance with decision IX/6;

3. That when assessing supplemental requests for critical use exemptions for 2008 for a specific nomination, the Technology and Economic Assessment Panel should take into account the most current information, including any information on domestic implementation of related 2007 and 2008 critical uses, in accordance with paragraph 2 of decision IX/6;

4. That a Party with a critical use exemption level in excess of permitted levels of production and consumption for critical uses is to make up any such differences between those levels by using quantities of methyl bromide from stocks that the Party has recognized to be available;

5. That Parties shall endeavour to license, permit, authorize or allocate quantities of critical-use methyl bromide as listed in tables A and C of the annex to the present decision;

6. That each Party which has an agreed critical use renews its commitment to ensure that the criteria in paragraph 1 of decision IX/6 are applied when licensing, permitting or authorizing critical use of methyl bromide and, in particular, the criterion laid down in paragraph 1(b) (ii) of decision IX/6. Each Party is requested to report on the implementation of the present paragraph to the Ozone Secretariat by 1 February for the years to which this decision applies;

7. To request the Technology and Economic Assessment Panel to publish annually in its progress report beginning in 2007 and prior to each Open-ended Working Group meeting the stocks of methyl bromide held by each nominating Party as reported in its accounting framework report;

8. That Parties licensing, permitting or authorizing methyl bromide that is used for 2008 critical uses shall request the use of emission minimization techniques such as virtually impermeable films, barrier film technologies, deep shank injection and/or other techniques that promote environmental protection, whenever technically and economically feasible;

9. That each Party should continue to ensure that its national management strategy for the phase-out of critical uses of methyl bromide addresses the aims specified in paragraph 3 of decision Ex.I/4.

### *Annex to decision XVIII/13*

#### **Critical-use exemptions for 2007 and 2008**

**Table A. 2007 agreed critical-use categories (metric tonnes)**

Australia	Cut flowers – bulbs – protected (3.598), Rice (4.075)
Canada	Pasta (6.757), Strawberry runners (Ontario) (6.129)
France	Chestnuts (1.800), Mills (8.000), Seeds (0.096), Carrots (1.400), Cucumbers (12.500), Cut flowers and bulbs (9.600), Forest nurseries (1.500), Orchard & raspberry nurseries (2.000), Orchard replant (7.000), Pepper (6.000), Strawberry runners (28.000)
Greece	Dried fruit (0.450), Mills & processors (1.340)
Israel	Dates (2.200), flour mills (1.040), broomrape (250.000), cucumber (25.000), cut-flowers – bulbs – protected (220.185), cut-flowers – open field (74.540), fruit tree nurseries (7.500), melon – protected & field (105.000), potato (137.500), strawberry runners (28.000), strawberry fruit (93.000), tomato (22.750)
Italy	Artefacts (5.000), Mills and processors (25.000), Cut flowers – protected (30.000), Melon – protected (10.000), Pepper – protected (67.000), Strawberry runners (35.000), Tomatoes protected (80.000)
Netherlands	Strawberry runners (0.120)
New Zealand	Strawberry runners (6.234), Strawberry fruit (12.000)
Poland	Coffee & cocoa beans (1.420), Medicinal herbs and mushrooms (1.800), Strawberry runners (24.500)
Spain	Cut flowers (Andalucia & Catalonia) (43.490), Peppers (45.000), Strawberry fruit (0.0796 for research), Strawberry runners (230.000)
United Kingdom	Aircraft (0.165), Cereal processing plants (3.480), Cheese stores (1.248), 13 Mills (4.509), Mills – Food processing (Biscuits) (0.479), Structures (Herbs & spices) (0.908), Structures (Whitworth) (0.257)

**Table B: 2007 permitted levels of production and consumption (metric tonnes)**

Australia	7.673
Canada	12.886
France *	77.896
Greece *	1.790
Israel	966.715
Italy *	252.000

Netherlands *	0.120
New Zealand	18.234
Poland *	27.720
Spain *	318.5696
United Kingdom *	11.046

\* The production and consumption of the European Community shall not exceed 689.1416 metric tonnes for the purposes of the agreed critical uses.

**Table C: 2008 agreed critical-use categories (metric tonnes)**

Australia	Cut flowers – bulbs – protected (3.500), Rice (7.400 + 1.8*), Strawberry runners (35.750)
Canada	Mills (28.650); Strawberry runners (Prince Edward Island) (7.462)
Japan	Chestnuts (6.300), Cucumbers (51.450), Ginger – field (84.075), Ginger – protected (11.100), Melon (136.650), Pepper green & hot (121.725), Watermelon (32.475)
United States of America	Commodities (58.921), Cocoa beans (NPMA subset) (53.188), NPMA food processing structures (cocoa beans removed) (69.208), Mills and processors (348.237), Smokehouse ham (19.669), Cucurbits – field (486.757), Eggplant – field (66.018), Forest nursery (131.208), Nursery stock – fruit, nut, flower (51.102), Orchard replant (393.720), Ornamentals (138.538), Peppers – field (756.339), Strawberry – field (1,349.575), Strawberry runners (8.838), Tomatoes – field (1,406.484), Sweet potato slips (18.144)

\* All or part of the supplementary amount of 1.8 metric tonnes, if required, is conditional on the Technical and Economic Assessment Panel's recommendation in its 2007 progress report.

**Table D: 2008 permitted levels of production and consumption (metric tonnes)**

Australia	46.650 + 1.8*
Canada	36.112
Japan	443.775
United States of America	4,595.040

\* All or part of the supplementary amount of 1.8 metric tonnes, if required, is conditional on the Technical and Economic Assessment Panel's recommendation in its 2007 progress report.

*Decision XIX/9: Critical-use exemptions for methyl bromide for 2008 and 2009*

*Noting with appreciation* the work done by the Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee,

*Noting* that Parties submitting requests for methyl bromide have supported their requests with management strategies as requested under decision Ex.I/4,

1. To permit, for the agreed critical-use categories for 2008 set forth in table A of the annex to the present decision for each Party, subject to the conditions set forth in the present decision and decision Ex.I/4 to the extent that those conditions are applicable, the levels of production and consumption for 2008 set forth in table B of the annex to the present decision which are necessary to satisfy critical uses, in addition to the amounts permitted in decision XVIII/13;

2. To permit, for the agreed critical-use categories for 2009 set forth in table C of the annex to the present decision for each Party, subject to the conditions set forth in the present decision and in decision Ex.I/4 to the extent that those conditions are applicable, the levels of production and consumption for 2009 set forth in table D of the annex to the present decision which are necessary to satisfy critical uses, with the understanding that additional levels of production and consumption and categories of uses may be approved by the Meeting of the Parties in accordance with decision IX/6;

3. To request the Technology and Economic Assessment Panel to ensure that recent findings with regard to the adoption rate of alternatives are annually updated and reported to the Parties in its first report of each year and inform the work of the Panel;

4. That when assessing supplemental requests for critical use exemptions for 2009 for a specific nomination, the Technology and Economic Assessment Panel should take into account the most current information, including any information on domestic implementation of related 2008 and 2009 critical uses, in accordance with paragraph 2 of decision IX/6;

5. That a Party with a critical use exemption level in excess of permitted levels of production and consumption for critical uses is to make up any such differences between those levels by using quantities of methyl bromide from stocks that the Party has recognized to be available;

6. That Parties shall endeavour to license, permit, authorize or allocate quantities of critical-use methyl bromide as listed in tables A and C of the annex to the present decision;

7. That each Party which has an agreed critical use renews its commitment to ensure that the criteria in paragraph 1 of decision IX/6 are applied when licensing, permitting or authorizing critical use of methyl bromide and, in particular, the criterion laid down in paragraph 1 (b) (ii) of decision IX/6. Each Party is requested to report on the implementation of the present paragraph to the Ozone Secretariat by 1 February for the years to which this decision applies;

8. To request the Technology and Economic Assessment Panel to continue publishing annually in its progress report prior to each meeting of the Open-ended Working Group the stocks of methyl bromide held by each nominating Party as reported in that Party's accounting framework report;

9. To recognize the continued contribution of the Methyl Bromide Technical Options Committee's expertise and to agree that, in accordance with section 4.1 of the Technology and Economic Assessment Panel's terms of reference, the Committee should continue to develop its recommendations in a consensus process that includes full discussion among all available members of the Committee;

10. To note the importance of transparency in the critical-use exemption process and to request the Technology and Economic Assessment Panel to provide to the Open-ended Working Group at its next meeting a written explanation of its methodology for using its meta-analysis in its work and to disclose to the Parties in a written explanation any significant changes or deviations it intends to make to that methodology before it undertakes any such change or deviation;

11. That Parties licensing, permitting or authorizing methyl bromide for critical uses shall request the use of emission minimization techniques such as virtually impermeable films, barrier film technologies, deep shank injection and/or other techniques that promote environmental protection, whenever technically and economically feasible;

12. That each Party should continue to ensure that its national management strategy for the phase-out of critical uses of methyl bromide addresses the aims specified in paragraph 3 of decision Ex.II/4;

#### Annex to decision XIX/9. Critical-use exemptions for 2008 and 2009

**Table A. 2008 agreed critical-use categories (metric tonnes)**

Australia	Rice (1.80)*
Canada	Pasta (6.067)
Israel	Dates (1.800), Flour mills (0.312), Broomrape (250.000), Cucumber – protected (18.750), Cut flowers – bulbs – protected (114.450), Cut-flowers – open field (44.750), Melon – protected and field (87.500), Potato (93.750), Sweet potatoes (111.500), Strawberry runners (Sharon and Gaza) (31.900), Strawberry fruit – protected (Sharon and Gaza) (105.960)
	Coffee and cocoa beans (0.500), Medicinal herbs and mushrooms (0.500), Strawberry runners (11.995)
Spain	Cut flowers (Andalucia and Catalonia) (17.000), Strawberry runners (215.000), Strawberry and pepper – research (0.151)

\* This amount was first approved in decision XVIII/13, conditional on the Technology and Economic Assessment Panel's 2007 progress report.

**Table B: 2008 permitted levels of production and consumption (metric tonnes)**

Australia	1.80**
Canada	6.067
Israel	860.672
Poland*	12.995
Spain*	232.151

\* The production and consumption of the European Community shall not exceed 245.146 metric tonnes for the purposes of the agreed critical uses.

\*\* This amount was first approved in decision XVIII/13, conditional on the Technology and Economic Assessment Panel's 2007 progress report.

**Table C: 2009 agreed critical-use categories (metric tonnes)**

Australia	Strawberry runners (29.790), Rice (7.820)
Canada	Mills (26.913), Strawberry runners (Prince Edward Island) (7.462)
Japan	Chestnuts (5.800), Cucumbers (34.300), Ginger – field (63.056), Ginger – protected (8.325), Melons (91.100), Peppers green and hot (81.149), Watermelon (21.650)
United States of America	Commodities (45.623), NPMA food processing structures (cocoa beans removed) (54.606), Mills and processors (291.418), Dried cured pork (18.998), Cucurbits (407.091), Eggplant – field (48.691), Forest nursery seedlings (122.060), Nursery stock – fruit, nut, flower (25.326), Orchard replant (292.756), Ornamentals (107.136), Peppers – field (548.984), Strawberries – field (1,269.321), Strawberry runners (7.944), Tomatoes – field (1,003.876), Sweet potato slips (18.144)

**Table D: 2009 permitted levels of production and consumption (metric tonnes)**

Australia	37.610
Canada	34.375
Japan	305.380
United States of America	3,961.974*

\* Minus available stocks