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Persistent Organic Pollutants Review Committee
First meeting
Geneva, 7–11 November 2005**

**Report of the Persistent Organic Pollutants Review Committee
on the work of its first meeting**

Introduction

1. At its first meeting, held in Punta del Este, Uruguay, from 2 to 6 May 2005, the Conference of the Parties of the Stockholm Convention on Persistent Organic Pollutants adopted decision SC-1/7, by which it established, pursuant to paragraph 6 of Article 19 of the Convention, a subsidiary body, to be called the Persistent Organic Pollutants Review Committee, for the purposes of performing the functions assigned to that Committee by the Convention.
2. Following adoption of that decision, and in accordance with the rules of procedure for the Conference of the Parties and the terms of reference of the Committee, as set out in the annexes to decisions SC-1/1 and SC-1/7 respectively, the Conference of the Parties agreed that Mr. Reiner Arndt (Germany) would serve as Chair of the Committee.
3. The first meeting of the Persistent Organic Pollutants Review Committee was held at the Geneva International Conference Centre, Geneva, from 7 to 11 November 2005.

I. Opening of the meeting

4. The Chair declared the meeting open at 10 a.m. on Monday, 7 November 2005.
5. Mr. John Buccini, acting Executive Secretary of the Convention, gave a brief opening statement in which he outlined the background to the Convention.

II. Organizational matters

A. Election of a Vice-Chair

6. In accordance with the rules of procedure for the Conference of the Parties and the terms of reference of the Committee, the Committee agreed that Ms. Jaqueline Alvarez (Uruguay) would serve as its Vice-Chair. It was agreed that Ms. Alvarez would also serve as rapporteur.

B. Adoption of the agenda

7. The Committee adopted the agenda set out below, on the basis of the provisional agenda which had been circulated as document UNEP/POPS/POPRC.1/1:

1. Opening of the meeting.
2. Organizational matters:
 - (a) Election of a vice-chair;
 - (b) Adoption of the agenda;
 - (c) Organization of work.
3. Review of the role and mandate of the Persistent Organic Pollutants Review Committee.
4. Operational procedures.
5. Consideration of chemicals proposed for inclusion in Annexes A, B or C to the Convention:
 - (a) Pentabromodiphenyl ether;
 - (b) Chlordecone;
 - (c) Hexabromobiphenyl;
 - (d) Lindane;
 - (e) Perfluorooctane sulfonate.
6. Other matters.
7. Adoption of the report.
8. Closure of the meeting.

C. Organization of work

8. The Chair drew attention to the objectives and possible outcomes of the meeting, as set out in the scenario note for the meeting (UNEP/POPS/POPRC.1/INF/1) and to the revised tentative schedule for the week, contained in document UNEP/POPS/POPRC.1/INF/2/Rev.1. He stressed that the primary objective of the meeting was to ensure that the Committee undertook the work assigned to it by the Convention: namely, for each of the chemicals proposed for listing in Annexes A, B or C to the Convention, to examine the proposal, apply the screening criteria specified in Annex D, complete an evaluation as to whether the chemical met those criteria and develop a plan for completing further work on the chemical. The secondary objective of the meeting, as mandated by the Conference of the Parties at its first meeting, was to draw up criteria, for approval by the Conference, for the selection of experts from the roster and to establish confidentiality arrangements.

9. The Committee decided to conduct its work in plenary and to establish such contact groups and drafting groups as necessary. Contact group meetings would be open to observers, whereas drafting group meetings would be open only to members of the Committee.

D. Attendance

10. At its first meeting, by its decision SC-1/7, the Conference of the Parties had decided that the Committee should comprise 31 members, who would be government-designated experts in chemical assessment or management from the Parties, appointed by the Conference on the basis of equitable geographical distribution, taking into account gender and the need for a balance between different types of expertise.

11. Accordingly, the meeting was attended by the following 31 experts: Ms. Anahit Aleksandryan (Armenia), Mr. Ian Rae (Australia), Ms. Adriana de Araújo Maximiano (Brazil), Mr. Désiré Ouedraogo (Burkina Faso), Mr. Robert Chenier (Canada), Mr. Abderaman Mahamet Abderaman (Chad), Mr. Jianxin Hu (China), Mr. Kouamé Georges Kouadio (Côte d'Ivoire), Mr. Ivan Holoubek (Czech Republic), Mr. Alfredo Cueva (Ecuador), Mr. Mohammed Ali Mohammed (Ethiopia), Ms. Razia Zahina Zariff Mohammed (Fiji), Mr. Reiner Arndt (Germany), Mr. Masaru Kitano (Japan), Mr. Ziad Mahmoud Abu Kaddourah (Jordan), Mr. Mohammad Aslam Yadallee (Mauritius),

Mr. Mario Yarto (Mexico), Ms. Farah Bouqartacha (Morocco), Ms. Janneche Utne Skåre (Norway), Mr. Dario C. Sabularse (Philippines), Ms. Hala Sultan Saif Al-Easa (Qatar), Mr. Thomas Brima Rick Yormah (Sierra Leone), Ms. Evelin Fabjan (Slovenia), Mr. Henk Bouwman (South Africa), Mr. José V. Tarazona (Spain), Mr. Bo Wahlström (Sweden), Mr. Jarupong Boon-Long (Thailand), Mr. Wayne Rajkumar (Trinidad and Tobago), Ms. Leena Ylä-Mononen (designated by the United Kingdom of Great Britain and Northern Ireland), Ms. Jacqueline Alvarez (Uruguay) and Mr. Ali El-Shekeil (Yemen).

12. In addition, the meeting was attended by observers from the following countries: Australia, Austria, Belarus, Bulgaria, Canada, China, Dominican Republic, Finland, France, Germany, Japan, Jordan, Libyan Arab Jamahiriya, Mexico, Morocco, Nigeria, Norway, Poland, Qatar, Russian Federation, Spain, Switzerland and United States of America.

13. The following United Nations bodies and specialized agencies were represented: United Nations Economic Commission for Europe (UNECE), United Nations Institute for Training and Research (UNITAR) and the World Health Organization (WHO).

14. The following non-governmental organizations were represented: Alaska Community Action on Toxics, American Chemistry Council, Association for Community Development, Commonweal, CropLife International, Environmental Health Fund, Euro Chlor, Indigenous Environmental Network, International Council of Chemical Associations, International Pops Elimination Network, National Toxics Network Inc., Pesticide Action Network Philippines, World Chlorine Council and World Wide Fund for Nature International.

15. A complete list of participants is set out in document UNEP/POPS/POPRC.1/INF/14/Rev.1.

III. Role and mandate of the Persistent Organic Pollutants Review Committee

16. The Chair gave a presentation on the role and mandate of the Committee, drawing attention to the two flow charts set out in document UNEP/POPS/POPRC.1/INF/3, one of which reflected the procedure to be employed when a proposal was accepted without being set aside at any stage, and the other which illustrated the full procedure, including the options available when the Committee set aside a proposal.

17. In response to a question by one expert regarding the sequencing of the full procedure, the Chair invited the Secretariat, in consultation with the expert in question, to study the issue and, if necessary, correct the flow chart. The revised flow chart is available in document UNEP/POPS/POPRC.1/INF/3.Rev.1. Following the consultation, the Committee noted its understanding of paragraph 8 of Article 8 of the Convention that the risk management evaluation required by that paragraph was to be prepared in accordance with the procedures set out in paragraph 7 (a) of Article 8. Accordingly, the Committee would, through the Secretariat, invite all Parties and observers to provide information relating to the considerations specified in Annex F to the Convention prior to preparing such an evaluation. The Committee decided to request the Conference of the Parties to confirm that understanding at its next meeting, if possible in an interpretative guidance document.

IV. Operational procedures

A. Review of the screening criteria specified in Annex D

18. According to paragraph 1 of Annex D to the Convention, a Party submitting a proposal to list a chemical in Annexes A, B or C has to identify the chemical in the manner described in subparagraph (a) of that paragraph and provide the information on the chemical, and its transformation products where relevant, relating to the screening criteria set out in subparagraphs (b)–(e), relating to persistence, bioaccumulation, potential for long-range environmental transport and adverse effects.

19. Presentations were made by three experts on the criteria of persistence, bioaccumulation and potential for long-range environmental transport.

20. In his presentation, Mr. Bouwman (South Africa) discussed the issue of persistence, focusing in particular on the perspective of a developing country. Following the presentation, one expert pointed out that any study on persistence would have to take into account regional variations in environmental conditions, which would affect persistence-related data. Another pointed out that degradation products

also needed to be identified, in order to assess the persistence correctly. A third noted the complexity of the criteria and suggested that the discussions would be useful for creating a casebook for use at future meetings.

21. Mr. Kitano (Japan) gave a presentation outlining various studies on bioaccumulation, placing particular emphasis on the experience obtained in Japan, and then answered a number of related questions raised by experts.

22. Ms. Skåre (Norway) presented the Committee with information on the potential for long-range environmental transport. In response to a question by an expert, she affirmed that measurement of a chemical in air at remote locations, among other things, was a good indicator for that criterion.

23. The Chair said that, given the complexity of evaluating the adverse effects of chemicals, discussions on that particular criterion would take place during consideration of the specific chemicals under agenda item 5.

B. Presentation on how the chemicals listed in Annexes A, B and C met the screening criteria specified in Annex D

24. The representative of the Secretariat gave a presentation on the extent to which the 12 chemicals listed in Annexes A, B and C to the Convention met the screening criteria specified in Annex D.

25. The Committee recalled that the word “flexible” in Article 8, paragraph 3, of the Convention had been discussed at length by the Criteria Expert Group and was linked to the extent to which the different criteria were fulfilled. In other words, if, for a given chemical, one criterion was not fully met while all the others were fulfilled, the weight of evidence would be deemed sufficient to justify qualification of the chemical as a persistent organic pollutant.

26. In addition, the Chair pointed out that chemicals which fulfilled all the criteria in Annex D might be given priority over those that met only some of the criteria, depending on the workload of the Committee.

C. Risk management options

27. The representative of the Secretariat gave a presentation on risk management options under the Stockholm Convention, noting that the Committee was at the beginning of the process for proposing chemicals for inclusion in the Convention and drawing attention to the provisions of the Convention that dealt with risk management.

D. Confidentiality of data

28. The representative of the Secretariat introduced the background documentation on the item, listed in annex VII to the present report. Recalling that paragraph 19 of the terms of reference of the Committee required the Committee to establish confidentiality arrangements as a matter of priority, she noted that, according to paragraph 5 of Article 9 of the Convention, information on health and safety of humans and the environment could not be regarded as confidential, and that Parties that exchanged information under the Convention should protect confidential information as mutually agreed. Some of the information requirements under the Convention – in particular under Annex E for the purposes of compiling risk profiles – raised the issue of the need to protect confidentiality of certain information.

29. The Chair noted that any arrangements made by the Committee for the identification and handling of confidential information and data would be provisional, until they were submitted to the Conference of the Parties for legal screening and endorsement.

30. In the ensuing discussion, during which experts described their experiences in handling confidential information at the national level, the need for transparency was emphasized and concerns were expressed as to whether any information should be deemed confidential. Some experts noted that they were unable to engage fully in the discussion or comment on the draft decision because of their lack of expertise or specific knowledge relating to confidentiality, especially in the context of international agreements or conventions. It was also noted that some experts who worked for their Governments might prefer not to receive confidential information, so as to avoid conflicts of interest.

31. The Committee requested the Secretariat to prepare a draft decision on provisional arrangements for the identification and handling of confidential information and data, taking into account the issues raised during consideration of the item.

32. One expert expressed concern about the exemption to confidentiality established by paragraph 2 (c) (i) of the draft decision, noting that Parties should have an opportunity to submit information which they regarded as confidential but which would be useful to the Committee in assessing proposals. Accordingly, he suggested that, in such cases, submitting Parties should be able to negotiate with the Chair and Vice-Chair of the Committee about the application of the confidentiality rule.

33. Following consideration of the draft prepared by the Secretariat, the Committee adopted decision POPRC-1/1 on provisional confidentiality arrangements, contained in annex I to the present report.

34. The decision was adopted on the understanding, first, that experts should be able to elect not to be sent confidential information; second, that confidential information submitted to the Secretariat would, where possible, be redrafted in such a way as to render it not confidential; and, third, that experts could specify in which form of mail they wished information to be sent to them. In addition, Parties should be encouraged not to submit confidential information.

35. The Committee agreed to establish an intersessional working group to discuss the matter of confidentiality further. The composition of that group is contained in annex VI to the present report.

E. Criteria for the selection of experts from the roster

36. The representative of the Secretariat introduced the background documentation on the item, listed in annex VII to the present report, noting that paragraph 10 of the terms of reference of the Committee provided for the establishment of a roster of experts who were not members of the Committee that the Committee could invite to support it in its work. Following a discussion, the Committee invited the Secretariat to prepare a document outlining the criteria to be applied for the selection of experts from the roster and the possible process for applying those criteria.

37. Following consideration of the draft prepared by the Secretariat, the Committee adopted decision POPRC-1/2 on invited experts, contained in annex I to the present report.

F. Verification that proposals contain Annex D information

38. The representative of the Secretariat gave a presentation on the process used by the Secretariat, as described in document UNEP/POPS/POPRC.1/INF/4, to verify whether proposals for listing chemicals in Annexes A, B and C to the Convention contained the information specified in Annex D.

G. Workplans

39. The representative of the Secretariat gave a presentation on the possible elements of workplans for chemicals being considered for inclusion in the Convention, as described in document UNEP/POPS/POPRC.1/INF/11. She noted that the workplans would be developed for the preparation of the draft risk profiles for those chemicals under examination and would be submitted to the Conference of the Parties at its next meeting.

40. The representative of the Secretariat presented a draft standard workplan for the preparation of a risk profile, which would be applicable to all the chemicals under discussion. The Committee agreed on the tasks and dates contained in the standard workplan. The Secretariat was requested to provide further definitions of the persons or groups responsible for the various tasks under the plan. The Committee encouraged countries to also submit draft risk profiles or evaluations in order to facilitate the work of the Committee in accordance with paragraph 28 of the terms of reference.

41. In response to a question by an expert, the Secretariat clarified that, pursuant to Article 8, paragraph 4 (a), of the Convention, only Parties and observers as defined in Article 19, paragraph 8, were able to submit information to the Committee. Thus, private persons or groups would need to submit information via an observer or a Party to the Convention for the Committee to consider that information when drafting the risk profile. Following a discussion, the Committee invited the Secretariat to prepare a revised draft standard workplan.

42. Following consideration of the revised draft prepared by the Secretariat, the Committee adopted the standard workplan for preparation of a draft risk profile, contained in annex II to the present report. The Committee agreed that the workplan would apply to the work of all intersessional working groups on chemicals.

H. Format for submission of information specified in Annex E

43. The representative of the Secretariat introduced the background documentation on the item, listed in annex VII to the present report. She explained that, to facilitate the submission of information specified in Annex E, pursuant to paragraph 4 (a) of Article 8 of the Convention, and the task of the Committee to prepare a draft risk profile as provided in paragraph 6 of that article, a draft standard format for the submission of such information had been developed by the Secretariat, in consultation with the Chair of the Committee, and had been reproduced in the annex to the note by the Secretariat contained in document UNEP/POPS/POPRC.1/4. That format had been designed to request submission of the types of information referred to in paragraphs (a)–(g) of Annex E. The Chair affirmed that such a format would have recommendatory status only and that information could also be submitted in other formats, but that the format proposed would best facilitate the work of the Committee. One member suggested that such a format should be available electronically, as was the reporting format used under the Stockholm Convention.

44. Following a discussion on the draft standard format contained in the note and on the possible format of a guidance letter to be sent to Parties requesting additional relevant information for the preparation of the draft risk profile by the Committee, the Committee agreed to set up an open-ended contact group to discuss the matter further, chaired by Mr. Jarupong Boon-Long (Thailand) and Mr. Cueva (Ecuador). The group was also entrusted with developing an outline for a risk profile.

45. Mr. Cueva introduced a draft proposal prepared by the contact group on the format for submitting the information specified in Annex E of the Convention pursuant to Article 8 and the elements of a cover letter requesting such information. Following a discussion of the draft proposal, the Committee took note of the contact group's work.

46. Ms. Ylä-Mononen (expert designated by the United Kingdom of Great Britain and Northern Ireland) introduced a draft proposal for a risk profile outline, which reflected the format set out in the draft proposal of the contact group on the submission of information specified in Annex E. She noted that references for any data cited would need to be clearly identified. Following a discussion, in which several amendments were made to the draft, the Committee agreed to use the document as guidance in the development of a risk profile outline. In addition, the Committee took note of a proposal on the synthesis of risk characterization prepared by some experts, to be used as the starting point for the further discussion of the issue. A copy of the risk profile outline and the proposal on synthesis of risk characterization are set out in annexes IV and V to the present report, respectively.

47. The Chair said that, if any of the intersessional working groups established by the Committee were dissatisfied with any element of the risk profile outline, the chair of that group would need to communicate that dissatisfaction to the chairs of the other groups and via the Secretariat to the Chair and Vice-Chair of the Committee, with a view to agreeing to an amendment or interpretation of the outline.

V. Consideration of chemicals proposed for inclusion in Annexes A, B or C to the Convention

48. In a general discussion on the item, it was noted that, when making proposals to include chemicals in Annexes A, B or C to the Convention, Parties should provide all relevant information and references. It was also noted that the Committee, when evaluating proposals, would primarily use internationally peer-reviewed literature; any other information that was provided would have to be peer reviewed by the Committee itself.

A. Pentabromodiphenyl ether

49. The representative of the Norwegian Government introduced the proposal for listing pentabromodiphenyl ether in Annex A to the Convention, and the documentation on the item, listed in annex VII to the present report. He noted that the chemical being proposed was a technical mixture which also included tetrabromodiphenyl and hexabromodiphenyl but was named pentabromodiphenyl. He also explained that, while several congeners were present in the technical mixture, about 75 per cent of its content comprised 2,2',4,4'-tetrabromodiphenyl ether (BDE-47) and 2,2',4,4',5-pentabromodiphenyl ether (BDE-99). Not all the polybrominated biphenyls were being proposed, as those with a higher number of bromine atoms in the molecule had different properties and the data available on those were less extensive.

50. Following the discussion, the Committee agreed to set up a drafting group to prepare a document detailing whether the chemical fulfilled each of the screening criteria, including references for the data cited. That document would inform the Committee's discussions as to whether pentabromodiphenyl ether met the screening criteria in Annex D. The Committee invited Mr. Abu Kaddourah (Jordan) and Mr. Yarto (Mexico) to chair the group.

51. The drafting group concluded that pentabromodiphenyl ether met the screening criteria listed in Annex D of the Convention and submitted a draft decision for consideration by the Committee.

52. The Committee adopted decision POPRC-1/3 on pentabromodiphenyl ether, contained in annex I to the present report.

53. The Committee agreed to keep under review the issue of the exact identification of the substance.

B. Chlordecone

54. Ms. Ylä-Mononen introduced the proposal from the European Union and its member States that are Party to the Stockholm Convention for listing chlordecone in Annex A of the Convention, as contained in documents UNEP/POPS/POPRC.1/INF/6 and UNEP/POPS/POPRC.1/6. In addition to the information provided in those documents, she noted that some fungicidal properties had been attributed to the chemical, that another trade name, Curlone, had been identified and that, even though the chemical had been phased out in the European Union, there was some evidence of its recent use in banana fields in certain island dependencies of a European Union member State, posing the risk that existing stock would continue to be used. She noted that, while some of the data gathered for the screening process were at least 10 years old, more recent information could be collected if and when a risk profile was prepared. Environmental fate monitoring data could be considered to estimate long-range environmental transport, loadings to remote ecosystems and degradation rates. In addition, given the similarity and linkages between chlordecone and mirex, data from the latter could be used to assist in the preparation of the risk profile.

55. Following the discussion, the Committee agreed to set up a drafting group to prepare a document detailing whether the chemical fulfilled each of the screening criteria, including references for the data cited. The Committee invited Mr. Rae (Australia) and Ms. Al-Easa (Qatar) to serve as co-chairs of the group.

56. The drafting group concluded that chlordecone met the screening criteria listed in Annex D to the Convention and submitted a draft decision for consideration by the Committee.

57. The Committee adopted decision POPRC-1/4 on chlordecone, contained in annex I to the present report.

C. Hexabromobiphenyl

58. Ms. Ylä-Mononen introduced the proposal contained in documents UNEP/POPS/POPRC.1/INF/7 and UNEP/POPS/POPRC.1/7, submitted by the European Union and its member States that are Party to the Stockholm Convention, for listing hexabromobiphenyl in Annex A. She pointed out that the proposal was based primarily on data contained in the 1994 Environmental Health Criteria report No. 152, which had been internationally peer-reviewed. Noting that hexabromobiphenyl was only one substance in a class of polybrominated biphenyls (PBBs), she explained that it had been selected principally because it constituted the major component in several commercial products of concern. She proposed that, owing to the harmful persistent organic pollutant properties of hexabromobiphenyl and the risks related to its possible and continuing production and use, global action was warranted to eliminate any pollution caused by its production and use. She informed the Committee that, should the proposal pass the screening stage, the European Union would help in creating a risk profile for hexabromobiphenyl.

59. Following that presentation, there was some discussion as to whether other polybrominated biphenyls should be considered together with hexabromobiphenyl. The Committee decided that, although other brominated biphenyls might have similar properties, it would continue its consideration of the proposal as submitted and defer consideration of other PBBs. In addition, during the discussion of the chemical identity of hexabromobiphenyl, the Committee agreed that it would use a common formula covering all isomers of the substance.

60. The Committee agreed to set up a drafting group to prepare a document detailing whether the chemical fulfilled each of the screening criteria, including references for the data cited. The Committee invited Mr. Chenier (Canada) and Mr. Kitano to chair the group.
61. The drafting group concluded that hexabromobiphenyl met the screening criteria listed in Annex D to the Convention and submitted a draft decision for consideration by the Committee.
62. The Committee agreed that the fact that the data provided during the meeting by one expert was based on peer-reviewed tests carried out on a mixture of both pentabromobiphenyls and hexabromobiphenyls did not affect the validity of the conclusion that hexabromobiphenyl met the screening criterion on bioaccumulation.
63. The Committee adopted decision POPRC-1/5 on hexabromobiphenyl contained in annex I to the present report.

D. Lindane

64. Mr. Yarto introduced the proposal submitted by the Government of Mexico for listing lindane in Annex A to the Convention, as contained in documents UNEP/POPS/POPRC.1/INF/8 and UNEP/POPS/POPRC.1/8. He drew attention in particular to the fact that the use of lindane was restricted under the 1998 Protocol on Persistent Organic Pollutants to the Convention on Long-range Transboundary Air Pollution and that it was included in the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Several countries had already banned or severely restricted the chemical.
65. In the ensuing discussion, several experts questioned whether the proposal submitted by Mexico included only lindane – which by definition consisted of at least 99 per cent of the gamma isomer of hexachlorocyclohexane (HCH) – or also its alpha and beta isomers, especially given that the latter were persistent and had similar properties to the gamma isomer. While the letter received from Mexico notifying the proposal mentioned all isomers, the proposal covered data mainly related to the gamma isomer, as that was the chemical used as a pesticide and the one of most commercial interest. It was clear, however, that the alpha and beta isomers were produced in large quantities during the production of the gamma isomer. The alpha and beta isomers had been reported in human milk samples and beta isomers in marine mammals in the Arctic. The question was raised as to whether those isomers could be considered as unintentional by-products and thereby be covered under Annex C to the Convention. It was noted that information was needed – and should be requested – on the large quantities of obsolete stocks and stockpiles which still existed. The Committee agreed that, while its discussions could include the alpha and beta isomers, any decision to propose inclusion of the chemical in the Convention would apply only to the gamma isomer. It also agreed that more information was needed and should be requested on the possible isomerization from gamma to alpha and beta isomers. The Committee decided to request clarification and guidance from the Conference of the Parties on how to deal with the issue of isomers.
66. The Committee agreed to set up a contact group with the mandate to discuss the issue of bioaccumulation and to evaluate whether lindane met the screening criteria in an integrative and flexible manner. The contact group would then become a drafting group to prepare a document detailing whether lindane fulfilled the screening criteria on persistence, potential long-range environmental transport and adverse effects. Ms. Alvarez, Mr. Bouwman and Ms. Skåre were invited to chair the group.
67. Reporting back on the work of the group, Ms. Alvarez said that the evaluation, decision and workplan covered only the gamma isomer of HCH and not its alpha and beta isomers. That observation notwithstanding, the Committee noted that the alpha and beta isomers were of great concern as impurities in the production of the gamma isomer.
68. One expert pointed out that, although the weight of evidence for bioaccumulation was deemed sufficient, the numerical bioaccumulation criterion was not met as there was insufficient evidence that the bioconcentration factor or bioaccumulation factor in aquatic species for the chemical was greater than 5,000 or that the log Kow was greater than 5.
69. The drafting group concluded that lindane met the screening criteria listed in Annex D of the Convention and submitted a draft decision for consideration by the Committee.
70. The Committee adopted decision POPRC-1/6 on lindane contained in annex I to the present report.

E. Perfluorooctane sulfonate

71. Mr. Wahlström (Sweden) introduced the proposal for listing perfluorooctane sulfonate in Annex A of the Convention, as contained in documents UNEP/POPS/POPRC.1/INF/9 and UNEP/POPS/POPRC.1/9, and further refined by Sweden in a conference room paper distributed during the meeting. He clarified that, in addition to perfluorooctane sulfonate itself, Sweden had intended that a further 96 related substances which degraded to perfluorooctane sulfonate should be included in Annex A. He noted that the data supporting the proposal had been subject to several reviews, including those by the United Kingdom and the Organization for Economic Cooperation and Development (OECD) in 2002.

72. Following a discussion on the proposal, it was agreed that the submission for perfluorooctane sulfonate should also refer to its salts and the proposal should therefore be entitled “perfluorooctane sulfonate and its salts”.

73. After further discussion, the Committee agreed to set up an open-ended contact group to prepare an evaluation of whether perfluorooctane sulfonate fulfilled the bioaccumulation criterion. The Committee invited Mr. Hu (China) and Mr. Chenier (Canada) to chair the group.

74. The Committee agreed that the contact group would then become a drafting group to prepare a document detailing whether perfluorooctane sulfonate fulfilled the screening criteria on persistence, potential long-range environmental transport and adverse effects, including references for the data cited, taking into consideration the conclusions on the bioaccumulation criterion. The Committee invited Mr. Hu and Mr. Chenier to chair the group.

75. One expert pointed out that, although the weight of evidence for bioaccumulation was deemed sufficient, the numerical bioaccumulation criterion was not met as there was insufficient evidence that the bioconcentration factor or bioaccumulation factor in aquatic species for the chemical was greater than 5,000 or that the log Kow was greater than 5.

76. For its further work, the Committee decided to collect information for the risk profile, including on the degradation of the 96 substances to perfluorooctane sulfonate in the environment, and other chemicals with similar behaviour

77. The drafting group concluded that perfluorooctane sulfonate met the screening criteria listed in Annex D of the Convention and submitted a draft decision for consideration by the Committee.

78. The Committee adopted decision POPSRC-1/7 on perfluorooctane sulfonate contained in annex I to the present report.

F. Definition of bioconcentration, bioaccumulation and biomagnification

79. In the consideration of the proposals for the inclusion of chemicals, there was considerable debate about the concept of bioaccumulation and the need to clarify and define the concepts of bioaccumulation, bioconcentration and biomagnification. Accordingly, the Chair invited interested experts to form a contact group, chaired by Mr. Kitano, to prepare a paper providing a detailed explanation of those concepts. After reviewing the paper, the Committee adopted the definitions for the purpose of providing interpretative guidance to the work of the Committee. The Committee adopted the definitions contained in annex III to the present report.

G. Intersessional working groups

80. In adopting its decisions on chemicals, the Committee decided, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7 of the Conference of the Parties to the Stockholm Convention, to establish intersessional ad hoc working groups to review the proposals further and to prepare draft risk profiles in accordance with Annex E to the Convention. It was agreed that the chair of any given group could declare that group closed and thereby convert it into a drafting group. The composition of those groups is contained in annex VI to the present report.

VI. Other matters

A. Format for submission of information specified in Annex F

81. Following a discussion on a possible format, timeline and workplan for the submission of information on social and economic considerations under Annex F to the Convention, the Committee agreed that the intersessional working group established to discuss the issue of confidentiality would

also give further consideration to the format for submission of information specified in Annex F. Attention was drawn to the need to take into account the experience gained when discussing Annex E to the Convention, the information requirements for the risk profile, and activities under other international conventions such as the Montreal Protocol on Ozone-depleting Substances. It was pointed out that experts in the domains covered by Annex F would be required on the roster of experts when the issue was considered in more depth.

B. Translation issue

82. One expert expressed concerns about the translation in the Spanish version of the Convention of the term “screening criteria”. The representative of the Secretariat clarified that the correct procedure for amending the text of the Convention was for a Party to submit its proposal for an amendment to the depositary. Any proposed amendments, could, however, be submitted to the Secretariat for its consideration and guidance.

C. Internet access

83. One expert drew attention to problems associated with internet access in some developing countries, which might hamper the full involvement of some experts in the intersessional activities of the Committee as set out in the standard workplan.

VII. Adoption of the report

84. The Committee adopted the present report on the basis of the drafts contained in documents UNEP/POPS/POPRC.1/L.1 and Add.1 as amended and on the understanding that the Rapporteur would be entrusted with its finalization, working in consultation with the secretariat.

VIII. Closure of meeting

85. The meeting was declared closed by the Chair at 6 p.m. on Friday, 11 November 2005.

Annex I

Decisions adopted by the Persistent Organic Pollutants Review Committee at its first meeting

Decision POPRC-1/1: Provisional confidentiality arrangements

The Persistent Organic Pollutants Review Committee,

Recalling paragraph 19 of the terms of reference of the Persistent Organic Pollutants Review Committee adopted by the Conference of the Parties of the Convention at its first meeting, in its decision SC-1/7, which requires the Committee to establish confidentiality arrangements as a matter of priority and indicates that, in handling confidential information and in establishing such arrangements, the Committee shall ensure that paragraph 5 of Article 9 of the Convention is respected,

Bearing in mind paragraph 5 of Article 9 of the Convention, which states that information on health and safety of humans and the environment shall not be regarded as confidential and that the Parties that exchange other information pursuant to the Convention shall protect any confidential information as mutually agreed,

1. *Requests* the Secretariat to develop draft confidentiality arrangements for consideration by the Committee at its next meeting;

2. *Decides* to apply the following provisional arrangements to confidential information until final arrangements are established by the Committee:

(a) Any Party or any observer, when submitting information to the Committee, through the Secretariat, may identify and clearly label specific items of information submitted as confidential and requiring application of the provisional procedures for treatment of confidential information;

(b) When receiving information labelled as confidential, the Secretariat or the Committee shall consider with the Party or the observer referred to in paragraph 2 (a) above the need for such labelling and mutually agree on the applicability of the provisional confidentiality arrangements to the information item in question;

(c) In addition to the information on health and safety of humans and the environment, the following types of information shall not be deemed confidential for the purposes of the work of the Committee:

- (i) Information submitted pursuant to paragraphs (b)–(g) of Annex E to the Convention;
- (ii) [Information submitted pursuant to Annex F to the Convention;]
- (iii) Information which is otherwise publicly available;
- (iv) Information which cannot be labelled as confidential according to the domestic legislation of the State or regional economic integration organization of the origin of the information;

(d) In the event that agreement is reached on the labelling of an information item as confidential in accordance with paragraph 2 (b) above, the following procedure is established for the treatment of such information:

- (i) Members of the Committee, invited experts and staff members of the Secretariat will be notified of their respective responsibilities;
- (ii) The Committee will apply on a provisional basis, with respective changes and where applicable, certain provisions of the “Code of practice for the treatment of confidential information in the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention”, developed under the Kyoto Protocol to the United Nations Framework Convention on Climate Change for the Subsidiary Body for Scientific and Technological Advice, as attached in annex I to the present decision;

- (iii) The Secretariat will apply on a provisional basis, with respective changes and where applicable, selected procedures to implement the Code referred to in paragraph 2 (d) (ii) above, as attached in annex II to the present decision.

Annex I to decision POPRC-1/1

Excerpts relevant to paragraph 2 (d) (ii) of decision POPRC-1/1 extracted from the Code of Practice for the Treatment of Confidential Information in the Technical Review of Greenhouse Gas Inventories from Parties¹ included in Annex I to the Convention, developed under the Kyoto Protocol to the United Nations Framework Convention on Climate Change

1. [...] a Party has a right to designate information as confidential [...] and request that this information be aggregated by the secretariat to protect its confidentiality before being made available to any of the bodies involved in the communication and review of information. Should a Party [...] voluntarily allow access to [...] information [...], the provisions in this code of practice shall apply.
2. Prior to the provision of specific [...] information that [...] a Party wishes to be considered as confidential, that Party may assert a confidentiality claim by submitting a notification [...] indicating that the information is considered confidential and requesting that it be protected according to the procedures in this code of practice. The assertion of confidentiality shall be accompanied by documentation of the Party's basis for such protection [...].
3. The secretariat shall confirm receipt of an assertion of confidentiality and provide a written assurance to the Party that the information will be protected in accordance with these procedures.
4. Any confidential information shall be submitted separately from other [...] information, and in hard copy only, and shall be clearly designated as confidential by the Party.
5. The secretariat shall ensure that any [...] information it receives [...], which has been designated as confidential by the Party in accordance with paragraphs 2–4 above, is protected in accordance with these procedures.
6. Information designated as confidential shall be stored in a secure, locked location. Only authorized staff and review team members shall be given access to this information, in accordance with procedures to be established.
7. All [...] team members shall be required to sign an agreement [...], which shall include provisions for protection of confidential information. The obligation of a [...] team member to protect confidential information shall continue after completion of his or her services.
8. Expert reviewers [...] shall not be given access to information designated as confidential if a known potential conflict of interest with regard to that information has been disclosed in accordance with the agreement [...].
9. [...]
10. Information designated as confidential shall not be distributed or disclosed to non-authorized individuals and/or organizations and shall not be distributed beyond the secretariat's control.
11. Secretariat staff with a need to handle information designated as confidential shall be instructed in responsibilities [...] to protect the confidentiality of such information.
12. Expert [...] members with a need to handle information designated as confidential shall be instructed in responsibilities [...] to protect the confidentiality of such information.
13. [...]
14. [...]
15. Any internal documentation developed [...] which contains information designated as confidential shall also be considered confidential and shall be handled in accordance with the above procedures. Confidential information shall not be included in [...] reports.

¹ For the purposes of the provisional confidentiality arrangements of the Persistent Organic Pollutants Review Committee, "Party" as referred to in the text quoted below is to be understood as "Party or observer".

16. The Secretariat shall make publicly available information on its policies and procedures to protect confidential information [...]

Annex II to decision POPRC-1/1

Excerpts relevant to paragraph 2 (d) (iii) of decision POPRC-1/1 extracted from the Code of Practice for the Treatment of Confidential Information in the Technical Review of Greenhouse Gas Inventories from Parties² included in Annex I to the Convention, developed under the Kyoto Protocol to the United Nations Framework Convention on Climate Change

1. The secretariat will follow the “Code of practice for the treatment of confidential information in the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention”[...].
2. Independent of the “Code of practice for the treatment of confidential information in the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention”, all secretariat staff are subject to United Nations regulations and standards of conduct, even after termination of the employment contract. This contains specific provisions that prohibit staff from disclosing information made known to them in their official role.
3. The secretariat will establish the following internal procedures to implement the code of practice:
 - (a) The manager [...] is responsible for ensuring proper receipt, storage and handling of confidential information.
 - (b) Only authorized personnel will have access to the location. The confidential information will be stored in a secure, locked cabinet. The secretariat will store the confidential information in a locked filing cabinet. This will only be used to store confidential information.
 - (c) Confidential information will only be accepted in hard copy from Parties, in accordance with the code of practice. The information will not be entered in [...] database, to avoid possible disclosure of confidential information.
 - (d) All documents submitted from Parties with confidential information will be marked clearly as “Confidential” on a separate cover page.³
 - (e) The secretariat will establish a logging system for tracking the receipt and handling of confidential documents. The system will record the date when the information is received, the Party that submitted the information and assign a log number to the document. In addition, the system would track signout and return of confidential documents by authorized personnel.
 - (f) All staff [...] will be given instruction on correct procedures for handling confidential information.
 - (g) Individual staff will be authorized to access confidential information on a need-to-know basis [...]
 - (h) Staff who are authorized to access confidential documents will ensure that the documents are never left unattended in an empty office. If confidential information must be transported to an external location [...].
 - (i) [...]
 - (j) [...]
 - (k) Under no circumstances will experts be allowed to copy confidential information, or review it away from secretariat supervision.
 - (l) Confidential information will not be sent to experts [...]

² For the purposes of the provisional confidentiality arrangements of the Persistent Organic Pollutants Review Committee, “Parties” as referred to in the text quoted below are to be understood as “Parties or observers”.

³ It is expected that Parties will submit confidential information with labels marking it as such on all pages.

Decision POPRC-1/2: Invited experts

The Persistent Organic Pollutants Review Committee

1. *Establishes* the following criteria to be taken into consideration when selecting experts pursuant to paragraphs 10–12 of its terms of reference:
 - (a) The need for areas of expertise or specific substance knowledge to support its work; and
 - (b) The need to achieve an appropriate balance between developed and developing countries;
2. *Decides* to forward the criteria listed in paragraph 1 above to the Conference of the Parties for consideration and possible adoption at its second meeting;
3. *Agrees* to the process for inviting experts listed in the annex to the present decision.

Annex to decision POPRC-1/2

Process for inviting experts pursuant to paragraphs 10–12 of the terms of reference of the Committee

1. The Committee may invite experts to participate in its meetings in accordance with paragraphs 10–12 of its terms of reference.
2. During the intersessional period between meetings:
 - (a) If a need for specific expertise is identified by a drafting or working group (for example, during the development of the draft risk profiles), the chair of the group shall communicate this need to the Secretariat;
 - (b) The Secretariat shall verify whether the expertise needed is available from the experts on the roster, and:
 - (i) If the Secretariat identifies an expert with such expertise, it shall ask the chair of the group to confirm that the identified expert has the necessary expertise. If that is the case, the Chair or Vice-Chair of the Committee shall decide whether the expert is to be invited to participate in the work of the drafting or working groups or in the next meeting of the Committee;
 - (ii) If the Secretariat is not able to identify an expert with the needed expertise, it will inform the chair of the group accordingly;
 - (c) If it is determined under subparagraph 2 (b) that needed expertise is not available on the roster of experts, the chair of the group, in consultation with the Secretariat, may identify other experts for this purpose. The Chair or Vice-Chair of the Committee shall decide whether the expert identified is to be invited to participate in the work of the drafting or working groups or at the next meeting of the Committee.
3. In inviting experts, the criteria established by the Committee shall be taken into consideration.
4. The Secretariat shall invite the expert taking into account the availability of resources.

Decision POPRC-1/3: Pentabromodiphenyl ether

The Persistent Organic Pollutants Review Committee,

Having examined the proposal by Norway, which is a Party to the Stockholm Convention on Persistent Organic Pollutants, to list pentabromodiphenyl ether in Annex A to the Convention and having applied the screening criteria specified in Annex D to the Convention,

Noting that the commercial product hereinunder termed PentaBDE is a mixture and does not have a Chemical Abstracts Service number, but that its identified individual components have the following Chemical Abstracts Service numbers:

- (a) Pentabromodiphenyl ether (CAS No. 32534-81-9) 50–62% w/w;
- (b) Tetrabromodiphenyl ether (CAS No. 40088-47-9) 24–38% w/w;
- (c) Tribromodiphenyl ether (CAS No. 49690-94-0) 0–1% w/w;
- (d) Hexabromodiphenyl ether (CAS No. 36483-60-0) 4–12% w/w;
- (e) Heptabromodiphenyl ether (CAS No. 68928-80-3) trace,

1. *Decides*, in accordance with paragraph 4 (a) of Article 8 of the Convention, that it is satisfied that the screening criteria have been fulfilled for PentaBDE, as set out in the evaluation contained in the annex to the present decision;

2. *Decides furthermore*, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7 of the Conference of the Parties to the Stockholm Convention, to establish an ad hoc working group to review the proposal further and to prepare a draft risk profile in accordance with Annex E to the Convention;

3. *Invites*, in accordance with paragraph 4 (a) of Article 8 of the Convention, Parties and observers to submit to the Secretariat the information specified in Annex E before 27 January 2006.

Annex to decision POPRC-1/3

Evaluation of pentabromodiphenyl ether against the criteria of Annex D

A. Background

1. The primary source of information for the preparation of this evaluation was the proposal submitted by Norway, contained in document UNEP/POPS/POPRC.1/5.
2. Additional sources of scientific information included critical reviews prepared by recognized authorities and peer-reviewed scientific papers.

B. Evaluation

3. The proposal was evaluated in the light of the requirements of Annex D, regarding the identification of the chemical (paragraph 1 (a)) and the screening criteria (paragraphs 1 (b)–(e)):

- (a) **Chemical identity:**
 - (i) Adequate information was provided in the proposal and supporting documents;
 - (ii) The chemical structure was provided;

The chemical identity of PentaBDE is clearly established;

(b) Persistence:

- (i) The estimated half-life in water for two polybrominated diphenyl ether (PBDE) congeners (PBDE-47 and PBDE-99)¹ is 150 days, which exceeds the BCF criteria (Refs. 1, 3 and 7);
- (ii) Deposits of PBDE congeners that were present in marine sediments a few decades ago are still present in clearly quantifiable amounts (Refs. 1,4 and 7);

There is sufficient evidence that PentaBDE meets the persistence criterion;

(c) Bioaccumulation:

- (i) Log Kow is greater than 5 (log Kow values 6.46–6.97). The reported bioconcentration factors for *Cyprinus carpio* are 66,700 for PBDE-47 and 17,700 for PBDE-99 (Refs. 1 and 3);
- (ii) and (iii) Data from around the world demonstrate increasing levels of PentaBDE congeners with rising trophic position (Refs. 3 and 4). Recent publications confirm food chain transfer in the Arctic (Refs. 5 and 6);

There is sufficient evidence that PentaBDE meets the bioaccumulation criterion;

(d) Potential for long-range environmental transport:

- (i) and (iii) PentaBDE has a low vapour pressure ($9.6 \cdot 10^{-8}$ – $4.7 \cdot 10^{-5}$ Pa) and modelling data show an estimated half-life in air greater than two days. The estimated half-lives for PBDE-47 and PBDE-99 in air are between 10 and 20 days (Refs. 1, 3 and 7);
- (ii) Monitoring data show that the substance is found in remote areas (Refs. 1, 2 and 7). PentaBDE congeners have been found in Arctic air with a concentration range from <1 to 20 pg/m³ (Refs. 1 and 7). There is also a substantial amount of monitoring data in marine mammals, birds, fish, lake sediments, etc., in remote areas (Refs. 1, 3, 4 and 7);

There is sufficient evidence that PentaBDE meets the criterion on potential for long-range environmental transport;

Adverse effects:

- (i) There are no data provided on the direct toxicological effects of PentaBDE or PBDE congeners in humans;
- (ii) There is evidence of reproductive toxicity in invertebrates and fish. The EC₅₀ for larval development for marine copepod ranged between 13 and 4 mg/L for PBDE-47 and PBDE-99, respectively. The lowest-observed-adverse effect level (LOAEL) in rodents for developmental neurotoxicity and liver toxicity ranged from 0.6 to 10 mg/kg body weight/day (Refs. 1, 2, 3, 4 and 7);

There is sufficient evidence that PentaBDE meets the criterion on adverse effects.

C. Conclusion

4. The Committee concluded that commercial pentabromodiphenyl ether (PentaBDE) meets the screening criteria specified in Annex D.

¹ PBDE-47 and PBDE-99 are two congeners within the family of polybrominated diphenyl ethers (i.e., 2,2',4,4'-tetrabromodiphenyl ether and 2,2',4,4',5-pentabromodiphenyl ether respectively).

References

1. UNEP/POPS/POPRC.1/5.
2. *Environmental Health Criteria No. 162: Brominated Diphenyl Ethers*. International Programme on Chemical Safety, UNEP, ILO, WHO. Geneva. 1994. (<http://www.inchem.org/documents/ehc/ehc/ehc162.htm>).
3. *Risk Assessment Report for Diphenyl Ether, Pentabromo Derivative (Pentabromodiphenyl Ether), Final Report of August 2000*. European Commission. 2000.
4. *Brominated Flame Retardants*. Report 5065 (author C.A. de Wit), Swedish Environmental Protection Agency, Stockholm. 2000. ISBN 91-620-5065-6.
5. Wolkers H., van Bavel B., Derocher A.E., Wiig O., Kovacs K.M.; Lydersen C., Lindstrom G. "Congener-specific accumulation and food chain transfer of polybrominated diphenyl ethers in two Arctic food chains". *Environmental Science and Technology*. 2004. 38:1667–1674.
6. Personal communication based on a scientific paper submitted for publication to the *Journal of Environmental Toxicology and Chemistry*. (Sormo, E.G., Salmer, M.P., Jenssen B.M., Hop H., Baek K., Kovacs, K.M., Lydersen, C., Falk-Peterssen S., Gabrielsen, G.W., Lie, Elisabeth and Skaare, J.U., 2005).
7. *TemaNord 2001: 579*, 72 pp., Nordic Council of Ministers 2001.

Decision POPRC-1/4: Chlordecone

The Persistent Organic Pollutants Review Committee,

Having examined the proposal by the European Community and its member States that are Parties to the Stockholm Convention on Persistent Organic Pollutants to list chlordecone (Chemical Abstracts Service Number 143-50-0) in Annex A to the Convention and having applied the screening criteria specified in Annex D to the Convention,

1. *Decides*, in accordance with paragraph 4 (a) of Article 8 of the Convention, that it is satisfied that the screening criteria have been fulfilled for chlordecone, as set out in the evaluation contained in the annex to the present decision;
2. *Decides furthermore*, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7 of the Conference of the Parties to the Stockholm Convention, to establish an ad hoc working group to review the proposal further and to prepare a draft risk profile in accordance with Annex E to the Convention;
3. *Invites*, in accordance with paragraph 4 (a) of Article 8 of the Convention, Parties and observers to submit to the Secretariat the information specified in Annex E before 27 January 2006.

Annex to decision POPRC-1/4

Evaluation of chlordecone against the criteria of Annex D

A. Background

1. The primary source of information for the preparation of this evaluation was the proposal submitted by the European Community and its member States that are Parties to the Convention, contained in document UNEP/POPS/POPRC.1/6.
2. Additional sources of scientific information included critical reviews prepared by recognized authorities and peer-reviewed scientific papers.

B. Evaluation

3. The proposal was evaluated in the light of the requirements of annex D, regarding the identification of the chemical (paragraph 1 (a)) and the screening criteria (paragraphs 1 (b)–(e)):

(a) Chemical identity:

- (i) Adequate information was provided in the proposal. The Review Committee was informed about a further trade name for this substance: “Curlone”;
- (ii) The chemical structure was provided. No isomers are possible. Mirex has a similar chemical structure;

The chemical identity of chlordecone is clearly established;

(b) Persistence:

- (i) The half-life in soils exceeds the criterion value of six months. It is reported to be from 1 to 2 years (Refs. 1 and 2). By analogy with mirex, one report suggests that the half-life could be three years or longer (Ref. 3);
- (ii) A new scientific paper indicates that, in the James River (Virginia, United States of America), downstream of a facility that produced Kepone (chlordecone), the chemical is still detected in fish samples more than 20 years after the production had been phased out (Ref. 4);

There is sufficient evidence that chlordecone meets the persistence criterion;

(c) Bioaccumulation:

(i) The reported bioconcentration factors are summarized below (Ref. 5):

Unicellular algae: 230–800

Aquatic invertebrates: 5,127–11,425

Fish: 1,800–16,600

(ii) and (iii) There is additional information supporting the potential for bioaccumulation and biomagnification, including an excretion half-life in mammals of several months and the detection of high levels of the chemical in fish and birds (Refs. 3 and 5). This bioaccumulation is a consequence of the lipophilic nature of the chemical, for which the log Kow value is 4.50–6.00 (Refs. 2, 3 and 5);

There is sufficient evidence that chlordecone meets the bioaccumulation criterion;

(d) Potential for long-range environmental transport:

(i) and (ii) No data on environmental levels were available reflecting long-range transport;

(iii) The vapour pressure of chlordecone (2.25×10^{-7} mm Hg at 25°C) (Ref. 6) is such that long-range transport in the atmosphere can be anticipated, and dissemination in particulate form has been observed. Modelling studies suggest life-times in air substantially in excess of the criterion value of two days (Ref. 2);

There is sufficient evidence that chlordecone meets the criterion on potential for long-range environmental transport;

(e) Adverse effects:

(i) Workers exposed in their work place showed clinical signs of chlordecone poisoning (Ref. 3);

(ii) There are extensive data showing potential for adverse effects on humans and ecosystems, including carcinogenicity and reproductive effects and very high toxicity for aquatic organisms (fish non-observed-effect concentration < 1 microgram per litre) (Ref. 5);

There is sufficient evidence that chlordecone meets the criterion on adverse effects.

C. Conclusion

4. The Committee concluded that chlordecone meets the screening criteria specified in Annex D.

References

1. *Regional reports of the regionally based assessments of persistent toxic substances*. UNEP. 2002.
2. Howard, Phillip H., *Handbook of Environmental Fate and Exposure Data for Organic Chemicals, Vol. 3: Pesticides*. Lewis Publishers. 1989.
3. *Toxicological Profile for Mirex and Chlordecone*. United States Department of Health and Human Services. 1995.
4. Luellen et al. *Science of the Total Environment 2005* (in press).
5. *Environmental Health Criteria No. 43: Chlordecone*. International Programme on Chemical Safety. UNEP, ILO, WHO. Geneva. 1984. (<http://www.inchem.org/documents/ehc/ehc/ehc43.htm>).
6. Kilzer et al. *Chemosphere* 8. 1979.

Decision POPRC-1/5: Hexabromobiphenyl

The Persistent Organic Pollutants Review Committee,

Having examined the proposal by the European Community and its member States that are Parties to the Stockholm Convention on Persistent Organic Pollutants to list hexabromobiphenyl (Chemical Abstracts Service Number 36355-01-8) in Annex A to the Convention and having applied the screening criteria specified in Annex D to the Convention,

1. *Decides*, in accordance with paragraph 4 (a) of Article 8 of the Convention, that it is satisfied that the screening criteria have been fulfilled for hexabromobiphenyl, as set out in the evaluation contained in the annex to the present decision;
2. *Decides furthermore*, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7 of the Conference of the Parties to the Stockholm Convention, to establish an ad hoc working group to review the proposal further and to prepare a draft risk profile in accordance with Annex E to the Convention;
3. *Invites*, in accordance with paragraph 4 (a) of Article 8 of the Convention, Parties and observers to submit to the Secretariat the information specified in Annex E before 27 January 2006.

Annex to decision POPRC-1/5

Evaluation of hexabromobiphenyl against the criteria of Annex D

A. Background

1. The primary source of information for the preparation of this evaluation was the proposal, submitted by the European Community and its member States that are Parties to the Convention, contained in document UNEP/POPS/POPRC.1/7.
2. Additional sources of scientific information included critical reviews prepared by recognized authorities.

B. Evaluation

3. The proposal was evaluated in the light of the requirements of Annex D, regarding the identification of the chemical (paragraph 1 (a)) and the screening criteria (paragraphs 1 (b)–(e)):

(a) Chemical identity:

- (i) Adequate information was provided in the proposal, which covers exclusively hexabromobiphenyl;
- (ii) The chemical structure was provided in the proposal. There are 42 different isomers of hexabromobiphenyl. Commercial products contain mixtures of various congeners, homologues and isomers;

The chemical identity of hexabromobiphenyl is clearly established;

(b) Persistence:

- (i) There is evidence from soil-incubation studies that the half-life in soil is greater than six months (Ref. 1);
- (ii) There is some information on its photolytic degradation in water and in the environment. Its photolytic degradation rate in the environment, however, is not clear (Ref. 1). A follow-up survey of contaminated soils and sediments in Michigan, United States of America, over several years indicates high persistence (Ref. 1);

There is sufficient evidence that hexabromobiphenyl meets the persistence criterion;

(c) Bioaccumulation:

- (i) A bioconcentration factor of 11,000 was determined in carp using an Organization for Economic Cooperation and Development (OECD) test guideline (Ref. 2). A fish field bioaccumulation value of 10,000 has been reported, but the Committee had concerns about the analytical measurements in this field study (Ref. 1);
- (ii) and (iii) Additional information from the Michigan incident (Ref. 1), toxicokinetic data in mammals and monitoring data in biota confirm the bioaccumulation potential;

There is sufficient evidence that hexabromobiphenyl meets the bioaccumulation criterion;

(d) Potential for long-range environmental transport:

- (i) and (ii) There are measured levels in biota, including monitoring results from seals and reindeers from locations far from the assumed sources (Ref. 1);
- (iii) No data on half-life in air are available. The physico-chemical properties suggest that the chemical would be adsorbed on particulate matter and would therefore resist atmospheric degradation;

There is sufficient evidence that hexabromobiphenyl meets the criterion on potential for long-range transport;

(e) Adverse effects:

- (i) There are extensive data on hexabromobiphenyl poisoning in livestock in the Michigan incident (Ref. 1) resulting in reproductive and growth effects even in animals exposed to low-level contamination (Ref. 1);
- (ii) Hexabromobiphenyl has been classified by the International Agency for Research on Cancer (IARC) as a possible human carcinogen, category 2B (Ref. 3). There are several long-term toxicity studies on mammals confirming the toxicity of hexabromobiphenyl. There are no data on long-term toxicity on aquatic organisms (Ref. 1);

There is sufficient evidence that hexabromobiphenyl meets the criterion on adverse effects.

C. Conclusion

4. The Committee concluded that hexabromobiphenyl meets the screening criteria specified in Annex D.

References

1. *Environmental Health Criteria No. 152: Polybrominated biphenyls*. IPCS, UNEP, ILO, WHO. Geneva. 1994. (<http://www.inchem.org/documents/ehc/ehc/ehc152.htm>).
2. Data peer-reviewed by the Chemical Products Council of the Ministry of Economy, Trade and Industry, Japan (www.safe.nite.go.jp/data/hazkizon/pk_kizon_data_result.home_data).
3. *IARC Monographs*, International Agency for Research on Cancer (IARC) (1986–1987), Lyon.

Decision POPRC-1/6: Lindane

The Persistent Organic Pollutants Review Committee,

Having examined the proposal by Mexico, which is a Party to the Stockholm Convention on Persistent Organic Pollutants, to list lindane (Chemical Abstracts Service Number 58-89-9) in Annex A to the Convention and having applied the screening criteria specified in Annex D to the Convention,

1. *Decides*, in accordance with paragraph 4 (a) of Article 8 of the Convention, that it is satisfied that the screening criteria have been fulfilled for lindane, as set out in the evaluation contained in the annex to the present decision;
2. *Decides furthermore*, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7 of the Conference of the Parties to the Stockholm Convention, to establish an ad hoc working group to review the proposal further and to prepare a draft risk profile in accordance with Annex E to the Convention;
3. *Invites*, in accordance with paragraph 4 (a) of Article 8 of the Convention, Parties and observers to submit to the Secretariat the information specified in Annex E before 27 January 2006.

Annex to decision POPRC-1/6

Evaluation of lindane against the criteria of Annex D

A. Background

1. The primary source of information for the preparation of this evaluation was the proposal submitted by Mexico, contained in document UNEP/POPS/POPRC.1/8.
2. Additional sources of scientific information included critical reviews prepared by recognized authorities and peer-reviewed scientific papers.

B. Evaluation

3. The proposal was evaluated in the light of the requirements of annex D, regarding the identification of the chemical (paragraph 1 (a)) and the screening criteria (paragraphs 1 (b)–(e)):

(a) Chemical identity:

- (i) Adequate information was provided in the proposal. Information was provided to the Committee about further trade names for this substance;
- (ii) The chemical structure was provided. Lindane is one of several hexachlorocyclohexane (HCH) isomers, i.e., the gamma isomer;

The chemical identity of lindane is clearly established;

(b) Persistence:

- (i) The half-life in soil is reported to be two years. This exceeds the criterion value of six months. The half-life in water is 30–300 days (Ref. 1), although it has also been reported to have a half-life in sea water ranging from 1.2 to 19 years depending on water temperature (Refs. 2, 3 and 4). These values exceed the criteria value for water of two months;
- (ii) No data provided;

There is sufficient evidence that lindane meets the persistence criterion;

(c) Bioaccumulation:

- (i) Data found in Environmental Health Criteria 124 (Ref. 5) indicated that bioconcentration factors ranged from 13 to 1,240. The bioconcentration factor values, obtained and peer-reviewed by Japan, were between 327 to 893 in accordance with OECD Test Guidelines. Other references provide measured bioconcentration factors in mussels, daphnia and fish species ranging from 43 to 4,240, depending on the lipid content of the organism. Regarding the

bioaccumulation factor, the only information provided was a value of 12,500 in the Mexican proposal which may be based on the physico-chemical properties and environmental fate for lindane. The log Kow value in the Mexican proposal is 3.5;

- (ii) The bioaccumulation of lindane has been observed for most taxonomic groups, from plants and algae to vertebrates. The environmental consequences of the combination of this bioaccumulation potential with a high toxicity – no-observed-adverse-effect levels (NOAELs) as low as 0.3 mg/kg body weight/day – and ecotoxicity – aquatic ecosystem no-observable-effect concentration (NOEC) below 1 µg/l (Refs. 5 and 6) – should be considered. For example, when measured field levels in earthworms (0.3 mg/kg for a soil containing 80 µg/kg) are weighed against mammalian toxicity data (Ref. 5) using a realistic food intake ratio of 0.63 (Ref. 7) the comparison indicates an area of ecotoxicological concern which should be further explored;
- (iii) Lindane has been reported in seabirds, fish and mammals in the Arctic (Ref. 1). Lindane concentrations in marine mammals are found at equivalent or even higher levels than some of the more hydrophobic contaminants such as polychlorinated biphenyls (PCBs) and DDT (Ref. 1). In addition, lindane has been reported in human breast milk among Inuit in the Arctic and in marine mammals (Ref. 8);

There is sufficient evidence that lindane meets the bioaccumulation criterion;

(d) Potential for long-range environmental transport:

- (i) Lindane has been measured in Arctic air (Ref. 9);
- (ii) Lindane appears consistently in Arctic sea water and fresh water bodies (Ref. 9) and in marine mammals (Ref. 1) indicating that it has travelled long distances. Lindane, as a volatile compound, can be found in other remote regions according to the proposal;
- (iii) Estimations of lindane and technical-HCH global usage have been presented based on atmospheric concentrations and modelling of estimated emissions throughout the world (Ref. 1). The vapour pressure of lindane is 3.8×10^{-3} Pa, photodegradation is insignificant and its half-life in air is 2.3–13 days (Ref. 1). Other authors have measured longer half-lives of 56 days (Ref. 10);

There is sufficient evidence that lindane meets the criterion on potential for long-range environmental transport;

(f) Adverse effects:

- (i) and (ii) Lindane has been identified as a 2B carcinogen, i.e., possibly carcinogenic to humans by IARC (Ref. 1). It is also highly toxic to aquatic organisms (Ref. 5). In the proposal, there are several other toxic endpoints listed that are relevant to humans and animals;

There is sufficient evidence that lindane meets the criterion on adverse effects.

C. Conclusion

- 4. The Committee concluded that lindane meets the screening criteria specified in Annex D.

References

1. UNEP/POPS/POPRC.1/8
2. Nagabe, et al., *Environmental Science and Technology*. 27: 1930–1933. 1993.
3. Harner, T. et al., *Environmental Science and Technology*. 33: 1157–1164. 1999.
4. Harner, T. et al., *Geophysical Research Letters*. 27: 1155–1158. 2000.
5. *Environmental Health Criteria No. 124: Lindane*. International Programme on Chemical Safety. UNEP, ILO, WHO. Geneva. 1991. (<http://www.inchem.org/documents/ehc/ehc/ehc124.htm>).

6. Brock et al., *Alterra Report 89*, Netherlands. 2000.
7. *Guidance document on risk assessment for birds and mammals under Council Directive 91/414/EEC*. European Union. SANCO/4145/2000 – final, Brussels. 2002.
8. Arctic Monitoring and Assessment Programme. Norway. 2002.
9. Gregor, D., et al., *Environmental Science and Technology*. 23: 561–565, 1989.
10. Brubaker, W. W., and Hites, R.A. 1998. *Environmental Science and Technology* 32 : 766–769.

Decision POPRC-1/7: Perfluorooctane sulfonate

The Persistent Organic Pollutants Review Committee,

Having examined the proposal by Sweden, which is a Party to the Stockholm Convention on Persistent Organic Pollutants, to list perfluorooctane sulfonate and ninety-six potential perfluorooctane sulfonate precursors in Annex A to the Convention and having applied the screening criteria specified in Annex D to the Convention,

Noting that the perfluorooctane sulfonate anion does not have a Chemical Abstracts Service number and does not appear as an anion in the environment, but that the perfluorooctane sulfonate acid and its salts listed in the proposal have the following Chemical Abstracts Service numbers:

(a)	Acid	1763-23-1
(b)	Potassium	2795-39-3
(c)	Lithium	29457-72-5
(d)	Ammonium	29081-56-9
(e)	Diethanolamine salt	70225-14-8

1. *Decides*, in accordance with paragraph 4 (a) of Article 8 of the Convention, that it is satisfied that the screening criteria have been fulfilled for perfluorooctane sulfonate, as set out in the evaluation contained in the annex to the present decision;

2. *Decides also*, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7 of the Conference of the Parties to the Stockholm Convention, to establish an ad hoc working group to review the proposal further and to prepare a draft risk profile in accordance with Annex E to the Convention;

3. *Decides further* that issues related to the inclusion of potential perfluorooctane sulfonate precursors should be dealt with in developing the draft risk profile;

4. *Invites*, in accordance with paragraph 4 (a) of Article 8 of the Convention, Parties and observers to submit to the Secretariat the information specified in Annex E before 27 January 2006.

Annex to decision POPRC-1/7

Evaluation of perfluorooctane sulfonate against the criteria of Annex D

A. Background

1. The primary source of information for the preparation of this evaluation was the proposal submitted by Sweden, contained in document UNEP/POPS/POPRC.1/9.

2. Additional sources of scientific information included critical reviews prepared by recognized authorities and peer-reviewed scientific papers.

B. Evaluation

3. The proposal was evaluated in the light of the requirements of Annex D, regarding the identification of the chemical (paragraph 1 (a)) and the screening criteria (paragraphs 1 (b)–(e)):

(a) Chemical identity:

(i) Adequate information was provided in the proposal covering the acid and some salts;

(ii) The chemical structure of the potassium salt was provided;

The chemical identity of perfluorooctane sulfonate is clearly established. The proposal includes perfluorooctane sulfonate, the acid and its salts;

(b) Persistence:

- (i) None of the tests for degradation (hydrolysis, photolysis, and biodegradation) showed any indication of degradation of PFOS in aquatic or soil systems (Ref. 1);
- (ii) Monitoring data confirm the persistence of PFOS in environmental compartments (Ref. 1);

There is sufficient evidence that PFOS meets the persistence criterion;

(c) Bioaccumulation:

- (i) Bioconcentration factor values for PFOS are lower than the screening criteria (in the range of 240–1,300 for steady-state conditions and up to 2,796 using kinetic estimation) (Ref. 1); PFOS is a surface active substance and, as a result, octanol-water partition coefficient measurements are not relevant (Ref. 2). Bioconcentration factor values are not good predictors of bioaccumulation for this substance because food uptake has been demonstrated to be a relevant route for aquatic organisms (Ref. 3). Bioaccumulation is not related to the lipophilicity and the accumulation does not primarily occur in lipid tissues;
- (ii) Toxicokinetic studies in aquatic and terrestrial vertebrates show very low elimination rates (Refs. 1 and 4). In addition, PFOS has shown developmental effects in mammals at low levels (no observed adverse effect level (NOAEL) value of 0.1 mg/kg body weight/day in rats in a two-generation study) (Ref. 1);
- (iii) Monitoring data confirm the bioaccumulation and biomagnification of PFOS in both terrestrial and marine mammals (Ref. 4);

There is sufficient evidence that PFOS meets the bioaccumulation criterion;

(d) Potential for long-range environmental transport:

- (i) and (ii) Extensive monitoring data, including at sites remote from known sources, show that long-range environmental transport has occurred (Ref. 1);
- (iii) The estimated half-life in air is 114 days (Ref. 4);

There is sufficient evidence that PFOS meets the criterion on potential for long-range environmental transport;

(g) Adverse effects:

- (i) No evidence provided;
- (ii) PFOS has been shown to cause developmental effects in mammals at low levels. It is also toxic to aquatic organisms (Ref. 4);

There is sufficient evidence that PFOS meets the adverse effects screening criterion.

C. Conclusion

4. The Committee concluded that PFOS meets the screening criteria specified in Annex D.

References

1. *Cooperation on Existing Chemicals – Hazard Assessment of Perfluorooctane Sulfonate (PFOS) and its Salts*. OECD. Paris. 2002.
2. UNEP/POPS/POPRC.1/9.
3. Kannan, K., Tao L., Sinclair, E., Patsva, S.D., Jude, D.J., Giesly, J.P., *Archives of Environmental Contamination Toxicology* 48(4), 559–566. 2005.
4. *Environmental Risk Evaluation: Perfluorooctane Sulfonate (PFOS)*. United Kingdom Environment Agency. London. 2004.

Annex II

Standard workplan for the preparation of a draft risk profile

Weeks	Date	Activity
1	18 Nov. 2005	Secretariat distributes request for information specified in Annex E (with proposal and evaluation) to Parties and observers
11	27 Jan. 2006	Deadline for submissions of information to the Secretariat from Parties and observers
8	27 Jan–24 March 2006	Drafter prepares working draft risk profile
5	24 March–28 April 2006	Ad hoc working group considers working draft risk profile and prepares a first draft risk profile for comments
1	9 May 2006	Secretariat distributes draft risk profile requesting comments from POPRC, Parties and observers
5	16 June 2006	Deadline for submission of comments on the first draft risk profile to the Secretariat from POPRC, Parties and observers
6	16 June–28 July 2006	Ad hoc working group considers comments and prepares a second draft risk profile
1	4 Aug. 2006	Secretariat submits draft risk profile to conference services for editing and translation
7	4 Aug. – 25 Sep. 2006	Editing and translation
0	25 Sep. 2006	Secretariat distributes final draft risk profile in languages
6	6–10 Nov. 2006	POPRC-2

Definitions, roles and responsibilities

1. The term “drafter” is applied to the person designated by the Committee to prepare a working draft risk profile for consideration by the ad hoc working group. The drafter could be the proponent of the chemical, but not necessarily so.
2. An ad hoc working group is established by the Committee to review a working draft risk profile and to prepare the draft risk profile. The Committee agreed that the chair of any given group could declare that group closed and thereby convert it into a drafting group (See paragraph 80 of the present report).

Annex III

Definitions of bioconcentration, bioaccumulation and biomagnification

In the context of providing interpretative guidance to the work of the Review Committee, the following definitions are proposed for the terms bioconcentration, bioaccumulation and biomagnification:

Bioconcentration is the process by which the chemical enters an aquatic organism and/or is adsorbed on to it as a result of exposure to the chemical in water, but does not include uptake in the diet. Bioconcentration refers to a condition usually achieved under laboratory conditions where the chemical is taken up directly from the water.

Bioconcentration is described by a bioconcentration factor (BCF), ideally under steady state conditions: $BCF = C_B/C_w$, where C_B is the concentration of the substance in the whole aquatic organisms, expressed as a whole body fresh weight value, and C_w is the concentration of the substance in water.

Bioaccumulation is the process by which the chemical enters an aquatic or terrestrial organism as a result of chemical uptake through all possible routes of exposure (e.g., dietary absorption, dermal absorption, respiratory uptake). Bioaccumulation is normally measured in field situations or under complex experimental conditions.

Bioaccumulation in aquatic organisms can be expressed in the form of a bioaccumulation factor (BAF), which is the ratio of the chemical concentration in the organism (C_B), expressed as a whole body fresh weight value, to that in water, ideally under steady state conditions (C_w): $BAF = C_B/C_w$.

Biomagnification is the process by which chemical concentrations increase with trophic level in a food chain. For organic substances, concentrations are normally expressed on a lipid normalized basis. Biomagnification results from the trophic level transfer of a chemical through the diet from a lower to a higher trophic level.

Given the great variability in approaches to calculating the biomagnification factor (BMF), the potential for biomagnification should be used instead of BMF for the evaluation of the bioaccumulation criterion. If a biomagnification potential is identified, it should be considered as a specific concern in the evaluation of criteria 1 (c) (ii) and (iii).

Annex IV

Risk profile outline

Executive summary

1. Introduction

- 1.1 Chemical identity of the proposed substance
 - Mention which Party has made the proposal and when it was made
 - Spell out the specific chemical identity and particular considerations related to that identity
- 1.2 Conclusion of the Review Committee regarding Annex D information
 - “The Committee has evaluated Annex D information (add reference to the meeting and the decision) and has concluded that [...]”
- 1.3 Data sources
 - Short overview of the data sources provided by the proposing Party or used by the Committee in Annex D screening
 - Short overview of data submitted by Parties and observers (NB: a more elaborated summary of the submissions may be provided as a separate POPRC/INF document)
 - Information on availability of national and international assessment reports;
- 1.4 Status of the chemical under international conventions

2. Summary information relevant to the risk profile

- 2.1 Sources
 - Production, trade, stockpiles
 - Uses
 - Releases to the environment
- 2.2 Environmental fate
 - Further elaboration of information referred to in Annex D, paragraphs (b)-(d), based on all relevant and available information
 - Available monitoring data and data on levels of exposure must be integrated under the subheading or alternatively dealt with under separate headings.
 - Could be divided into the following categories:
 - 2.2.1 Persistence
 - 2.2.2 Bioaccumulation
 - 2.2.3 Potential for long-range environmental transport
- 2.3 Exposure
 - Summary of relevant information concerning exposure in local areas (both near the source and in remote areas)
 - Summary of relevant information concerning exposure as a result of long-range environmental transport
 - Information on bioavailability
- 2.4 Hazard assessment for endpoints of concern
 - Further elaboration of information referred to in Annex D, paragraph (e); based on all relevant available information

- Monitoring data on effects included

3. Synthesis of information

- Synthesis of information relevant to the risk profile, in the form of a risk characterization¹, with emphasis on information that leads to the conclusive statement

4. Concluding statement

- Is the chemical likely, as a result of long-range environmental transport, to cause significant adverse effects on human health or the environment, such that global action is warranted?

References to be provided

Note: No annexes; all other data to be provided as POPRC/INF documents.

Target size: not longer than 20 pages.

¹ See annex V to the present report.

Annex V

Proposal on synthesis of risk characterization by some experts

This synthesis will include the integration of information on hazard, exposure and dose responses, including monitoring data, incidents and case studies, to provide an evaluation of the potential that any of the identified adverse effects may occur, including the uncertainty associated with the estimation.

This integration can be carried out using different alternatives which can be combined in a weight-of-evidence approach. The alternatives include, among others, the comparison of toxicity and ecotoxicity data with detected or predicted levels of the chemical resulting or anticipated from its long-range environmental transport, evidence of effects on human health or the environment in remote areas, or concern on potential effects on humans or the environment (particularly on the higher levels of the trophic chain) based on the assessment of the reported trends in environmental concentrations or potential for significant increases in production or use at the worldwide level.

Annex VI

Composition of intersessional working groups

Working group on chlordecone

Ms. Sultan Al-Easa (Chair), Qatar	Mr. Holoubek, Czech Republic
Ms. Ylä-Mononen (drafter), designated by the United Kingdom	Mr. Kitano, Japan
Ms. Aleksandryan, Armenia	Ms. Bouqartacha, Morocco
Mr. Chenier, Canada	Ms. Fabjan, Slovenia
Mr. Abderaman, Chad	Mr. Tarazona, Spain
	Ms. Alvarez, Uruguay

Observer members

Ms. Tissier, France	Mr. Dada, Nigeria
Ms. Marino, United States of America	Ms. Patton, Commonweal – IPEN
Mr. Juergensen, Canada	Ms. Lloyd-Smith, National Toxics Network
Ms. Niemirycz, Poland	Mr. Wickens, National Toxics Network
Mr. Toda, Japan	Mr. DiGangi, Environment Health Fund

Working group on hexabromobiphenyl

Mr. Kitano (Chair), Japan	Mr. Mohammed, Ethiopia
Ms. Ylä-Mononen (drafter), designated by the United Kingdom	Mr. Yadallee, Mauritius
Mr. Chenier, Canada	Ms. Fabjan, Slovenia
	Mr. Tarazona, Spain

Observer members

Mr. Wickens, National Toxics Network – IPEN	Ms. Patton, Commonweal – IPEN
Ms. Niemirycz, Poland	Ms. Lloyd-Smith, National Toxics Network
Mr. Takashi, Japan	Mr. DiGangi, Environment Health Fund

Working group on lindane

Mr. Bouwman (Chair), South Africa	Ms. Zariff, Fiji
Mr. Yarto (drafter), Mexico	Mr. Arndt, Germany
Ms. Aleksandryan, Armenia	Mr. Kitano, Japan
Ms. De Araujo Maximiano, Brazil	Ms. Bouqartacha, Morocco
Mr. Ouedraogo, Burkina Faso	Ms. Skaare, Norway
Mr. Chenier, Canada	Mr. Sabularse, Philippines
Mr. Abderaman, Chad	Mr. Yormah, Sierra Leone
Mr. Hu, China	Mr. Tarazona, Spain
Mr. Kouadio, Côte d'Ivoire	Mr. Wahlström, Sweden
Mr. Holoubek, Czech Republic	Mr. Rajkumar, Trinidad and Tobago
	Ms. Alvarez, Uruguay

Observer members

Ms. Tissier, France	Ms. Susan Marino, United States of America
Ms. Zhou, China	Ms. Miller, Alaska Community Action on Toxics
Ms. Niemirycz, Poland	Mr. Quijano, Pesticide Action Plan Philippines – IPEN
Mr. Toda, Japan	Ms. Patton, Commonweal – IPEN
Ms. Karpova, Russian Federation	Ms. Lloyd-Smith, National Toxics Network
Mr. Juergensen, Canada	

Mr. Wickens, National Toxics Network
Mr. DiGangi, Environment Health
Fund

Mr. Trewhitt, CropLife International

Working group on PFOS

Mr. Chenier (Chair), Canada
Mr. Wahlström (drafter), Sweden
Ms. De Araujo Maximiano, Brazil
Mr. Hu, China

Mr. Arndt, Germany
Mr. Kitano, Japan
Mr. Tarazona, Spain
Mr. Al-Shekeil, Yemen

Observer members

Ms. Tissier, France
Mr. Herrmann, Germany
Mr. Seppälä, Finland
Ms. Susan Marino, United States of
America
Ms. Vasileva, Bulgaria
Ms. Niemiryecz, Poland
Mr. Takashi, Japan

Mr. Becher, Norway
Ms. Patton, Commonweal – IPEN
Ms. Shibatsuji, WHO
Ms. Lloyd-Smith, National Toxics Network
Mr. Wickens, National Toxics Network
Mr. DiGangi, Environment Health Fund
Ms. Li, WWF
Mr. Santoro, American Chemistry Council

Working group on pentabromodiphenyl ether

Mr. Rae (Chair), Australia
Ms. Skaare (drafter), Norway
Mr. Chenier, Canada
Mr. Holoubek, Czech Republic
Mr. Kitano, Japan
Mr. Kaddourah, Jordan

Mr. Yarto, Mexico
Mr. Sabularse, Philippines
Mr. Bouwman, South Africa
Mr. Wahlström, Sweden
Mr. Boon-Long, Thailand
Mr. Rajkumar, Trinidad and Tobago

Observer members

Mr. Seppälä, Finland
Ms. Niemiryecz, Poland
Mr. Takashi, Japan
Ms. Susan Marino, United States of
America
Ms. Vasileva, Bulgaria
Mr. Becher, Norway

Ms. Shibatsuji, WHO
Ms. Lloyd-Smith, National Toxics Network
Mr. Wickens, National Toxics Network
Mr. DiGangi, Environment Health Fund
Ms. Patton, Commonweal – IPEN
Ms. Li, WWF
Mr. Simon, ICCA/WCC

Working group on confidentiality and Annex F

Mr. Cueva (Chair), Ecuador
Ms. de Araujo Maximiano, Brazil
Mr. Ouedraogo, Burkina Faso
Mr. Chenier, Canada
Mr. Abderaman, Chad
Mr. Kouadio, Côte d'Ivoire
Ms. Zariff, Fiji
Mr. Arndt, Germany
Mr. Kaddourah, Jordan

Mr. Yadallee, Mauritius
Ms. Bouqartacha, Morocco
Mr. Sabularse, Philippines
Mr. Yormah (Annex F), Sierra Leone
Mr. Bouwman, South Africa
Mr. Wahlström, Sweden
Ms. Ylä-Mononen, designated by the United Kingdom
Ms. Alvarez, Uruguay
Mr. Al-Shekeil, Yemen

Observer members

Mr. Herrmann, Germany
Ms. Susan Marino, United States of
America
Mr. Dada, Nigeria
Ms. Niemirycz, Poland
Mr. Toda, Japan
Ms. Karpova, Russian Federation
Mr. Wallace, Canada
Mr. Eeles, Australia
Mr. Quijano, Pesticide Action Plan
Philippines – IPEN
Ms. Shibatsuji, WHO

Ms. Lloyd-Smith, National Toxics
Network
Mr. Wickens, National Toxics Network
Mr. DiGangi, Environment Health
Fund
Ms. Patton, Commonweal – IPEN
Mr. Li, WWF
Mr. Jones, World Chlorine Council
Mr. Dietz, CropLife International
Mr. van Wijk, World Chlorine Council
Mr. Simon, ICCA/WC

Annex VII

List of documents

Agenda item	Subject	Document title	Document symbol
2 (b)	Adoption of the agenda	Provisional agenda	UNEP/POPS/POPRC.1/1
2 (c)	Organization of work	Annotated provisional agenda	UNEP/POPS/POPRC.1/1/Add.1
		Scenario note for the first meeting of the Persistent Organic Pollutants Review Committee	UNEP/POPS/POPRC.1/INF/1
		Revised tentative schedule for the week	UNEP/POPS/POPRC.1/INF/2/Rev.1
3	Review of the role and mandate of the POPS Review Committee	Procedure for listing chemicals in Annexes A, B and C of the Convention	UNEP/POPS/POPRC.1/INF/3
4	Operational procedures	Confidentiality arrangements	UNEP/POPS/POPRC.1/2
		Confidentiality procedures and arrangements under selected international agreements and forums	UNEP/POPS/POPRC.1/INF/13
		Criteria for selection of experts from the roster	UNEP/POPS/POPRC.1/3
		Submission of information specified in Annex E	UNEP/POPS/POPRC.1/4
		Possible elements of workplans for chemicals being considered for inclusion in Annexes A, B and C	UNEP/POPS/POPRC.1/INF/11
		Verification process by the Secretariat	UNEP/POPS/POPRC.1/INF/4
5	Consideration of chemicals proposed for inclusion in Annexes A, B and C of the Convention	Status of chemicals under consideration in other international forums	UNEP/POPS/POPRC.1/INF/10
5 (a)	Pentabromodiphenyl ether	Pentabromodiphenyl ether proposal – summary	UNEP/POPS/POPRC.1/5
		Pentabromodiphenyl ether proposal – submission	UNEP/POPS/POPRC.1/INF/5
5 (b)	Chlordecone	Chlordecone proposal – summary	UNEP/POPS/POPRC.1/6
		Chlordecone proposal – submission	UNEP/POPS/POPRC.1/INF/6
5 (c)	Hexabromobiphenyl	Hexabromobiphenyl proposal – summary	UNEP/POPS/POPRC.1/7
		Hexabromobiphenyl proposal – submission	UNEP/POPS/POPRC.1/INF/7
5 (d)	Lindane	Lindane proposal – summary	UNEP/POPS/POPRC.1/8
		Lindane proposal – submission	UNEP/POPS/POPRC.1/INF/8
5 (e)	Perfluorooctane sulfonate	Perfluorooctane sulfonate proposal – summary	UNEP/POPS/POPRC.1/9
		Perfluorooctane sulfonate proposal - submission	UNEP/POPS/POPRC.1/INF/9
		Designated members of the Persistent Organic Pollutants Review Committee	UNEP/POPS/POPRC.1/INF/12