

SUMMARY OF THE TWELFTH MEETING OF THE PERSISTENT ORGANIC POLLUTANTS REVIEW COMMITTEE: 19-23 SEPTEMBER 2016

The twelfth meeting of the Persistent Organic Pollutants Review Committee (POPRC-12) to the Stockholm Convention on Persistent Organic Pollutants took place from 19-23 September 2016 in Rome, Italy. In total, over 130 participants attended the meeting, including all of the 31 Committee members, 57 government observers, 40 representatives of non-governmental organizations, and four representatives of intergovernmental organizations.

POPRC-12 adopted six decisions, including on short-chain chlorinated paraffins (SCCPs); dicofol; pentadecafluorooctanoic acid (PFOA), its salts and PFOA-related compounds; hexachlorobutadiene (HCBd); decabromodiphenyl ether (decaBDE); and guidance on alternatives to perfluorooctane sulfonic acid (PFOS) and its related chemicals. The Committee established intersessional working groups on dicofol and PFOA, its salts and PFOA-related compounds.

In addition to adopting the risk management evaluation for SCCPs, which had been under review by the POPRC for ten years, the POPRC progressed on its technical issues, engaging new stakeholders in the process of reviewing chemicals for possible inclusion in the Convention and contributing to work related to implementation of its past recommendations.

A BRIEF HISTORY OF THE STOCKHOLM CONVENTION AND THE POPS REVIEW COMMITTEE

During the 1960s and 1970s, the use of chemicals and pesticides in industry and agriculture increased dramatically. In particular, a category of chemicals known as persistent organic pollutants (POPs) attracted international attention due to a growing body of scientific evidence indicating that exposure to very low doses of POPs can lead to cancer, damage to the central and peripheral nervous systems, diseases of the immune system, reproductive disorders and interference with normal infant and child development. POPs are chemical substances that persist in the environment, bioaccumulate in living organisms, and can have adverse effects on human health and the environment. With further evidence of the long-range environmental transport (LRET) of these substances to regions where they have never been used or produced, and the consequent threats they pose to the global environment, the international community called for urgent global action to reduce and eliminate their release into the environment.

The negotiations for the Stockholm Convention were launched by the United Nations Environment Programme's Governing Council in February 1997. The Stockholm Convention entered into force on 17 May 2004 and currently has 180 parties.

Key elements of the treaty include the provision of new and additional financial resources by developed countries and obligations for all parties to eliminate production and use of intentionally produced POPs, eliminate unintentionally produced POPs where feasible, and manage and dispose of POPs wastes in an environmentally-sound manner. Precaution is cited throughout the Convention, with specific references in the preamble, the objective, and the provisions on identifying new POPs. The Convention can list chemicals in three annexes: Annex A contains chemicals to be eliminated; Annex B contains chemicals to be restricted; and Annex C calls for the minimization of unintentional releases of listed chemicals. When adopted in 2001, 12 POPs were listed in these annexes. These POPs included 1) pesticides: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, mirex and toxaphene; 2) industrial chemicals: hexachlorobenzene and polychlorinated biphenyls (PCBs); and 3) unintentionally produced POPs: dioxins and furans.

The Stockholm Convention includes the provisions for a procedure to identify and list additional POPs. At the first meeting of the Conference of the Parties (COP-1), held in Punta del Este, Uruguay, from 2-6 May 2005, the POPs Review Committee

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(POPRC) was established to consider additional candidates nominated for listing under the Convention.

The Committee is comprised of 31 experts nominated by parties from the five United Nations regional groups and reviews nominated chemicals in three stages. The Committee first determines whether the substance fulfills the screening criteria detailed in Annex D of the Convention, relating to the chemical's persistence, bioaccumulation, potential for LRET, and adverse effects on human health or the environment. If a substance is deemed to fulfill these requirements, the Committee then drafts a risk profile according to Annex E to evaluate whether the substance is likely, as a result of LRET, to lead to significant adverse human health and/or environmental effects and therefore warrants global action. Finally, if the POPRC finds that global action is warranted, it develops a risk management evaluation according to Annex F, reflecting socio-economic considerations associated with possible control measures. Based on this, the POPRC decides whether to recommend that the COP list the substance under Annex A, B and/or C to the Convention. The POPRC has met annually since its establishment. The first eight meetings of the POPRC were held in Geneva, Switzerland.

POPRC-1 to POPRC-3: The first, second and third meetings of the POPRC met between 2005 and 2007. During this time, the POPRC approved risk profiles and risk management evaluations, and recommended that COP-4 consider listing the following POPs under Annexes A, B, and/or C: lindane; chlordecone; hexabromobiphenyl (HBB); commercial pentabromodiphenyl ether (c-pentaBDE); and PFOS, its salts, and perfluorooctane sulfonyl fluoride (PFOSF). At POPRC-2, the Committee agreed to draft a draft risk profile for short-chain chlorinated paraffins (SCCPs). At POPRC-3, risk profiles were approved for: c-pentaBDE; pentachlorobenzene (PeCB); alpha hexachlorocyclohexane (alphaHCH); and beta hexachlorocyclohexane (betaHCH). The Committee decided that a proposal by the European Community to consider endosulfan for inclusion in Annexes A, B, and/or C would be considered at POPRC-4.

POPRC-4: This meeting convened from 13-17 October 2008. POPRC-4 considered several operational issues, including: conflict-of-interest procedures; toxic interactions between POPs; and activities undertaken for effective participation of parties in the POPRC's work. The Committee approved the risk management evaluations of four chemicals, and recommended that COP-4 consider listing under Annexes A, B, and/or C: commercial octabromodiphenyl ether (c-octaBDE), PeCB, alphaHCH and betaHCH. A draft risk profile for SCCPs was discussed and the Committee agreed to forward it to POPRC-5. POPRC-4 also evaluated a proposal to list endosulfan under the Convention and agreed, by vote, that it met the Annex D criteria and that a draft risk profile should be prepared for consideration by POPRC-5. POPRC-4 also began an exchange of views on a proposal to list hexabromocyclododecane (HBCD).

COP-4: This meeting was held from 4-8 May 2009 in Geneva, Switzerland. Parties adopted 33 decisions on a variety of topics, including the listing of nine new substances under Annexes A, B, and/or C of the Convention: c-pentaBDE; chlordecone; HBB; alphaHCH; betaHCH; lindane; c-octaBDE; PeCB; and PFOS, its salts and PFOSF.

POPRC-5: This meeting convened from 12-16 October 2009 and addressed operational issues, including: work programmes on new POPs; substitutions and alternatives; toxicological interactions; and activities undertaken for effective participation in the POPRC's work. POPRC-5 agreed that HBCD meets the Annex D criteria for listing and that a draft risk profile should

be prepared. Draft risk profiles for endosulfan and SCCPs were considered. SCCPs were kept in the Annex E phase for further consideration at POPRC-6 and the Committee, through a vote, decided to move endosulfan to the Annex F phase, while inviting parties to submit additional information on adverse effects on human health.

POPRC-6: This meeting was held from 11-15 October 2010 and addressed operational issues, including: support for effective participation in the POPRC's work; work programmes on new POPs; and intersessional work on toxic interactions. POPRC-6 adopted the risk profile for HBCD and established an intersessional working group to prepare a draft risk management evaluation. The POPRC also agreed, by a vote, to adopt the risk management evaluation for endosulfan and recommend listing the substance in Annex A with exemptions. The Committee considered a revised draft risk profile on SCCPs, and agreed to convene an intersessional working group to revise the draft risk profile on the basis of an intersessional discussion of the application of the Annex E criteria to SCCPs and of information arising from a proposed study on chlorinated paraffins by the intersessional working group on toxic interactions. The Committee agreed to consider the revised draft risk profile at POPRC-8.

COP-5: This meeting convened from 25-29 April 2011 in Geneva, Switzerland. Parties adopted over 30 decisions on, *inter alia*: listing technical endosulfan and its isomers in Annex A of the Convention with exemptions for specified crop-pest complexes. COP-5 also requested the POPRC to: assess alternatives to endosulfan; develop terms of reference for a technical paper on the identification and assessment of alternatives to the use of PFOS in open applications; and assess alternatives to DDT.

POPRC-7: This meeting was held from 10-14 October 2011 and addressed several issues, including: advancing chlorinated naphthalenes (CNs) and hexachlorobutadiene (HCBd) to the risk profile stage; recommending that parties consider listing HBCD in Annexes A, B, and/or C of the Convention; effective participation in the Committee's work; assessment of alternatives to PFOS in open applications, DDT, and endosulfan; and the impact of climate change on POPs.

POPRC-8: This meeting convened from 15-19 October 2012 and adopted 12 decisions, including on: advancing pentachlorophenol (PCP), its salts and esters to the risk profile stage; advancing CNs and HCBd to the risk management evaluation stage; and amending POPRC-7's decision on HBCD to recommend that parties consider listing it in Annex A with specific exemptions.

COP-6: This meeting convened from 28 April - 10 May 2013 in Geneva, Switzerland, in a joint meeting with COP-11 of the Basel Convention, COP-6 of the Rotterdam Convention, and the second simultaneous extraordinary meetings of the COPs to the three conventions (ExCOPs-2). The COP, *inter alia*: decided to list HBCD in Annex A with specific exemptions for production and use in expanded and extruded polystyrene in buildings.

POPRC-9: Convening from 14-18 October 2013 in Rome, Italy, POPRC-9 adopted nine decisions, including on: the commercial mixture of decabromodiphenyl ether (c-decaBDE); PCP, its salts and esters; CNs; HCBd; the approach to the evaluation of chemicals in accordance with Annex E; guidance on alternatives to PFOS, its salts, PFOSF and their related chemicals; and the process for evaluation of PFOS, its salts and PFOSF for acceptable uses.

POPRC-10: This meeting was held from 27-31 October 2014 in Rome, Italy. The Committee adopted decisions including, *inter alia*: that dicofol meets the Annex D criteria; that c-decaBDE should move to the risk management evaluation stage; that a recommendation should be made to COP-7 for PCP, its salts and esters to be listed in Annex A to the Convention with specific exemptions for the production and use of PCP for utility poles and cross-arms. The Committee also adopted a decision on alternatives to PFOS, its salts and PFOA.

COP-7: Convened as part of a back-to-back meeting with COP-7 of the Rotterdam Convention and COP-12 of the Basel Convention from 4-15 May 2015 in Geneva, Switzerland, COP-7 agreed to list HCBd in Annex A and requested the POPRC to further evaluate HCBd on the basis of the newly available information in relation to its listing in Annex C and to make a recommendation to COP-8. COP-7 agreed to list polychlorinated naphthalenes (PCNs) in Annex A, with a specific exemption for production of those chemicals used as intermediates in production of polyfluorinated naphthalenes, and in Annex C. COP-7 also agreed, by a vote, to list PCP and its salts and esters in Annex A with specific exemptions for the production and use of PCP for utility poles and crossarms.

POPRC-11: This meeting was held from 19-23 October 2015 in Rome, Italy. The Committee adopted eight decisions, including the draft risk profile of SCCPs, which had been under review by the POPRC for nine years. The POPRC also decided, *inter alia*, that PFOA, its salts and PFOA-related compounds meet the Annex D screening criteria, and adopted the draft risk management evaluation on decabDE. The Committee deferred its decision on a draft risk profile of dicofol to POPRC-12.

POPRC-12 REPORT

Following a morning of pre-meetings for POPRC members and observers, Chair Estefânia Gastaldello Moreira (Brazil), opened the twelfth meeting of the Persistent Organic Pollutants Review Committee (POPRC) on Monday afternoon, 19 September 2016. Kerstin Stendahl, Deputy Executive Secretary of the Basel, Rotterdam and Stockholm Conventions, welcomed participants and underscored that the POPRC's consideration of chemicals on the basis of all available scientific and technical information was essential to enable the COP to take informed decisions.

Chair Gastaldello Moreira introduced the provisional agenda and organization of work (UNEP/POPS/POPRC.12/1, INF/1, INF/2 and 1/Add.1), which the Committee adopted.

ROTATION OF MEMBERSHIP

On Monday, the Secretariat introduced the rotation of membership (UNEP/POPS/POPRC.12/INF/3). POPRC-12 confirmed the election of Zaigham Abbas (Pakistan) as Vice Chair and Rapporteur and took note of the rotation of membership.

The current members of the POPRC are: Austria, Australia, Belarus, Brazil, Canada, China, Czech Republic, Ecuador, Gabon, Indonesia, Iran, Jamaica, Japan, Kenya, Lesotho, Luxembourg, Mali, Mauritania, Nepal, Oman, Pakistan, Poland, Saint Vincent and the Grenadines, Senegal, Sri Lanka, Swaziland, Sweden, Switzerland, the Netherlands, Tunisia and Venezuela.

TECHNICAL WORK

CONSIDERATION OF DRAFT RISK PROFILES:

Dicofol: On Monday, the Secretariat introduced the draft risk profile and the related comments and responses (UNEP/POPS/POPRC.12/2 and UNEP/POPS/POPRC.12/INF/4). He recalled that the decision on the draft risk profile on dicofol was deferred to POPRC-12 to allow time for stakeholders to provide

additional information, which was subsequently considered by the intersessional working group.

Marcus Richards (Saint Vincent and the Grenadines), Chair of the intersessional working group, presented the draft risk profile, highlighting that the sections on persistence, adverse effects and LRET had been updated. On persistence, he noted that the two isomers of dicofol have different levels of persistence, with p,p'-dicofol being more persistent than o,p'-dicofol. On adverse effects, he reported that information on possible links to autism spectrum disorders had been added. On LRET, he reported on further discussions around the use of DDT isomers as a tracer for the presence of dicofol far from points of its use, and that there were observations of the presence of DDT as a contaminant of dicofol as well as cases where DDT was detected that indicated that dicofol was not the source. Richards reported that the group had concluded that dicofol is likely, as a result of its LRET, to lead to significant adverse human health and environmental effects such that global action is warranted.

China asked why the evaluation on dicofol's persistence was based on studies of water with a pH of 5. Emphasizing that China has stopped producing dicofol, he expressed concern that the draft report looked more like an evaluation against the criteria of Annex D than Annex E and lacked evidence of LRET.

Indonesia noted the need to focus on new information provided during the intersessional period and suggested further discussion of dicofol's persistence in different environmental conditions and of the two different isomers (p,p'-dicofol and o,p'-dicofol).

Pakistan asked whether the report could provide more data and information about the countries that had phased out dicofol and called for further discussion of bracketed text on ecotoxicological effects.

Japan noted that the last sentence in paragraph 135 indicated that further mixture toxicity of dicofol and other organochlorine compounds had not been confirmed, and suggested rewording the conclusion in paragraph 151 on the toxicity of dicofol, DDT and other organochlorines to say "may be," instead of "is," a cause of concern for humans and wildlife.

Pesticide Action Network (PAN) stated that the draft clearly showed that dicofol meets all criteria in Annex E. She said although only one country is currently producing dicofol, the chemical is still used in many countries, and that global action is warranted.

An observer from India lamented that the draft did not incorporate comments submitted by his country. Noting India's "resistance" to this draft risk profile, he said the evaluation on LRET was not very specific. An observer from the Russian Federation supported the concerns highlighted by the observer from India and noted that the conclusion in paragraph 150 on persistence in soil contradicts information provided earlier in the draft.

A contact group, chaired by Richards, was established.

On Tuesday, Richards reported to plenary that the contact group had gone through the entire document and fulfilled its mandate to revise the draft, which was available as a conference room paper (CRP).

On Wednesday, the Secretariat introduced the revised draft risk profile (UNEP/POPS/POPRC.12/CRP.7) and draft decision (UNEP/POPS/POPRC.12/CRP.6). She also introduced a revised version of the draft risk profile (UNEP/POPS/POPRC.12/CRP.9), as submitted by contact group Chair Richards after he had noticed that the previous version did not fully reflect the discussion of the contact group.

Iran supported the draft risk profile, given the new information added in the contact group.

An observer from India said that the waters and 80% of soil in India are neutral and that dicofol would not be persistent in these conditions. He underscored that India would ask for “an exemption.”

The Committee then adopted the draft risk profile, with the amendments outlined in CRP.9, and the draft decision.

Final Decision: In its decision (UNEP/POPS/POPRC.12/CRP.6), the POPRC:

- adopts the risk profile for dicofol;
- decides that dicofol is likely, as a result of its LRET, to lead to significant adverse human health and environmental effects such that global action is warranted;
- also decides to establish an intersessional working group to prepare a risk management evaluation that includes an analysis of possible control measures for dicofol in accordance with Annex F of the Convention; and
- invites parties and observers to submit information specified in Annex F to the Secretariat before 9 December 2016.

PFOA, its salts and PFOA-related compounds: On Monday afternoon, the Secretariat introduced the draft risk profile (UNEP/POPS/POPRC.12/3), additional information (UNEP/POPS/POPRC.12/INF/5), and comments and responses to the draft risk profile (UNEP/POPS/POPRC.12/INF/6 and INF/6/Add.1).

Rameshwar Adhikari (Nepal), Chair of the intersessional working group, presented the draft risk profile, concluding that, based on its high level of persistence, bioaccumulation, toxicity, widespread occurrence in environmental compartments, abundant presence in humans and remote areas, and slow elimination rate, PFOA, its salts and PFOA-related compounds are likely, as a result of LRET, to lead to adverse human health and environmental effects such that global action is warranted.

Philippe Grandjean, an invited expert from the University of Southern Denmark and Harvard University, delivered a presentation on the toxicological characteristics of PFOA, noting that it is a multi-organ toxicant that interferes with cholesterol metabolism. Grandjean highlighted evidence indicating that PFOA has “very strong endocrine disrupting properties” and interferes with lactation physiology in women, shortening the time they are able to breastfeed, and reduces the effectiveness of vaccines in children who have been exposed to PFOA via breastmilk.

China observed a difference between the diagram of the structural formula for PFOA and PFOA-related substances and the formula provided in the paragraph on chemical identity, noting that the latter indicates eight carbon molecules and the former includes only seven. Indonesia noted there is less data on branched PFOA. Australia, supported by Luxembourg, suggested updating the chemical identity information to the newest European Chemicals Agency report. Belarus suggested that the names of the substances to be controlled be included in the body of the draft risk profile, rather than in the appendix.

Switzerland drew attention to a CRP she had submitted, which presents a literature review on past and ongoing sources and emissions of PFOA, its salts and PFOA-related chemicals. Austria recalled the POPRC’s evaluation of PFOS as an example of the inclusion of precursors, and underscored the need to include PFOA-related chemicals, including both precursors and degradants, because of their significant market share. Australia further noted the importance of degradation of PFOA-related chemicals and informed members about a CRP he had submitted that concludes that fluorotelomer-based polymers are a source of fluorotelomer and perfluorinated compounds to the environment.

Pakistan and an observer from the Russian Federation suggested updates to the information on production, with the observer from the Russian Federation stating that they had conducted a survey and found no evidence of production.

Sweden reported that studies of otters in Sweden and seals in the Baltic Sea indicate an increasing trend of PFOA in the environment, which contradicts a statement in the draft risk profile that there is a decreasing trend.

The International POPs Elimination Network (IPEN) recounted several legal actions against companies related to PFOA and stated that industry was aware of, but did not disclose, the effects of PFOA. She urged the Committee to include the “full suite” of PFOA-related compounds, including fluorotelomer compounds.

An observer from South Africa stated that the rate of absorption is evidence of acute toxicity and an endocrine disrupting chemical. Highlighting the intergenerational effects of PFOA, she recalled that the POPRC is a “scientific committee whose mandate does not accommodate any economic or political interests.”

An observer from India emphasized the need for food security, stating that there is a lack of environmentally-friendly and technically-feasible alternatives.

An observer from China suggested that the Committee further review the degradation of PFOA, its salts and related compounds and said that the scope of PFOA-related compounds is not clearly defined and that work should continue. He further suggested clarification and work on whether LRET occurs through air or water, stating that the evidence for transport by water is unclear. An observer from the US cited recent regulatory actions on PFOA and welcomed the clarification that substances that degrade to PFOA are considered PFOA-related chemicals.

An observer from the Russian Federation highlighted some technical concerns regarding bioaccumulation and bioconcentration regarding degradation in water and its half-life in soil.

Noting that further discussions on identity, precursors, degradation and toxicity were required, Chair Gastaldello Moreira suggested a contact group be established. China requested further discussion in plenary and called for some of the questions raised to be answered in plenary. Luxembourg questioned the added value of a plenary discussion. Chair Gastaldello Moreira said that China’s concerns would be noted, and suggested that a contact group be established, to be chaired by Adhikari. The Committee agreed.

On Tuesday, contact group Chair Adhikari reported that the group had received constructive suggestions from participants on several issues raised in plenary, including chemical identity and LRET, and would meet again that day to revise the draft risk profile.

On Friday, contact group Chair Adhikari introduced the draft decision (UNEP/POPS/POPRC.12/CRP.10) and draft risk profile (UNEP/POPS/POPRC.12/CRP.11).

Austria suggested adding a reference to a recent study that found a positive association between these compounds and cancers of the testes and kidneys.

Emphasizing that PFOA deserves urgent attention, IPEN urged the POPRC to ensure a full and independent assessment of all alternatives, noting that many appear to be as toxic, persistent and bioaccumulative as PFOA itself.

An observer from the Russian Federation requested the Committee to remove references to his country as a producer of PFOA, noting this substance has never been produced in the Russian Federation’s territory. Luxembourg confirmed that all references to the Russian Federation as a producer had been

removed, but said that references to the Russian Federation as a user of PFOA were relevant and could not be taken out.

Indonesia suggested including references to isomers in paragraphs 157 and 159 of the draft risk profile and highlighted the importance of considering the monitoring capacity of developing countries.

The POPRC adopted both the risk profile as orally amended and the decision to advance PFOA, its salts and related compounds to the Annex F stage of review.

Final Decision: In its final decision (UNEP/POPS/POPRC.12/CRP.10), the POPRC:

- adopts the risk profile for PFOA, its salts, and PFOA-related compounds;
- decides that PFOA, its salts and PFOA-related compounds are likely as a result of their LRET to lead to significant adverse human health and environmental effects such that global action is warranted;
- also decides to establish an intersessional working group to prepare a risk management evaluation that includes an analysis of possible control measures for PFOA, its salts and PFOA-related compounds in accordance with Annex F to the Convention; and
- invites parties and observers to submit to the Secretariat the information specified in Annex F before 9 December 2016.

CONSIDERATION OF A DRAFT RISK MANAGEMENT EVALUATION: SCCPs: The Secretariat introduced the draft risk management evaluation (UNEP/POPS/POPRC.12/4), supporting information (UNEP/POPS/POPRC.12/INF/7), and comments and responses (INF/8).

Ousmane Sow (Senegal), Chair of the intersessional working group, presented the draft risk management evaluation, noting that alternatives are available for all uses of SCCPs and no party or observer had identified a use for which an exemption is needed. He indicated that the draft risk management evaluation proposed listing SCCPs in Annex A without specific exemptions, such that the Annex A listing could apply to products and articles that contain SCCPs in concentrations greater than 1% by weight for mixtures and greater than 0.15% by weight for articles. He said that an Annex C listing could also be considered for unintentional production of SCCPs in other chlorinated paraffin (CP) mixtures.

Citing a report from Norway indicating that air concentrations of SCCPs have decreased, China asked whether concentrations in remote areas have increased or decreased and stated that there may be increasing concentrations only at the local level, rather than globally. He also said that the report does not mention any alternatives available in developing countries and asked whether the substitution and abatement costs are a one-time or annual investment. Underscoring the lack of analytical facilities for data collection in many developing countries, Pakistan raised concerns about the costs of alternatives and requested further discussion.

Luxembourg, Austria, Belarus and an observer from Norway supported the draft risk management evaluation, calling for listing SCCPs in Annex A. Austria noted that some substitutes may be hazardous and need additional assessment. Belarus noted that the draft risk management evaluation mentioned decaBDE as an alternative and said it could be listed soon by the Convention.

Indonesia said it would be difficult to make a decision about a recommendation for listing in Annex C in the absence of information about socio-economic impacts and called for more information about the production of medium-chain chlorinated paraffins (MCCPs).

Canada responded to several of the previous questions, noting, *inter alia*, that the purpose of the draft risk management evaluation is to examine existing risk management measures

but one could speculate that a decrease in SCCPs in Arctic air concentrations could be related to such measures, environmental impacts or climate change. She noted the intersessional working group had conducted an exhaustive search for information on costs and encouraged participants to provide additional information. She also explained that the draft risk management evaluation would be updated to exclude any alternatives that are eventually listed but, in order to keep the document fact-based, would not exclude substances while they are under review.

Australia expressed concern about the chemical identity of SCCPs, noting that the original nomination gave just one CAS number and one definition. Noting that this could have implications for listing, he proposed using an alternative definition based on the US EPA 2009 Toxic Substances Control Act Action Plan for SCCPs.

The Netherlands expressed “strong support” for listing in Annex A and opposed listing in Annex C.

Kenya asked for clarification on disposal via open burning of products containing SCCPs.

An observer from India said his country would not be able to accept listing in Annex C, as India and other developing countries lack resources for monitoring releases of SCCPs. An observer from China emphasized that because SCCPs are intentionally produced, listing them in Annex C would be inappropriate. An observer from the Russian Federation said many of the alternatives to SCCPs are too expensive and called for further discussion.

The World Chlorine Council expressed concern about politicization of the POPRC’s review process, saying that industry’s only weapon is science, and called for further work on assessment of alternatives.

The Inuit Circumpolar Council noted that measurements of SCCPs in 2013 and 2014 found that concentrations in the Arctic had increased. Alaska Community Action on Toxics (ACAT) supported listing SCCPs in Annex A with no specific exemptions, and said MCCPs and long-chain chlorinated paraffins (LCCPs) should not be considered as alternatives.

China, *inter alia*: said that data indicate that China must implement control measures for SCCPs, but questioned whether SCCPs accumulate across international borders and far from their points of release; noted that all information on costs in the draft risk management evaluation refers to developed countries; and emphasized that managing the risks of SCCPs should not be a priority of the Convention if it will cost “a billion euros.”

Characterizing the discussion as being about economics rather than science, Gabon emphasized that this is an issue of precaution and health first and foremost.

Chair Gastaldello Moreira proposed, and the POPRC agreed, to establish a contact group on this issue to be chaired by Sow. Chair Gastaldello Moreira invited the group to focus on topics such as costs, alternatives and chemical identity, and asked them to avoid spending time on issues addressed in the risk profile adopted by POPRC-11.

On Thursday, contact group Chair Sow reported that the group had finalized both the draft risk management evaluation and draft decision on SCCPs.

On Friday, Chair Sow introduced the draft risk management evaluation (UNEP/POPS/POPRC.12/CRP.13) and the draft decision (UNEP/POPS/POPRC.12/CRP.12).

ACAT underlined that “new and accurate information” shows that production of SCCPs is increasing and exceeds that of any other POP. She highlighted the risks of contamination from SCCPs in articles and wastes and urged the Committee to recommend listing in Annex A without exemption.

Gabon asked if there was a need to address unintentional releases.

China noted that this chemical has been under review at POPRC for ten years and supported the draft decision, adding that the COP has a significant task to determine which exemptions will be included.

Iran asked if the Committee had to specify which specific exemptions it recommends. The Secretariat responded that Article 8.9 of the Convention specifies that the Committee should recommend listing of chemicals in Annexes A, B and/or C.

With that clarification, the POPRC adopted the risk management evaluation and related decision text.

Final Decision: In its decision (UNEP/POPS/POPRC.12/CRP.12), the POPRC adopts the risk management evaluation for SCCPs and decides to recommend to the COP that it consider listing SCCPs in Annex A to the Convention, including controls to limit the presence of SCCPs in other chlorinated paraffins mixtures, with or without specific exemptions.

CONSIDERATION OF RECOMMENDATIONS TO

THE COP: decaBDE: On Tuesday, the Secretariat introduced the relevant documents, including the additional information on decabromodiphenyl ether (commercial mixture, c-decaBDE) for the further defining of some critical spare parts in the automotive and aerospace industries and on the use in textiles in developing countries (UNEP/POPS/POPRC.12/5), the draft assessment of additional information (UNEP/POPS/POPRC.12/INF/9), the compilation of information on decaBDE (INF/10) and the comments and responses (INF/11).

Jack Holland (Australia), Co-Chair of the intersessional working group, noted that the group's mandate was to define specific exemptions for some critical spare parts, also to be defined, for the automotive and aerospace industries. He explained that POPRC-12's objective was to review the draft assessment and to consider strengthening its recommendation to the COP to list decaBDE in Annex A. Noting that the group received comments from four parties and six observers, Holland informed the Committee that, *inter alia*: in the automotive industry, more than 800 unique service part numbers may contain decaBDE; no detailed information was submitted by the aerospace industry; and no new information was received indicating use of decaBDE in textiles produced by small- and medium-size enterprises.

Canada noted it had made available in a CRP additional information from the Canadian Motor Vehicle Association.

Japan expressed interest in discussing recycling of products containing decaBDE, noting that his colleagues could provide relevant monitoring data.

Luxembourg called for time-bound exemptions that take into account the lifespan of relevant spare parts. Belarus said the information provided is sufficient to guide the Committee, noting that exemptions for the aerospace industry, military vehicles, and recycling should not be granted.

Australia underscored that the recycling issue is beyond the mandate of the intersessional working group and should not be reopened. On the time limit of an exemption, he noted the Convention allows for an exemption of five plus five years, and asked the Committee to consider any issues on decaBDE that may be raised at COP-8. He also reminded participants that the proposed exemption for military vehicles from the UK was different from the one proposed by the European automotive industry and had been withdrawn.

An observer from the Chinese Academy of Sciences said their research and experience showed that electronic waste re-assembly is a very complex and difficult process and noted that exemptions

for decaBDE might be "unfair" for developing countries like China, as they could cause more electronic waste to be exported from developed countries.

Noting that some critical spare parts in the exemptions requested by the automotive industry were poorly defined, IPEN called the potential number of exemptions "huge," potentially covering more than 800 spare parts. He also highlighted Boeing's plan to phase out spare parts containing decaBDE by 2018, and stated that the exemptions proposed by the automotive industry are not use-specific.

The European Automobile Manufacturers' Association underscored that the automotive industry seeks exemptions only on the basis of technical needs and feasibility, and cited the technical impossibility of narrowing down exemptions because the parts vary from model to model. He also stated that the reference to 800 parts was incorrect, as "one application includes several parts."

Norway asked whether the UK had withdrawn all its comments or only those on military vehicles. The Secretariat responded that the UK withdrew its comments without specification.

The Netherlands supported listing decaBDE in Annex A and expressed concern about the proposed exemption. He recalled that the issue of recycling had been discussed last year and said it exceeded the scope of the Committee's work. On the aerospace and automotive industries, he asked whether all parties would need to register for exemptions.

The Secretariat explained that for most chemicals listed in Annex A, parties may register for specific exemptions as per Article 4 of the Convention (register of specific exemptions). She noted that for PCBs and hexa-, hepta-, tetra- and penta-BDEs, different procedures apply, as stated in Parts II, IV and V of Annex A.

A contact group was established to discuss exemptions on the aerospace and automotive parts, excluding the recycling issue, co-chaired by Holland and Caroline Wamai (Kenya).

On Thursday, contact group Chair Holland reported that the group's work on Wednesday had been complicated by a late submission from industry observers, but participants believed it was time to move from a contact to a drafting group. Chair Gastaldello Moreira confirmed that a drafting group would convene later in the morning.

On Friday, drafting group Chair Holland introduced the revised draft assessment of additional information on decaBDE (UNEP/POPS/POPRC.12/CRP.15) and the related draft decision (UNEP/POPS/POPRC.12/CRP.14). He highlighted the withdrawal of the late submission from the UK and talked through the changes to the document, including, *inter alia*, changes to paragraphs 55 and 57 that sought to incorporate a request by the Canadian Vehicle Manufacturers' Association to include a wider definition of critical spare parts for the two main uses of decaBDE for automotive purposes.

Kenya suggested adding a reference to labeling in the draft decision. Sweden expressed hesitation about including such a reference in the decision text, citing the POPRC's mandate to define critical spare parts. Poland stated that she had reservations about adding such a reference to the decision text.

The Netherlands expressed doubt about the practicality of labeling very small spare parts in cars.

Holland noted that the drafting group had discussed labeling extensively, and that some participants were strongly in favor while others had concerns about the difficulties of labeling parts that would "often not see the light of day."

Characterizing the decision text as "vague," IPEN suggested deleting the phrase "such as" and subsequent examples of critical

spare parts, and instead specifying the parts to be exempted. IPEN also called for the development of guidance on how to consider exemptions, including a standard form for those requesting exemptions to complete stating what exemption is being sought and why.

Lesotho, supported by Gabon, highlighted concerns about wastes being exported to developing countries and countries with economies in transition, noting that parts containing decaBDE could prolong the lifespan of cars and also pollution from decaBDE, and suggested including a reference to this in the draft decision or conclusion of the report. Kenya wondered if putting a reference only in the conclusion would effectively communicate these concerns. Lesotho suggested including text in the draft decision noting these concerns. Chair Gastaldello Moreira called for a 15-minute break and invited interested members to meet outside the plenary room to discuss how to move forward on this issue. When plenary resumed, the Secretariat noted the addition to the draft decision and conclusion of text stating “notes that the increasing waste burden in developing countries from older vehicles that continue to be serviced with spare parts that contain decaBDE is a concern.”

Gabon expressed support for this addition. The POPRC adopted the draft decision as amended.

Australia noted the difficulty of engaging industries that would be affected by this decision, noting that parts of the automotive industry were not aware of the implications of the POPRC’s work, and expressed disappointment that the aerospace industry was not represented at the meeting.

Final Decision: In its decision (UNEP/POPS/POPRC.12/CRP.14), the POPRC:

- adopts the addendum to the risk management evaluation for decabromodiphenyl ether (commercial mixture, c-decaBDE);
- decides, in accordance with paragraph 9 of Article 8 of the Convention, to recommend to the COP that it consider listing decabromodiphenyl ether (BDE-209) of c-decaBDE in Annex A to the Convention with specific exemptions for the automotive industry, with the production and use of c-decaBDE limited to parts for use in legacy vehicles, defined as vehicles that have ceased mass production, and with such parts falling in one or more of the following categories:
 - (a) Powertrain and under-hood applications such as battery mass wire, battery interconnection wire, mobile air-conditioning pipe, powertrains, exhaust manifold bushings, under-hood insulation, wiring and harness under hood (engine wiring, etc.), speed sensors, hoses, fan modules and knock sensors;
 - (b) Fuel system applications such as fuel hoses, fuel tanks and fuel tanks under body;
 - (c) Pyrotechnical devices and applications affected by pyrotechnical devices such as air bag ignition cables, seat covers/ fabrics (only if airbag relevant) and airbags (front and side);
- concludes that the information from the aerospace industry made available to the Committee does not allow the further defining of critical spare parts;
- also concludes that there is no apparent need for an exemption for textile production in small- and medium-size enterprises in developing countries; and
- notes that the increasing waste burden in developing countries from older vehicles that continue to be serviced with spare parts that contain decaBDE is a concern.

Unintentional releases of HCBd: On Tuesday, the Secretariat introduced new information in relation to the listing of HCBd in Annex C (UNEP/POPS/POPRC.12/6), the draft evaluation of the

information, compilation of information and related comments and responses (UNEP/POPS/POPRC.12/INF/12-14).

Hubert Binga (Gabon), Chair of the intersessional working group, recalled that COP-7 requested further evaluation of the evidence for a decision on listing HCBd in Annex C. He noted that the sources of unintentional production of HCBd include: as a byproduct in the manufacture of certain chlorinated hydrocarbons; as a byproduct of magnesium manufacturing through an electrolytic pathway; and as an emission from certain types of incineration where a source of chlorine is present. He explained that control methods include improved process control for chlorinated hydrocarbon manufacturing; best available techniques (BAT) to ensure high temperature incineration and control of exhaust gas; and alternative production methods for the manufacture of magnesium using the electrolytic pathway. He reported that the group had concluded that listing HCBd in Annex C is warranted.

China underscored the need to consider the risks of HCBd from unintentional releases to the environment and the associated costs, in order to provide a clearer risk management assessment. Indonesia noted that information on the costs of controlling HCBd in the chemical sector is not available and said that the information on the cost of abatement techniques compared to traditional methods is important. An observer from India stated that his country cannot accept listing HCBd in Annex C and, noting developing countries’ lack of resources for monitoring and managing unintentional releases, called for the full operationalization of the principle of common but differentiated responsibilities in the context of the Stockholm Convention.

Belarus, Austria, Sweden, Canada, Gabon and the Netherlands supported listing HCBd in Annex C.

IPEN emphasized that the characteristics of HCBd do not change whether they are intentionally or unintentionally produced.

Canada requested clarification on what is required from parties when a chemical is listed in Annex C, as compared to Annex A. The Secretariat referred to Article 5 (measures to reduce or eliminate releases from unintentional production), saying that parties are to update their action plans to include the chemical and sources of unintentional production and take implementation steps such as using BAT and best environmental practices (BEP).

Luxembourg called for the POPRC to take action on HCBd, emphasizing that the Committee’s mandate has been fulfilled and there was no reason to defer a recommendation to list HCBd in Annex C.

The POPRC established a Friends of the Chair group to discuss a path forward.

On Wednesday afternoon, Chair Gastaldello Moreira reported that informal consultations with China had yielded a new suggestion for consideration by the Committee. China said that the risk posed by HCBd from unintentional releases is relatively small and that there are many other POPs to take action on. He emphasized his agreement that HCBd is a POP, but expressed concern that listing too many chemicals in Annex C could “dilute our efforts on POPs.” He suggested, in line with a suggestion made in the SCCPs contact group, adding a note or extra information to the current Annex A listing that directs parties to consider taking measures to reduce unintentional releases of HCBd.

In response to Gabon and Luxembourg’s queries about whether this suggestion would fulfil the Committee’s mandate from the COP, the Secretariat clarified three aspects of the POPRC’s mandate on HCBd: to further evaluate new information in relation to Annex C, which she said is fulfilled by INF/12;

to compile further information, which she said is fulfilled by INF/13; and to make a recommendation for consideration by COP-8 on listing in Annex C, which she said would be fulfilled by a draft decision that was still to be completed. She said that a draft decision could include a recommendation along the lines of the suggestion by China.

Indonesia expressed support for the suggestion, citing the costs of control measures for some sources.

Belarus said that Annex C provides the appropriate mechanisms and provisions for controlling unintentional releases. Austria said that HCBd has many sources of unintentional production and was therefore different from SCCPs, noting that there was no mandate from the COP to assess the risks from unintentional production.

IPEN recalled that the POPRC had previously found that intentional production of HCBd had ended and that therefore most releases of HCBd are unintentional. He emphasized that HCBd should be listed in Annex C to avoid “ignoring” most HCBd releases.

An observer from the European Union (EU) noted that for some sources of unintentional production, such as the production of carbon tetrachloride, the technologies should already be covered by the BAT/BEP for dioxins and furans. He said that an Annex C listing would warrant an emissions inventory to identify sources, helping parties understand what they would need to do as part of their action plan.

An observer from India reiterated his country’s opposition to listing in Annex C and his call for the application of the principle of common but differentiated responsibilities within the context of the Stockholm Convention.

An observer from South Africa supported listing HCBd in both Annexes A and C. She further expressed concern that members were “gradually mixing” what issues should be discussed by POPRC and by the COP, stating that the POPRC is to discuss scientific matters and the COP should consider issues such as costs. Oman emphasized the need to avoid confusing the mandates of the POPRC and the COP and called on POPRC experts to focus on the scientific data.

An observer from China responded that unintentional releases from HCBd are less toxic than those of dioxins and furans and noted that some emission sources are not comparable to the sources of those chemicals. He further noted that there was little information on unintentional releases during the manufacture of magnesium.

China said that his view that the risks from HCBd emissions are not significant is a “very scientific assessment.”

Gabon called on the Committee to focus on whether HCBd could be included in Annex C, as instructed by the COP, and said the Committee could not put unintentional releases in Annex A.

Switzerland cited the listing of hexachlorobenzene (HCB) in Annex C as clear precedent for listing unintentional production of HCBd in Annex C.

On Thursday, the POPRC agreed to establish a drafting group on this issue, to be chaired by Binga. On Friday, Binga introduced the revised draft evaluation of new information in relation to listing HCBd in Annex C (UNEP/POPS/POPRC.12/CRP.17) and the draft decision (UNEP/POPS/POPRC.12/CRP.16).

IPEN expressed concern that the draft decision did not refer to the POPRC’s previous decision to list HCBd in Annex C, and restated that the POPRC previously found that all releases of HCBd are unintentional. He added costs are not considerable for waste incineration, which he cited as a major source of unintentional releases, because the control measures for dioxins and furans would also address HCBd.

An observer from Norway stated a preference for a clear recommendation to list HCBd in Annex C. She said that, based on the information in the evaluation, she was surprised that the POPRC did not make the recommendation that it previously had, and that cost considerations were given “so much weight” given that some abatement measures, such as for hexachlorobenzene, would be sufficient for removing HCBd.

Stating that developed countries cannot understand the challenges faced by developing countries, an observer from China supported the draft decision. An observer from South Africa expressed concern that the POPRC had not fulfilled its mandate to provide a recommendation to the COP on listing in Annex C. Underscoring that she is from a developing country, she said that cost considerations are for the COP to consider, not the POPRC. An observer from India said that, while the POPRC is a scientific body, it “cannot ignore reality,” and urged members to be more sensitive to the needs of countries such as India, stating that resorting to opting out is against the spirit of the Convention and not his preference.

The Netherlands recalled that Annex F criteria include addressing socio-economic considerations such as costs, including environmental and health costs, and suggested that these criteria apply in this case because the POPRC originally recommended listing HCBd in Annex C based on an Annex F evaluation. He suggested that waste incineration may not be a significant source of HCBd releases, noting that the draft evaluation does cite waste incineration as a major source, but the document later reports the total amounts of waste, not HCBd.

The POPRC then adopted the draft evaluation and decision.

Final Decision: In its final decision (UNEP/POPS/POPRC.12/CRP.16), the POPRC:

- recognizes that HCBd demonstrates the characteristics of a POP that by decision SC-7/12 the COP therefore listed the chemical in Annex A;
- concludes that there are unintentional releases of HCBd from the production of certain chlorinated hydrocarbons, the production of magnesium, incineration processes, and the production of polyvinyl chloride, ethylene dichloride and vinyl chloride monomer; and
- notes nonetheless that there are some concerns regarding the cost-benefit implications of measures to address the releases referred to in the preceding paragraph.

CONSOLIDATED GUIDANCE ON ALTERNATIVES TO PFOS AND ITS RELATED CHEMICALS: On Tuesday, the Secretariat introduced the guidance on alternatives to PFOS and its related chemicals (UNEP/POPS/POPRC.12/7), the draft consolidated guidance on alternatives (UNEP/POPS/POPRC.12/INF/15), and comments and responses (INF/16).

Martien Janssen (the Netherlands), Chair of the intersessional working group, outlined the changes made to the guidance in response to the comments received. He highlighted the example of the acceptable purpose of PFOS for use in insect baits to control leaf-cutting ants, for which Brazil and Viet Nam have registered. He reported that PFOS is used to manufacture sulfluramid, which becomes perfluorooctanesulfonamide (PFOSA), and said there is some data indicating that PFOSA can become PFOS. He reported that alternative approaches can include targeting the queen of the colony, reducing use, and using baits in a localized application. He noted differing views on the need to label products containing PFOS and comments that siloxanes are intermediates, not alternatives to the use of PFOS to control red imported fire ants and termites.

Noting a “lot of activity around” siloxanes, Luxembourg asked if there is a mechanism for updating the guidance. Sweden asked for clarification on the proposed action, which is to make use of the guidance. The Secretariat explained that the POPRC will first adopt the terms of reference for assessment of alternatives to PFOS and then prepare a report, and noted that the guidance will not be submitted to the COP.

Austria noted that using PFOS in a closed loop means that hardly any emissions occur.

Canada offered to share comments from her country’s Basel Convention expert on waste management.

IPEN expressed appreciation for the document’s consideration of labeling and strong recommendations to improve transparency, but lamented that “secrecy” around PFOS and related chemicals has limited knowledge of their pathways into the environment and humans.

PAN emphasized that use of sulfluramid is insufficiently controlled and unsustainable.

An observer from the US expressed strong support for streamlining the processes of work related to PFOS and emphasized that the criteria in the guidance give a false impression that alternatives have been determined by the POPRC to be non-POPs.

The Global Silicones Council expressed disappointment that data it submitted regarding siloxanes had not been incorporated into the revised document.

Emphasizing that the document is not an assessment or evaluation of PFOS or its alternatives, Janssen invited participants to submit comments to update the guidance.

The POPRC established a contact group to revise the draft consolidated guidance and a draft decision, to be chaired by Janssen. The group met on Thursday.

On Friday, Janssen introduced the draft consolidated guidance on PFOS alternatives (UNEP/POPS/POPRC.12/CRP.19) and draft decision (UNEP/POP/POPRC.12/CRP.18).

PAN welcomed the document and expressed concern about the widespread use of sulfluramid and the “unwillingness of countries to move away” from this substance. She noted use in the home and in areas without leaf-cutting ants, and welcomed the collection of information on sulfluramid and related releases of PFOS.

The POPRC then adopted the draft consolidated guidance and decision, with a minor editorial amendment.

The Secretariat informed members about the POPRC’s role in the upcoming process on the evaluation of the continued need for PFOS, its salts and PFOSF for the various acceptable purposes and specific exemptions. She stated that the evaluation is due to occur at COP-9 in 2019, and that the POPRC will be asked at its next meeting to prepare a terms of reference, including what information to ask from parties and observers, and what information to include in the draft assessment report.

Final Decision: In its decision (UNEP/POP/POPRC.12/CRP.18), the POPRC:

- endorses the consolidated guidance on alternatives to PFOS and its related chemicals, as amended at POPRC-12;
- requests the Secretariat to make the guidance available to parties and observers and submit it to COP-8;
- decides to make use of the information in the guidance when carrying out the assessment of alternatives to PFOS, its salts and PFOSF;
- notes the use of sulfluramid. Sulfluramid is the active ingredient of insect baits for the control of leaf-cutting ants from *Atta* spp. and *Acromyrmex* spp., is produced using PFOS, and may degrade to PFOS; and,

- recommends to the COP that it encourage parties and observers: to collect information on the production and use of sulfluramid and make that information available for possible future updates of the guidance on alternatives to PFOS and its related chemicals by the Committee; to implement local monitoring of releases of PFOS from the use of sulfluramid and make it available to the Secretariat for preparing the report for the evaluation of information on PFOS, its salts and PFOSF.

PROCESS FOR THE EVALUATION OF BROMINATED DIPHENYL ETHERS (BDEs):

The Secretariat introduced the process for the evaluation and review of BDEs (UNEP/POPS/POPRC.12/8) and the draft report on the evaluation and review of BDEs listed in Annex A (UNEP/POPS/POPRC.12/INF/17). She explained that beginning at COP-6 and every two years thereafter, the COP is to review progress toward the objective of the elimination of tetra-, penta-, hexa- and hepta-BDE and the continued need for specific exemptions for those BDEs. She reported that the Secretariat was asked by the COP to collect information from parties and to consult with stakeholders, including the POPRC. Chair Gastaldello Moreira reminded members that the Committee was asked to provide input and comments for the Secretariat to revise the draft report.

Belarus noted that more information is required, particularly on vehicles produced in recent years, and studies on a global or regional scale are needed. Stating that the potential for research in some developing countries can be limited, she suggested further projects in such areas.

Sweden suggested that the conclusions should include actions as well as suggestions for further studies and planning. She drew attention to a statement on the dilution of BDEs into articles that may make their management more difficult and reduce the attractiveness of plastic recycling as an option for enhanced resource recovery as particularly important, given the desirability of recycling and the need to ensure that the products are of a safe and known quality.

The Netherlands suggested that references to BDEs be replaced with “POPs-BDEs.” Sweden noted that this may not be possible in all cases as some studies do not specify the congeners. The Netherlands further expressed concern that there is still not an overview of POPs BDEs throughout their lifecycle and suggested that the Secretariat ask for more information on electronics, given that there may not be different national standards for flammability requirements.

Australia asked that a reference to electronic and electrical equipment waste in Australia from the Global E-waste Monitor be removed, as the methodology used for gathering the data is not provided and cannot be verified.

IPEN drew attention to a statement that the largest challenge in developing countries relates to waste and recycling, which he said has particular importance for decaBDE. He recalled a decision at POPRC-6 that recommended parties generate and collect information on polybrominated dioxins and furans and recommended assessment of exposures of staff working in facilities where articles and wastes potentially containing BDEs are stored, sorted, treated, recycled, recovered or disposed of and, with an observer from Norway, suggested that these be added to the draft report.

Noting different practices among developed countries, an observer from the US suggested deleting or providing a reference for a statement in the report that the landfills or dumpsites commonly used in developed countries to dispose of plastics and foam that may contain BDEs are not equipped with the safeguards necessary to prevent releases to the environment.

The Secretariat said that they would take note of all the comments and asked parties with specific changes to provide them in writing.

REPORT ON ACTIVITIES FOR EFFECTIVE PARTICIPATION

On Wednesday, the Secretariat introduced the report on activities for effective participation in the work of the Committee (UNEP/POPS/POPRC.12/9) and capacity-building and training activities planned and organized by the Secretariat (UNEP/POPS/POPRC.12/INF/18).

Pakistan asked about the role of regional centres in pilot projects to facilitate the involvement of the academic community and research institutions. The Secretariat responded that regional centres could approach the Secretariat to facilitate such cooperation. Citing her country's experience in updating its national implementation plan, Kenya highlighted the value of cooperation between the academic community and regional centres.

An observer from the UK suggested communicating the POPRC's upcoming information needs to the research community.

China underscored that developing country members often lack information on their countries' production, uses, and alternatives for chemicals proposed for listing, and called for support for the collection of such information. The Netherlands supported the call for more information and data, noting the scarcity of information on alternatives in the draft risk management evaluation of SCCPs.

Sri Lanka noted that much information refers to developed countries and Arctic regions. He said that while POPs are ubiquitous, there may be small differences in specific localities and called for use of data from developing countries.

Gabon suggested that the Secretariat encourage inter-regional projects and further consultation on a region-by-region basis.

The POPRC then adopted the decision on effective participation in the work of the Committee.

Final Decision: In its final decision (UNEP/POPS/POPRC.12/9), the POPRC invites:

- the Secretariat to continue its activities related to supporting effective participation in the work of the Committee, subject to the availability of resources;
- regional centres to play an active role in providing assistance to facilitate effective participation in the work of the Committee; and
- parties and observers in a position to do so to contribute to the work of the Committee and to provide financial support to facilitate effective participation by parties in that work.

WORKPLAN FOR THE INTERSESSIONAL PERIOD

On Friday, the Committee adopted its workplan for the next intersessional period between the twelfth and thirteenth meetings of the POPRC (UNEP/POPS/POPRC.12/10).

VENUE AND DATE OF THE NEXT MEETING

On Friday morning, the Committee agreed that POPRC-13 will be held 23-27 October 2017 in Rome, Italy, back-to-back with the thirteenth meeting of the Chemical Review Committee to the Rotterdam Convention, which is scheduled for 17-21 October. The Secretariat noted that POPRC-13 will be held in a new room in the FAO headquarters that will enable Committee members to face each other.

OTHER MATTERS

From science to action: development of a draft road map:

On Wednesday, the Secretariat introduced the document (UNEP/POPS/POPRC.12/INF/20), and reminded participants that in decisions BC-12/22, RC-7/12 and SC-7/30 entitled "From science to action," the COPs of the Basel, Rotterdam and Stockholm Conventions requested the Secretariat to develop and present to the COPs in 2017 a road map for further engaging parties and other stakeholders in informed dialogue for enhanced science-based action in the implementation of the Conventions at the regional and national levels. She said the Secretariat conducted an online survey to collect information from parties and other stakeholders on the challenges and opportunities in bringing science and policy together, invited comments on the draft elements of the road map and invited meeting participants to respond to the survey.

Belarus suggested that the road map could include, *inter alia*, a request to the COP to raise awareness of the need to stimulate research on POPs at the national level, and the need to work with the scientific community and publishers to make POPs-related publications free for use worldwide.

Nepal indicated the need for capacity building in developing countries, including through the establishment of networks among stakeholders and provision of financial support for scientific research.

Chair Gastaldello Moreira encouraged participants to complete the survey related to the draft road map. The Committee agreed to take note of this document.

Synergy with the Basel Convention on the interface of POPs and wastes: On Friday, Martien Janssen (the Netherlands) introduced a CRP on synergy with the Basel Convention on the interface of POPs and wastes prepared by the members from the Netherlands, Canada, Japan and Poland. He observed that waste is becoming a growing issue for the Committee to address and that information and expertise on the waste aspects of candidate chemicals would be useful for the Committee's review process.

Several members and observers supported the suggestion.

Sweden stated that the focus of the POPRC is to review candidate POPs and that waste issues are often extensive and could delay the POPRC's work. Luxembourg noted the need to keep the processes of reviewing chemicals and handling waste separate, and Canada suggested adding that cooperation between the Basel and Stockholm Conventions would respect the Conventions' mandates. Belarus suggested harmonizing the classification of wastes. The Netherlands noted that waste issues are particularly important for the draft risk management evaluation stage of the POPRC's review.

Jamaica asked about mechanisms to promote cooperation between the Conventions. The Secretariat responded that the POPRC can invite up to 30 experts, which could facilitate the participation of Basel Convention experts. An observer from Norway noted that several POPRC members and observers have expertise in waste issues.

IPEN agreed that waste issues are important, but underlined that the health- and protection-based goals of the Stockholm Convention are not shared by the Basel Convention, which has been "at the root of the problems" with low-POPs content in the Basel Convention technical guidelines.

The Committee took note of the CRP and discussion in the report of the meeting.

Stockholm Convention COP-8: The Secretariat reported that COP-8 will be held back-to-back with the COPs of the Rotterdam and Basel Conventions, from 27 April – 5 May 2017 in Geneva, Switzerland, and will include a one-day high level segment

and joint sessions on joint issues among the three Conventions. She said that the theme will be “A future detoxified: sound management of chemicals and waste.” The provisional agenda of COP-8 will be available in November 2016.

CLOSURE OF THE MEETING

On Friday afternoon, Zaigham Abbas (Pakistan), POPRC Vice Chair and Rapporteur, introduced the draft report of the meeting (UNEP/POPS/POPRC.12/L.1 and Add.1), which the POPRC adopted with minor amendments. Chair Gastaldello Moreira thanked participants for their contributions and expressed appreciation for the constructive environment that characterized the meeting. She gavelled the meeting to a close at 3:08 pm.

A BRIEF ANALYSIS OF POPRC-12

At its 12th meeting, the POPRC dealt with challenges arising from the Committee’s review of “live” substances that are still widely produced and used. The difficulty of the Committee’s work was exacerbated by the technical complexity of industrial chemicals, which can be difficult to identify and define. Notably, however, discussions were both collegial and technical, without the blatant politicization that had characterized some of the discussions of recent years. This brief analysis focuses on three of the key issues faced by participants this week: the ways in which observers with different perspectives and resources can contribute to the Committee’s work; the challenges of engaging “downstream” users of the substances under review; and the difficulties of fitting newly-nominated substances into the existing legal framework of the Stockholm Convention.

ENGAGING STAKEHOLDERS

The POPRC has long relied on contributions from observers to facilitate its work. The information provided by stakeholders with different perspectives and interests has consistently been incorporated into risk profiles and risk management evaluations, the documents that inform both the COP’s decision-making process, and policymakers and other stakeholders who do not participate directly in the work of the Convention. The information and expertise provided by producers and users, as well as by those who work with populations that are affected by exposure to these substances, ensure that the POPRC’s scientific review is comprehensive and accurate. It is also vital to parties’ implementation of the decisions taken by the COP, as these observers are often directly involved in raising awareness of the work of the Stockholm Convention and ensuring that stakeholders replace listed substances with non-POPs alternatives. While the POPRC has always welcomed the involvement of stakeholders during meetings and in intersessional working groups, the importance of input from observers was repeatedly underscored at POPRC-12.

One of the most publicly salient substances on the POPRC’s agenda was PFOA, its salts and related compounds. This chemical, which is widely used in consumer products such as non-stick cookware, has received a high level of media attention around the world, and particularly in Australia and the United States, both of which are addressing issues of PFOA-contaminated water supplies. Due in part to the comparatively high level of public awareness of PFOA and the socioeconomic implications of a potential decision to list this substance, the POPRC’s work on this “live” substance benefited from the diverse contributions of representatives of academia, industry and public health advocacy groups. This substance also exemplifies the complexity of many industrial chemicals, and one of the challenges for the POPRC was to define PFOA’s “related

compounds.” In an effort to make the definition clear for the COP and, potentially, to facilitate future implementation, many experts contributed to a lengthy discussion of the complicated chemistry of fluorinated compounds to determine what would, and would not, be listed in the Convention as a PFOA-related compound. An observer who was new to the process described this exchange in the contact group as “surprisingly smooth,” and another observer noted that the definition of related chemicals in some ways exceeded the original notification by the EU and included a broader range of chemicals. The discussions and adoption of the risk profile for PFOA followed the POPRC’s mandate to conduct science-based assessments and demonstrated the ways in which contributions from a broad range of stakeholders can significantly strengthen the Committee’s work to evaluate nominated substances.

In contrast, discussions of decaBDE did not benefit from the contributions of critical stakeholders. The absence of “downstream users”—industries that use, rather than produce, substances—was lamented by several POPRC members who had specifically sought their input during the intersessional period prior to this meeting. DecaBDE is used by many industries that are, perhaps, unaware of the Stockholm Convention, and the potential implications for their companies of the listing of a substance. Recognizing the need for input from these industries, particularly on which critical spare parts in the automotive and aerospace industries, POPRC-11 members agreed to the draft risk management evaluation, but issued a call for such information to be provided in time for consideration at POPRC-12. Representatives from several automotive manufacturers attended this meeting, but some of them were unfamiliar with the POPRC’s working process and did not actively participate in discussions. No representatives from the aerospace industry attended the meeting. The lack of full engagement of these industries led some government observers to speculate that there will be an intense debate on decaBDE exemptions at COP-8, as this meeting will represent the “the last chance” for industry to influence global regulatory actions that will directly affect their interests.

Despite their somewhat haphazard engagement, the influence of industry observers was perceived by some participants to be strong; one representative of an NGO commented that the definition of spare parts considered to be “critical” is too broad and said that requests for exemptions were based on concerns about costs rather than technical necessity. Indeed, as happened with PFOS at COP-5 (when virtually all requests for exemptions were accepted, in order to achieve consensus to list this chemical), the case of decaBDE illustrates the challenges the POPRC faces in assessing the need for exemptions for continued downstream use of substances. POPRC members have expertise related to the assessment of POPs criteria, and are not necessarily able to comment on the availability of alternatives to listed substances or the ability of producers and users to switch to other substances. Noting that the POPRC has previously struggled with assessing the need for exemptions, several participants expressed interest in IPEN’s call for guidance to facilitate review of exemption requests and the related development of a form that would support the systematic gathering of information—including a justification of each request—from industry producers and/or users.

Finally, the conference room paper on enhancing the involvement of waste experts associated with the Basel Convention further underlined the need to engage in the POPRC’s work experts with different kinds of expertise. To some, this need has become more apparent as the POPRC has begun to consider

increasingly complex cases of chemicals that are widely used and subsequently prevalent in waste streams. Many welcomed the idea, seeing such collaboration as an opportunity to provide more robust technical information to the COP. Others were hesitant to complicate the POPRC's work by considering waste issues during its review of nominated substances. One observer worried that consideration of waste implications during review of a chemical could create "undesirable" opportunities for parties to request exemptions for recycling, which could mean that releases of POPs into the environment are prolonged as products containing POPs are recycled into new articles.

SPECIFYING EXEMPTIONS

Specifying exemptions for continued production or use of a chemical proved to be tricky in some cases. While the decaBDE discussion demonstrated a concerted effort to delineate what uses are, for a time, exempt from elimination when the chemical is listed in Annex A, several POPRC participants were reluctant to specify exemptions for SCCPs. After ten years of consideration of this technically complex substance, POPRC-12 decided to recommend that the COP consider listing SCCPs in Annex A to the convention "with or without" specific exemptions. The inclusion of the word "with" was proposed by a POPRC member who cited concerns about the costs of alternative technologies, particularly for developing countries. However, no party or observer had submitted information during the intersessional period to justify the need for a specific exemption.

While the POPRC is not required to identify the specific uses for which exemptions may be needed, this vague wording contradicts the Committee's long-standing practice of identifying in the risk management evaluation those uses that could be affected by a decision to list a chemical. As it stands, the POPRC's decision on SCCPs is likely to open a door for debates on this issue at COP-8, and perhaps set a precedent for future requests for general exemptions. Some participants expressed concern that the COP lacks the technical expertise to determine the need for exemptions. They recalled the case of PFOS, for which the COP listed many specific exemptions and allowable uses without technical review, and noted that some of these acceptable purposes were never registered by parties. Others expressed confidence that the POPRC will continue to specify exemptions for particular uses in its recommendations to the COP, saying that SCCPs are a special case because these complex industrial chemicals are very difficult to identify and monitor.

MAKING THE LEGAL FRAMEWORK OF THE CONVENTION FIT FOR PURPOSE

POPRC-12 also illustrated some potential challenges presented by chemicals that do not cleanly fit into the existing architecture of the Convention. For example, the Committee's evaluation of new information in relation to the listing of HCBd revealed that some source categories of this chemical are not included in Annex C, which addresses unintentional releases of listed chemicals. Some members suggested that, rather than recommending that HCBd be listed in Annex C, that the POPRC simply recommend adding a note on unintentional releases to the existing listing in Annex A, which addresses substances that are intentionally produced and used. Some balked at this proposal, however, suggesting that such a note would confer lesser obligations on control measures than would be required if a substance were listed in Annex C.

On the same issue, several participants flagged concerns about the cost implications of an Annex C listing, saying that the benefits of an Annex C listing would be far outweighed by the

costs. Several participants expressed the view that the POPRC is not responsible for conducting cost-benefit analyses of the implications of listing substances, while others argued that the POPRC should explicitly consider the social and economic impacts of control measures as part of its preparation of risk management evaluations. Several members, from both developed and developing countries, noted the relatively low amount of HCBd released unintentionally from sources that are not already abated though control technologies used for dioxins and furans, and quietly suggested that resources should be devoted to more significant sources of POPs pollution. Others said that the only sources of HCBd releases are unintentional, and therefore not recommending that the COP list HCBd in Annex C would amount to a failure to take meaningful action on this POP.

The Committee's final decision points to new sources of unintentional releases of HCBd, but also notes the concerns of many participants regarding the cost-benefit implications of listing the substance in Annex C. It does not recommend listing the chemical in Annex C or including a note in Annex A. The POPRC ultimately fulfilled its technical task of evaluating the information, but largely left to the COP political considerations as to how to address unintentional releases of HCBd. The COP will have to decide how the POPRC's conclusion can be incorporated in Annex C and how any control measures should be implemented. Ultimately, this discussion of HCBd highlighted the potential need for increased flexibility within the Convention to enable parties to take effective action on new chemicals.

GETTING THE "RIGHT" PEOPLE TO THE COP

POPRC-12 made important progress in adopting two draft risk profiles and one risk management evaluation, but left some difficult issues for COP-8 to address. The Committee maintained its focus on the technical review of nominated substances, but its consideration of several technically complex live substances demonstrated the difficulty of cleanly separating science-based review from socio-economic issues. In recognition of the need for technical input in the policy discussions that will be held at COP-8, Chair Gastaldello Moreira asked POPRC members to assist the COP in its work by attending the meeting and representing the technical expertise of the Committee. As it seeks to balance the science-based recommendations of the POPRC with the socio-economic considerations associated with regulatory action, the COP will face the familiar tensions of working at the interface of science and policy. Just as the POPRC has benefitted from having broad input from a wide range of stakeholders, the COP will also need to ensure that its deliberations are inclusive and take into consideration the diverse interests and needs of those people and parties who will be directly affected by its work.

UPCOMING MEETINGS

28th Meeting of the Parties to the Montreal Protocol: The 28th Meeting of the Parties (MOP-28) to the Montreal Protocol on Substances that Deplete the Ozone Layer is scheduled to consider, *inter alia*, negotiations on a hydrofluorocarbons (HFC) amendment, nominations for critical-use and essential-use exemptions, and other draft decisions forwarded from the Open-ended Working Group (OEWG). The meeting will be preceded by the resumed OEWG-38 session, which will take place on 8 October. **dates:** 10-14 October 2016 **location:** Kigali, Rwanda **contact:** Ozone Secretariat **phone:** +254-20-762-3851 **fax:** +254-20-762-0335 **email:** ozone.info@unep.org **www:** <http://ozone.unep.org/en/meetings>

Second Meeting of the Effectiveness Evaluation Committee under the Stockholm Convention: At Stockholm Convention COP-7, decision SC-7/24 on the effectiveness evaluation established the effectiveness evaluation committee in accordance with the terms of reference set out in the appendix to the framework for effectiveness evaluation (UNEP/POPS/COP.6/27/Add.1/Rev.1), and requested the committee to perform its tasks according to the framework and to report to COP-8. It also requested the Secretariat to support the work of the committee, including the development of the effectiveness evaluation report. **dates:** 4-7 October 2016 **location:** Geneva, Switzerland **contact:** BRS Secretariat **phone:** +41-22-917-8729 **fax:** +41-22-917-8098 **email:** brs@brsmeas.org **www:** <http://chm.pops.int/Default.aspx?tabid=5323>

51st Meeting of the GEF Council: The Global Environment Facility (GEF) Council meets twice a year to approve new projects with global environmental benefits in the GEF's focal areas of biodiversity, climate change mitigation, chemicals and waste, international waters, land degradation, and sustainable forest management; and in the GEF's integrated approach programs on sustainable cities, taking deforestation out of commodity chains, and sustainability and resilience for food security in Sub-Saharan Africa. The Council also provides guidance to the GEF Secretariat and Agencies. The 25-27 October GEF Council meeting will be preceded on 24 October by a consultation with civil society organizations at the same location. On 27 October the Council will convene as the 21st meeting of the Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF), also at the same location. **dates:** 24-27 October 2016 **location:** Washington D.C., US **contact:** GEF Secretariat **phone:** +1-202-473-0508 **fax:** +1-202-522-3240 **email:** secretariat@thegef.org **www:** http://www.thegef.org/gef/council_meetings

Expert Meeting on BAT and BEP and Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional Persistent Organic Pollutants under the Stockholm Convention: The Stockholm Convention COP adopted by its decision SC-7/8 the workplan for the ongoing review and updating of the guidelines on best available techniques (BAT) and provisional guidance on best environmental practices (BEP), and requested the Secretariat to support the expert group in implementing the workplan. At the expert meeting on the Toolkit and BAT and BEP held from 29 September to 1 October 2015 in Bratislava, Slovakia, the experts developed draft terms of reference for synergistically considering aspects relevant to releases from unintentional production and BAT and BEP for the chemicals listed in Annexes A, B and/or C to the Convention and established task teams to work intersessionally on the issues covered in their 2015-16 workplan. **dates:** 25-27 October 2016 **location:** Bratislava, Slovakia **contact:** BRS Secretariat **phone:** +41-22-917-8729 **fax:** +41-22-917-8098 **email:** brs@brsmeas.org **www:** <http://chm.pops.int/Default.aspx?tabid=5324>

Annual Joint Meeting to Enhance Cooperation and Coordination between the Regional Centres under the Basel and Stockholm Conventions: The Basel and Stockholm Conventions have established regional and subregional centres to provide technical assistance, capacity building and to promote the transfer of technology to parties that are developing countries or countries with economies in transition in order to enable them to implement their obligations under these conventions. There are a total of 23 regional centres of which 14 are Basel Convention Regional Centres and 16 are Stockholm Convention Regional Centres. Seven of the centres serve both conventions. **dates:** 30 October – 2 November 2016 **location:** Geneva, Switzerland

contact: BRS Secretariat **phone:** +41-22-917-8729 **fax:** +41-22-917-8098 **email:** brs@brsmeas.org **www:** <http://www.brsmeas.org/Default.aspx?tabid=5281>

Joint Meeting of the Bureaux of the Conferences of the Parties to the Basel, Rotterdam and Stockholm Conventions: The Bureaux of the Basel, Rotterdam, and Stockholm Conventions will hold a joint meeting to discuss matters related to the organization of the 2017 meeting of the COPs of the three Conventions. Bureaux members will also discuss compliance under the Rotterdam and Stockholm Conventions, the preparation of the budget for the biennium 2018-2019, and updates on synergies arrangements and developments under international bodies relevant to the 2017 meeting. **dates:** 3-4 November 2016 **location:** Geneva, Switzerland **contact:** BRS Secretariat **phone:** +41-22-917-8729 **fax:** +41-22-917-8098 **email:** brs@brsmeas.org **www:** <http://synergies.pops.int/>

First Meeting of the SAICM Intersessional Process: Through its Resolution IV/4, the fourth session of the International Conference on Chemicals Management (ICCM4) held in September 2015 decided to initiate an intersessional process to prepare recommendations regarding the Strategic Approach to International Chemicals Management (SAICM) and the sound management of chemicals and waste beyond 2020 for consideration at ICCM5, expected to be held in 2020. The first intersessional meeting is expected to focus in part on a discussion on an independent evaluation of SAICM for 2006-2015. **dates:** 7-9 February 2017 **location:** TBA **contact:** SAICM Secretariat **phone:** +41-22-917-8532 **fax:** +41-22-797-3460 **email:** saicm.chemicals@unep.org **www:** <http://www.saicm.org/>

Basel COP-13, Rotterdam COP-8 and Stockholm COP-8: The 13th meeting of the COP to the Basel Convention, eighth meeting of the COP to the Rotterdam Convention and eighth meeting of the COP to the Stockholm Convention will convene back-to-back and include a high-level segment. The theme will be "A future detoxified: sound management of chemicals and waste." **dates:** 24 April – 5 May 2017 **location:** Geneva, Switzerland **contact:** BRS Secretariat **phone:** +41-22-917-8729 **fax:** +41-22-917-8098 **email:** brs@brsmeas.org **www:** <http://synergies.pops.int/>

For additional meetings, see <http://chemicals-l.iisd.org/>

GLOSSARY

ACAT	Alaska Community Action on Toxics
BAT	Best available techniques
BDEs	Brominated diphenyl ethers
BEP	Best environmental practices
COP	Conference of the Parties
CRP	Conference room paper
decaBDE	Decabromodiphenyl ether
HCBD	Hexachlorobutadiene
IPEN	International POPs Elimination Network
LRET	Long-range environmental transport
MCCPs	Medium-chain chlorinated paraffins
PAN	Pesticide Action Network
POPRC	Persistent Organic Pollutants Review Committee
POPs	Persistent organic pollutants
PFOA	Pentadecafluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PFOSF	Perfluorooctane sulfonyl fluoride
SCCPs	Short-chain chlorinated paraffins