

16th Meeting of the Chemical Review Committee of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade: 8-11 September 2020

With the COVID-19 pandemic preventing face-to-face meetings, the Chemical Review Committee (CRC) of the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade convened to work on a pared-down agenda. The Committee focused on time-sensitive technical work that had been initiated at its 2019 meeting, deferring its scheduled review of eight newly-notified chemicals to its next meeting in 2021. During this virtual meeting, the Committee finalized its work on two industrial chemicals: decabromodiphenyl ether (decaBDE), and perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds. The CRC agreed to recommend that the Conference of the Parties (COP) list both industrial chemicals in Annex III of the Rotterdam Convention. If the COP agrees to this recommendation, the substances will be subjected to the PIC Procedure, which would notify importers prior to trade in these substances.

For decaBDE, participants streamlined the language in the draft decision guidance document (DGD), and took on board new comments to further clarify the guidance to the COP. A key concern for many participants was reflecting that the CRC's definition of decaBDE was broader than the delineation of the substance under the Stockholm Convention on Persistent Organic Pollutants, which lists commercial decaBDE.

In their discussions on PFOA, participants reviewed a new notification of final regulatory action (FRA) from Norway, replacing a notification that had previously been reviewed by the Committee. They also grappled with the issue of whether and how to reflect the CAS numbers for this group of chemicals, which may have thousands of related compounds. Participants were keenly aware of the challenges of listing groups of chemical formulations like decaBDE and PFOA, and took the time to consider how best to reflect the specificities of each of the particular substances under discussion, while leaving room for potential future consideration of others in the relevant chemical groupings.

The Committee also discussed updates to the Handbook of Working Procedures and Policy Guidance for the CRC and considered how to enhance effective participation by members, with many lauding the virtual events that kept the Committee members engaged with CRC's work during the intersessional period. At the close of CRC-16, participants were proud of the

successful completion of significant technical work, despite the difficult circumstances, an achievement that demonstrated the CRC's resilience and participants' ability to collaborate effectively, even while they are scattered across the globe.

A Brief History of the Rotterdam Convention and the CRC

Over the past 40 years, growth in chemical production and trade has raised increasing concerns about the potential risks posed by hazardous chemicals and pesticides to human health and the environment. Developing countries were particularly vulnerable to these effects, lacking the infrastructure to monitor their import and use. In response to these concerns, under the auspices of the UN Food and Agriculture Organization (FAO) and the UN Environment Programme (UNEP), the Rotterdam Convention on the PIC Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was adopted in September 1998 and entered into force on 24 February 2004.

Its objectives are:

- to promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm; and
- to contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national

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decision-making process on their import and export, and by disseminating these decisions to parties.

The PIC Procedure is a mechanism for obtaining and disseminating the decisions of importing parties on whether they wish to receive future shipments of certain chemicals, and for ensuring compliance with these decisions by exporting parties.

The Procedure applies to chemicals listed in Annex III of the Rotterdam Convention, which includes pesticides, industrial chemicals, and severely hazardous pesticide formulations (SHPFs). The Convention creates legally binding obligations for the implementation of the PIC Procedure.

The role of the CRC: The CRC is a subsidiary body of the Rotterdam Convention COP established to review notifications of FRA against the criteria set out by the Convention in Annex II (for chemicals) and Annex IV (for SHPFs) and make recommendations to the COP for listing such chemicals in Annex III. Proposals to include chemicals under Annex III are submitted to the CRC, with the final decision taken by the COP.

There are two ways to trigger the addition of new chemicals to Annex III. For pesticides and industrial chemicals, all parties must notify the Secretariat of any regulatory action they have adopted domestically to ban or severely restrict a chemical for environmental or health reasons. When the Secretariat receives two notifications of FRA from two different PIC regions (Africa, Asia, Europe, Latin America and the Caribbean, Near East, North America, and Southwest Pacific) that meet the criteria established in Annex I to the Convention (which describes properties, identification, and uses of the chemical and information on the regulatory action), it forwards the notifications to the CRC. The Committee then screens the notifications according to the criteria contained in Annex II and, if the CRC finds the criteria are met, it recommends listing the chemical in Annex III and preparing a DGD for consideration by the COP.

For SHPFs, any party that is a developing country or country with an economy in transition can propose a SHPF for listing, which the Committee screens against the criteria in Annex IV (which contains information and criteria for listing SHPFs in Annex III).

The CRC has met annually since the Convention's entry into force.

Recent Highlights

COP-6: In 2013, Rotterdam Convention COP-6 was held in conjunction with the COPs of the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal and the Stockholm Convention on Persistent Organic Pollutants and a simultaneous extraordinary meeting of the three COPs.

COP-6 decided to amend Annex III to list: azinphos-methyl; commercial pentabromodiphenyl ether (pentaBDE), including industrial tetraBDE and industrial pentaBDE; commercial octaBDE, including hexaBDE and heptaBDE; and perfluorooctanesulfonic acid (PFOS), perfluorooctanesulfonates, perfluorooctanesulfonamides, and perfluorooctanesulfonyls.

However, COP-6 decided that while paraquat met the listing criteria for an SHPF, it would postpone a decision until COP-7 as those opposed to listing had concerns about the science, alternatives, and implications for trade.

A decision on listing chrysotile asbestos was also deferred to COP-7, due to similar concerns.

CRC-9 and 10: In 2013 and 2014, the Committee took decisions on trichlorfon, cyhexatin, methamidophos, lead arsenate, lead carbonate, fenthion 640 ultra-low volume (ULV), and pentachlorobenzene. It also adopted DGDs on

methamidophos and fenthion ULV and agreed to prepare a DGD for short-chain chlorinated paraffins (SCCPs), and to revise the tributyltin (TBT) DGD to include TBT compounds for industrial uses. CRC-9 also requested the Secretariat to prepare an electronic "handbook" of procedures and guidance for the Committee.

COP-7: At COP-7 in 2015, delegates were unable to agree on the listing of paraquat, fenthion, trichlorfon, and chrysotile asbestos in Annex III, and deferred consideration to COP-8. COP-7 also established an intersessional working group to: review cases where the COP was unable to reach consensus on the listing of a chemical by identifying the reasons for and against listing and, based on that and other information, develop options for improving the effectiveness of the process; and develop proposals for enabling information flows to support the PIC Procedure for those chemicals.

CRC-11 and 12: In 2015 and 2016, the Committee adopted draft DGDs on SCCPs and on TBT compounds for industrial uses. The Committee also recommended that the COP make carbofuran and carbosulfan subject to the PIC Procedure and decided to prepare the DGDs for both substances. It also adopted a decision on the final regulatory action on benzidine and considered a proposal to include carbofuran suspension concentrate at or above 300 g/L as an SHPF. CRC-12 established an intersessional task group to update the Handbook of Working Procedures and Policy Guidance for the CRC.

COP-8: In 2017, COP-8 agreed to list four chemicals in Annex III: carbofuran, SCCPs, TBT compounds, and trichlorfon, but deferred decisions on listing carbosulfan, chrysotile asbestos, paraquat, and fenthion until COP-9.

CRC-13: In 2017, the Committee discussed 13 chemicals and two SHPFs, adopting recommendations for listing two pesticides (acetochlor and phorate) and an industrial chemical, hexabromocyclododecane (HBCD), in Annex III. CRC-13 further agreed to update the Handbook.

CRC-14: In 2018, the CRC adopted the DGDs for acetochlor, HBCD, and phorate and agreed that these chemicals met the criteria to be listed in Annex III. The Committee agreed that the notifications for PFOA, its salts and PFOA-related compounds met the criteria and established an intersessional drafting group to work on the DGD. CRC-14 agreed to take no further action on a notification submitted by Canada on HBCD, given that two notifications from two PIC regions had been accepted, and it set aside a notification on methyl-parathion, deciding that it had not met all the criteria for listing.

COP-9: In 2019, COP-9 voted to adopt a compliance mechanism that established a new annex to the Convention, concluding 15 years of negotiations on the issue. The COP agreed to include HBCD and phorate in Annex III, but could not agree to list carbosulfan, acetochlor, paraquat, fenthion, and chrysotile asbestos.

CRC-15: In 2019, the CRC agreed to recommend the listing of decaBDE, a flame retardant, in Annex III, and reviewed the draft DGD on PFOA, its salts and PFOA-related compounds. The committee reviewed notifications of final regulatory action on the herbicide amitrole and the industrial chemicals nonylphenols and nonylphenol ethoxylates, but in both cases determined that no further action would be taken until a country from a second PIC region notifies the CRC that it has taken action to ban or severely restrict the use of these chemicals.

CRC-16 Report

Chair Noluzuko “Zukie” Gwayi (South Africa) opened the meeting on Tuesday, 8 September 2020, noting that due to the COVID-19 pandemic, the CRC Bureau decided, on an exceptional basis, to hold the meeting online.

Rémi Nono Womdim, Executive Secretary of the Rotterdam Convention-FAO, lamented that holding this meeting virtually had limited the number of FRAs the Committee could consider, but welcomed the webinars, trainings, and other efforts to increase participation in the Convention’s work. He also highlighted the role of the FAO in raising awareness on issues related to hazardous pesticides, as well as in assisting countries with their implementation of the Rotterdam Convention.

Rolph Payet, Executive Secretary, Basel, Rotterdam and Stockholm (BRS) Conventions, noted the Committee’s key work at this meeting would be to finalize its recommendation to list decaBDE and consider Norway’s new notification for PFOA, its salts and PFOA-related compounds. He stressed the importance of this work as a part of global efforts to meet the Sustainable Development Goals and ensure nature-based solutions to development challenges. He also stressed that we must take lessons from COVID-19 to “build back better.”

The CRC adopted the provisional agenda (UNEP/FAO/RC/CRC.16/1) and agreed to the organization of work proposed by the Secretariat (UNEP/FAO/RC/CRC.16/INF/2).

Rotation of the Membership

The Secretariat introduced the rotation of the membership and experts nominated as members of the CRC (UNEP/FAO/RC/CRC.16/INF/3). She noted that, at COP-10, new members will need to be nominated to fill vacancies left by members whose terms have expired.

Technical Work

Consideration of the draft decision guidance document for decaBDE: On Wednesday, the Secretariat introduced the draft DGD for decaBDE (UNEP/FAO/RC/CRC.16/3) and related comments and responses (UNEP/FAO/RC/CRC.16/INF/6). The intersessional drafting group was chaired by Suresh Lochan Amichand (Guyana) and Peter Dawson (New Zealand) served as drafter. Dawson presented the DGD, noting that comments from members and observers were taken into account in three revised versions of the draft. He highlighted several challenges, including that some information in the notifications of final regulatory action was outdated and that the scope of notifications may differ when they address groups of chemicals.

Chair Gwayi stressed that the intersessional drafting group had followed the process correctly, with comments from members and observers being taken on board.

In the ensuing discussion, Belgium and Pakistan highlighted the need to streamline the language in the DGD with the listing of commercial decaBDE under the Stockholm Convention. Canada noted that the CRC agreed to list decaBDE as an industrial chemical.

On measures to reduce exposure, China suggested deleting a reference to language on the country’s prohibition of polybrominated diphenyl ethers in cars, explaining that this is a voluntary guideline with no legal standing. Belgium suggested amending references to European Union regulations related to decaBDE exemptions, saying they had been updated since the DGD was published. Canada stressed that a DGD is a static document and should not be subject to updating procedures, except to amend errors. Austria noted that the information

contained in this section was taken solely from documents produced for the Stockholm Convention and should be referenced accordingly.

Canada underscored the need to clarify which mixture was being recommended for listing and suggested adding a CAS number.

Dawson explained that the draft DGD was based on BDE-209, which is the commercial mixture, but in line with the wording of all notifications of final regulatory action, the DGD refers only to decaBDE. He also reminded participants that the DGD and CRC’s decision to recommend listing referred to decaBDE, not commercial decaBDE.

Chair Gwayi reminded participants that the notifications of final regulatory action are the basis for the CRC’s work, and while information from the Persistent Organic Pollutants Review Committee (POPRC) to the Stockholm Convention may augment the information received from notifying parties, it cannot replace the chemicals that were listed in these notifications.

Emphasizing that most information in the draft DGD had been taken from the relevant notifications, Dawson suggested that information from the POPRC could be clearly labeled in the text rather than only in references at the end.

Senegal asked for clarification on the consistency between listings of decaBDE in the Rotterdam and Stockholm Conventions. Pakistan underscored the need to resolve confusion about what is listed in the Stockholm Convention and whether the CRC is recommending the listing of decaBDE or commercial decaBDE.

Dawson explained that the listing in the Stockholm Convention clarifies that BDE-209 is present in commercial decaBDE, and that the chemical the CRC is considering is the same as the chemical listed in the Stockholm Convention. Chair Gwayi added that the CAS number is the same for both listings.

The CRC asked Amichand and Dawson to prepare a revised draft DGD for further consideration in plenary and requested the Secretariat to prepare a draft decision to adopt the DGD as amended.

On Thursday, Dawson reported that the DGD (UNEP/FAO/RC/CRC.16/CRP.8) had been revised based on comments made in plenary, and that the related comments and responses were contained in UNEP/FAO/RC/CRC.16/CRP.9. Chair Gwayi called for any final written comments to be submitted to the Secretariat so they could be included in the final draft.

On Friday, Dawson reported that no additional comments had been received and presented the finalized draft documents to the Committee. Participants agreed to the text of the revised draft DGD on decaBDE (UNEP/FAO/RC/CRC.16/CRP.8/Rev.1), and the related table of comments and responses (UNEP/FAO/RC/CRC.16/CRP.9/Rev.1). The Committee then adopted the draft decision on decaBDE (UNEP/FAO/RC/CRC.16/CRP.6) without amendment.

Final Decision: In its final decision (UNEP/FAO/RC/CRC.16/CRP.6), the CRC adopts the draft DGD for decaBDE and decides to forward it, together with the related tabular summary of comments, to the COP for its consideration.

Report of the Bureau on the preliminary review of a notification of final regulatory action: On Tuesday, the Secretariat introduced the Bureau’s report on its preliminary review of Norway’s new notification of final regulatory action on PFOA (UNEP/FAO/RC/CRC.16), as well as information on trade (UNEP/FAO/RC/CRC.16/INF/4) and the summary of notifications of final regulatory action previously reviewed or scheduled for review by the CRC (UNEP/FAO/RC/CRC.16/INF/5).

Martin Lacroix, Canada, presented the Bureau's review (UNEP/FAO/RC/CRC.16/CRP.1) of Norway's notification and noted that all CRC members had participated in the work of the intersessional task group that analyzed where and how the notification meets the Annex II requirements.

The CRC took note of the information.

Review of a notification of final regulatory action for PFOA, its salts and PFOA-related compounds: On Tuesday, the Secretariat introduced the relevant documents (UNEP/FAO/RC/CRC.16/4, UNEP/FAO/RC/CRC.16/INF/7, UNEP/FAO/RC/CRC.16/INF/8, and UNEP/FAO/RC/CRC.16/INF/9).

Agnieszka Jankowska, Poland, Chair of the Task Group on PFOA, noted that the CRC had previously reviewed notifications of FRA from Canada and Norway, explained that the new notification from Norway applies to a wider scope of substances than its previous notification, and emphasized that no exhaustive list of CAS numbers, or numeric identifiers assigned to substances when they are entered into the CAS registry, was available. Highlighting that the notification meets the information requirements of Annex I and the criteria set out in Annex II, she said the Task Group recommends the CRC conclude that the notification from Norway meets the criteria and update the rationale for its conclusion accordingly.

Canada, Austria, New Zealand, Colombia, Antigua and Barbuda, Ghana, Guyana, Indonesia, Argentina, Senegal, Pakistan, Maldives, and observers from Suriname and the US supported the conclusion that the notification from Norway meets the Annex II criteria.

Noting general agreement, CRC Chair Gwayi requested the Secretariat to prepare a draft decision and asked Jankowska and drafter Timo Seppälä (Finland) to prepare a draft rationale for the Committee's consideration.

The Secretariat introduced the proposed revision to the DGD (UNEP/FAO/RC/CRC.16/CRP.2) and the draft decision on PFOA (UNEP/FAO/RC/CRC.16/CRP.3).

Seppälä explained the changes to the DGD, noting that key alterations related to the significantly broadened scope of Norway's 2020 regulations, which are still narrower than Canada's regulations. Noting that commercial mixtures of PFOA are often "not well characterized," he said the text was intended to underscore that it is not possible to provide a comprehensive list of CAS numbers, as there are "hundreds or thousands of PFOA and PFOA-related compounds."

In the ensuing discussion on the DGD, New Zealand, with observers from Australia and the US, suggested including a reference explaining the exclusion of PFOS, as it is already listed. Pakistan requested clarification as to why the DGD contains two different limit values for PFOA concentrations. Seppälä noted that the lower limit value (25ppb) relates to concentrations of PFOA and its salts, and the higher value (1000ppb) relates to concentrations of PFOA-related compounds.

Chair Gwayi called on the Committee to consider the appropriate action for chemicals without CAS numbers, noting the need for a consistent approach throughout the DGD.

China, with Tanzania, called for a list of the chemicals contained in both the Norwegian and Canadian notifications to be included in the DGD, to make import and export regulations more precise. Canada suggested referencing an "indicative," rather than "non-exhaustive," list of PFOA, its salts and PFOA-related compounds, including CAS numbers. Austria proposed either including an extensive list of CAS numbers in the annex to the DGD or requesting the Secretariat to publish a more comprehensive list, as was the case with mercury compounds. New Zealand and Switzerland suggested referring to the list of

PFOA-related substances prepared by the POPRC. New Zealand also noted that the listing could include examples drawn from the Norwegian and Canadian notifications, as was the practice in the listing of PFOS. Canada noted the proposed list may be broader than the list in the Norwegian notification but could be streamlined. China emphasized that only CAS numbers of the chemicals under discussion should be included in the annex to the DGD. To clarify, the Secretariat introduced the document containing a comparison of the chemical identities that are subject to the respective FRA notified by Canada and Norway (UNEP/FAO/RC/CRC.16/CRP.7).

Acknowledging the need for further discussion, Chair Gwayi proposed, and the Committee agreed, to establish a contact group on PFOA, chaired by Jankowska, with Seppälä as drafter. The group was tasked with revising the DGD based on plenary discussions.

The Secretariat then introduced the related draft decision (UNEP/FAO/RC/CRC.16/CRP.3). Pakistan supported the draft as presented. Canada, with an observer from the US, noted that the draft decision would need to contain the relevant CAS numbers. The Committee agreed to refer the draft decision to the contact group on PFOA.

On Thursday, Contact Group Chair Jankowska reported that the group was considering issues related to the identification of PFOA, and said that the group would use a revised DGD, revised draft decision, and revised comments document as a basis for further discussion.

In the contact group, members reviewed the proposed revision to the DGD (UNEP/FAO/RC/CRC.16/CRP.2/Rev.1). They discussed a section in the introduction describing the listing process. Some proposed including a reference to the fact that chemicals under discussions should meet Annex II criteria of the Rotterdam Convention. They agreed to retain the original language, which states that, "candidate chemicals for inclusion in the PIC procedure under the Convention are those that have been banned or severely restricted by national regulatory actions in two or more parties in two different regions." Delegates also addressed the placement of CAS numbers, agreeing to reference them in a dedicated section rather than as part of the chemical name. They also agreed to include a reference to the broader listing of PFOA under the Stockholm Convention, with a caveat explaining that some of the chemicals listed under the Stockholm Convention are not within the scope of the Rotterdam Convention.

On Friday, Contact Group Chair Jankowska reported that the group had finalized its work on the draft DGD, made revisions to the document containing comments and responses, and finalized the related draft decision. Participants agreed to the text of the draft rationale for the conclusion by the CRC that the notification of final regulatory action submitted by Norway with respect to PFOA, its salts and PFOA-related compounds in the industrial category meets the criteria of Annex II to the Rotterdam Convention (UNEP/FAO/RC/CRC.16/CRP.5). Participants also agreed to the revised draft DGD for PFOA, its salts and PFOA-related compounds (UNEP/FAO/RC/CRC.16/CRP.10), and related table of comments and responses (UNEP/FAO/RC/CRC.16/CRP.4). Responding to a query by Pakistan, Chair Gwayi confirmed that there was quorum for decision making. Participants then adopted the draft decision (UNEP/FAO/RC/CRC.16/CRP.11).

Final Decision: In its final decision (UNEP/FAO/RC/CRC.16/CRP.11), having considered the notification of FRA for PFOA, its salts and PFOA-related compounds submitted by Norway,

replacing the previously submitted notification on the chemicals from Norway, the CRC, *inter alia*:

- concludes that the notification of FRA for PFOA, its salts and PFOA-related compounds submitted by Norway meets the criteria set out in Annex II to the Convention;
- adopts the rationale for the Committee's conclusion;
- recommends, in accordance with paragraph 6 of Article 5 of the Convention, that the COP list PFOA (CAS No. 335-67-1), its salts and PFOA-related compounds in Annex III to the Convention as industrial chemicals;
- notes that the definition of PFOA, its salts and PFOA-related compounds is provided in section 1 of the draft DGD, and that the definition covers a large number of chemicals and an exhaustive list of CAS numbers is not available;
- recommends that the COP, if it decides to list those chemicals in Annex III to the Convention, consider requesting the Secretariat to prepare, in consultation with the CRC, an indicative list of PFOA, its salts and PFOA-related compounds, make it available on the Rotterdam Convention website, and update it periodically; and
- adopts the revised draft DGD for PFOA, its salts and PFOA-related compounds and decides to forward it, together with the related tabular summary of comments, to the COP for its consideration.

Other Matters

Handbook of Working Procedures and Policy Guidance for the CRC: On Wednesday, the Secretariat noted a previous request by the Committee to update the Handbook to only reference parties whose notifications met all the listing criteria. She highlighted that the Handbook had been updated and posted on the Convention website in October 2019. Pakistan and Austria welcomed the updates. The Committee took note of the information.

Report on Activities to Facilitate Effective Participation in the Work of the CRC: On Wednesday, the Secretariat reported that it had organized trainings and workshops for new members in the lead-up to CRC-16 and noted that, due to the COVID-19 pandemic, these meetings could not be conducted in person. She further reported on a face-to-face workshop held in Dakar in February 2020 to discuss enhancing effective participation in the work and implementation of the Convention in West Africa. She highlighted the convening of a number of general information webinars and announced that at the end of CRC-16, delegates would be invited to provide feedback to assist the Secretariat in enhancing members' participation. Canada urged members to respond to this survey. Chair Gwayi called on members to provide the Secretariat with comments on enhancing the effectiveness of the Committee. Delegates took note of the information.

Schedule for Intersessional Work: On Wednesday, Chair Gwayi reminded participants that CRC-16 had been scheduled to consider nine new substances (not including PFOA). However, due to the COVID-19 pandemic restrictions on face-to-face meetings, the Bureau decided to prioritize those substances that could be recommended for listing at COP-10 in 2021.

The Secretariat introduced the document containing the summary record of notifications of final regulatory action for chemicals reviewed by the Interim CRC or the CRC and of notifications scheduled for review (UNEP/FAO/RC/CRC.16/INF/5). She outlined an intersessional work schedule, noting that the Secretariat would make the relevant notifications available by mid-November 2020, with the Committee working to complete a first preliminary review and establish intersessional task groups by mid-December 2020. She also stated that these task groups

would work until April 2021 to finalize their reports. She stressed that this work only pertained to notifications that have already been received. Canada noted that the Bureau could also prioritize the review of any new notifications.

Colombia and Austria supported the proposal to engage in as much intersessional work as possible. Argentina expressed concern that eight substances may be too many to review within the suggested period. Tanzania requested clarification on the working modalities of the intersessional task groups. Canada noted that the coronavirus pandemic may further complicate the schedule if CRC-17 cannot be held face-to-face.

Chair Gwayi clarified that all intersessional work is carried out by email and that work is distributed fairly to ensure it is not burdensome.

Delegates took note of the schedule of intersessional work as described.

Venue and Date of CRC-17

On Friday, the Secretariat announced that CRC-17 is scheduled to be held 20-24 September 2021 at FAO headquarters in Rome, Italy. She noted that the meeting had originally been planned for four days but has been extended to five due to its heavy agenda. She said that CRC-17 would still be within budget, because of the savings resulting from holding CRC-16 online. She also noted that POPRC-17 could be held back-to-back with CRC-17, from 27 September-1 October 2021, pending agreement by the POPRC. She underscored that if these arrangements cannot be met due to the ongoing COVID-19 pandemic, the Bureau would communicate its decision on altered modalities in good time. Participants took note of the information.

Adoption of the Report and Closure of the Meeting

On Friday, the Committee adopted the report of its meeting (UNEP/FAO/RC/CRC.16/L.1).

Lauding participants for their successful work, BRS Executive Secretary Rolph Payet noted that although there is still a need for face-to-face interactions, this online meeting demonstrated commitment to achieve the goals of the Convention. He thanked the Secretariat, noting the additional burden placed on them to organize an online meeting. Commending participants for engaging constructively, time zones notwithstanding, he thanked Peter Dawson (New Zealand) for his dedication to the process even "very late at night," further noting that he could take lessons from this CRC meeting as POPRC Chair in January 2021.

Noting the important work the CRC does to ensure food security and the protection of the environment, Rémi Nono Womdim, Executive Secretary of the Rotterdam Convention-FAO, congratulated participants for their dedication to the process and the constructive spirit of the meeting. He praised Chair Gwayi for her leadership and thanked the Secretariat for their efforts.

Chair Gwayi thanked the session chairs and drafters for their leadership and members and observers for their commitment to the process even in unprecedented circumstances. Highlighting that the Committee had "made history" by holding its first online meeting and involving a record number of observers, she called on Committee members to attend COP-10 to defend the CRC's work.

Chair Gwayi closed the meeting at 2:22 pm (UTC+2).

A Brief Analysis of CRC-16

With the next meeting of the Conference of the Parties (COP) to the Rotterdam Convention on the horizon, the Chemical Review Committee (CRC) was under pressure to complete its work on two widely-used industrial chemicals or risk delaying international action by at least two years. Thus, in the face of the global disruption created by the COVID-19 pandemic, technical experts from around the world convened virtually to review and finalize their recommendations to list decabromodiphenyl ether (decaBDE) and perfluorooctanoic acid (PFOA), its salts and related compounds in Annex III of the Rotterdam Convention.

The pandemic affected both the agenda and logistics of the meeting, forcing the Basel, Rotterdam and Stockholm (BRS) Secretariat to schedule three-hour plenary sessions over four days at a time that would be as convenient as possible for people regardless of time zone. With less than half of the usual time each day available for collaboration, the Bureau decided in advance to focus only on the two chemicals that were already under review by the Committee, and to defer consideration of eight newly-notified substances to the next meeting in 2021.

This brief analysis considers the procedural and substantive hurdles the CRC overcame at this meeting as participants sought to keep the work of the Convention on schedule, the lessons learned from this experience, and the challenges the Committee may face in the coming year.

What's in a Name?

The two industrial chemicals reviewed at this meeting are familiar to many people working in the arena of global chemical regulation. Both PFOA and decaBDE have recently been designated as persistent organic pollutants (POPs) and slated for elimination by the Stockholm Convention. Discussions on PFOA, in particular, required participants to revisit a familiar question: How should this complex group of substances be defined in the Convention?

PFOA is one of thousands of perfluoroalkyl substances, or PFAS, a group of synthetic chemicals used in the manufacture of household goods. Other PFAS that have been addressed by the global chemicals regime include perfluorooctanesulfonic acid (PFOS), which was listed in the Stockholm Convention in 2009, and perfluorohexane sulfonate (PFHxS), which is currently under review by the Stockholm Convention's POPs Review Committee (POPRC). The seemingly infinite variations of PFAS have spurred calls for categorical action on these substances, since determining how they should be dealt with now could provide a template for addressing chemicals in the same family in the future. Chemicals in the PFAS family are present in a wide range of household items. PFOA, for instance, is a coating agent used in non-stick cookware, food wrappings, textiles, carpets, shoes, and furniture. In the new notification of final regulatory action from Norway, exposure to PFOA was linked to kidney and testicular tumors, weight gain, and Attention Deficit Hyperactivity Disorder in children. Other PFAS are linked to similar health problems in humans and other animals.

With rising public awareness of the dangers of these pervasive chemicals, there are growing calls for aggressive action on PFAS as a whole. Reviews of individual substances can take years, and closely-related substitutes for banned chemicals are repeatedly being linked to many of the same health and environmental effects as the chemicals they replaced. The expanding list of PFAS-related substances under review by bodies within the global chemicals regime raises questions about how these agreements can usefully address the substances. In the case of the Rotterdam

Convention specifically, a key question is how the CRC should define chemicals in order to avoid constantly revisiting notifications of action on slightly tweaked versions of these complex chemicals. For example, this year the CRC reviewed an updated notification from Norway that effectively increased the scope of the Committee's recommendation to list PFOA, its salts and related compounds. Norway's previous notification had been sufficient to meet the criteria for listing PFOA, but the updated criteria included a broader range of PFOA substances.

The challenge of the Rotterdam Convention as a whole is balancing the need to be specific in the listing of any particular substance to facilitate information exchange between international trading partners, while also being broad enough to close any loopholes that could be created if definitions coming out of technical reviews are so specific that they "can't see the forest for the trees." In order to mitigate this problem, the Rotterdam and Stockholm Conventions have both specified that lists of formulations of chemicals are "indicative" or "non-exhaustive." At this meeting, one delegate lamented that with "hundreds or thousands" of substances that can be classified as PFOA, it is impossible to list all of them. Because production of new versions of these live chemicals is constantly expanding, attempts to capture every version in a legal document inadvertently causes "the goalposts to move further and further away." The questions of how chemicals should be defined and listed is not new, but its importance is growing as parties take action on increasing numbers of complex and widely use groups of industrial chemicals.

Logging into CRC-16: Overcoming the Challenges of Meeting Online

The COVID-19 pandemic presented an extraordinary and unprecedented challenge, upending the way in which the CRC conducts its work. As participants were unable to gather in person, the meeting was held online to allow the CRC to proceed with at least part of its work. This experiment in virtual meetings yielded valuable insights into the prospects for the future work of this and other bodies.

As the Secretariat noted, one upside of meeting online was significant cost savings, in part because there was no need to fund hotels, travel, and other expenses. The environmental benefits were also clear, as people did not have to fly to participate. It is possible that some will prioritize these benefits in future discussions of the operations of the CRC and other bodies, perhaps seeking to expand the kinds of work carried out remotely to save precious resources.

However, the change in format necessitated significant adjustments to both the agenda and operation of the meeting. For example, as noted above, while the CRC was originally scheduled to work on ten chemicals, the Committee's Bureau agreed in advance to focus on just two, deferring consideration of the less time-sensitive substances to the next meeting. Participants also logged in from many different time zones, with some joining early in the morning and others staying up until very late at night. While it is not unusual for participants to suffer from jetlag during meetings, this does raise questions about equity in scheduling meetings to minimize both exhaustion and inconvenience.

In the immediate future, many meetings of UN bodies will be held online, and CRC-16 offers lessons in how to manage these sessions effectively. Many participants observed that this meeting ran exceptionally smoothly thanks to a streamlined agenda, extensive technical support, and effective management of interventions by the Chair and the Secretariat.

The Secretariat and the Bureau simplified the use of technology as much possible: for example, video was enabled only for the Chair, which reduced the bandwidth required for connections. Participation by both members and observers was high, and one participant wondered if the comparative anonymity of having an audio-only meeting actually encouraged people to contribute more freely than they might have if people could see each other's faces. While participants had the option of using a 'chat' feature to post comments, this was largely ignored, with members and observers quickly falling into the rhythm of responding to the Chair's requests for interventions orally, as they would have in a face-to-face meeting. The Secretariat also chose not to use virtual breakout rooms, minimizing transition time between formal and informal sessions and avoiding the technical problems that could come with requiring participants to log into and out of different sessions.

Despite the efforts of the Secretariat, however, the meeting was not entirely free of glitches; there were minor but time-consuming issues such as poor connections, background noise, and issues with speakers muting and unmuting themselves. Such problems did slow the work of the Committee and indicated that it might be difficult to run a meeting efficiently with either a bigger agenda or more participants.

Looking Ahead

If the COP is held in July 2021 as scheduled, the CRC's recommendations to list decaBDE and PFOA under the Convention will be reviewed and these chemicals will potentially be subjected to the Prior Informed Consent procedure. However, these substances are still present in a wide range of products, and they may be of concern to countries with an economic interest in their continued export. The Rotterdam Convention COP has struggled to reach consensus to list several economically valuable chemicals that are widely produced and used, even when parties acknowledge that the chemicals meet the criteria for listing. Perhaps anticipating this, CRC Chair Noluzuko "Zukie" Gwayi encouraged members to attend COP-10 to "defend and explain" the CRC's work, thereby facilitating the decision-making process and ensuring that the technical work fully informs the COP's policy decisions.

Looking further ahead, the CRC will have at least eight chemicals to review at its next meeting in 2021. This is a heavy agenda for a face-to-face meeting and would be very difficult—perhaps impossible—in a virtual setting with the same constraints as CRC-16. However, the efficiency, high level of participation, and steady progress of the Committee throughout CRC-16 demonstrated that there can be forward momentum even in the face of severe disruption to normal practices. If another creative solution to managing the Committee's work is required next year, CRC-16 offers a solid basis for further innovation in virtual collaboration.

Upcoming Meetings

Sixteenth Meeting of the Persistent Organic Pollutants Review Committee: POPRC-16 will review the possible listing of hazardous chemicals under the various annexes of the Stockholm Convention. **dates:** 11-15 January 2021 (TBC) **location:** Geneva, Switzerland **www:** <http://www.pops.int/>

5th Session of the UN Environment Assembly (UNEA): UNEA-5 will take place under the theme "Strengthening Actions for Nature to Achieve the Sustainable Development Goals." Its aim will be to connect and consolidate environmental actions within the context of sustainable development and motivate the

sharing and implementation of successful approaches. **dates:** 22-26 February 2021 **location:** Nairobi, Kenya **www:** <https://environmentassembly.unenvironment.org/unea5>

Resumed Meeting of Basel Convention OEWG12: OEWG12 is tentatively scheduled to resume in a face-to-face session to conclude negotiations and forward its recommendation to the COP. **dates:** March 2021 (TBC) **location:** Nairobi, Kenya **www:** <http://www.basel.int>

Fifth Meeting of the International Conference on Chemicals Management (ICCM5): The top decision-making body of the Strategic Approach to International Chemicals Management (SAICM) will consider a possible post-2020 platform for addressing chemicals and waste. **dates:** 5-9 July 2021 **location:** Bonn, Germany **www:** <http://www.saicm.org>

Basel Convention COP15, Rotterdam Convention COP10 and Stockholm Convention COP10: The 15th meeting of the COP to the Basel Convention, the 10th meeting of the COP to the Rotterdam Convention and the 10th meeting of the COP to the Stockholm Convention will convene back-to-back. The meetings will include joint sessions covering matters of relevance to at least two conventions, separate sessions of the meetings of the each of the three COPs, and a high-level segment. The theme is "Global Agreements for a Healthy Planet: Sound management of chemicals and waste." **dates:** 19-30 July 2021 **location:** Geneva, Switzerland **www:** <http://www.brsmeas.org/>

Seventeenth Meeting of the Chemical Review Committee: CRC-17 will review notifications of final regulatory action for possible listing in Annex III of the Rotterdam Convention. **dates:** 20-24 September 2021 **location:** Rome, Italy **www:** <http://www.pic.int>

For additional meetings, see <http://sdg.iisd.org>

Glossary

BRS	Basel, Rotterdam and Stockholm Conventions
COP	Conference of the Parties
CRC	Chemical Review Committee
decaBDE	Decabromodiphenyl ether
DGD	Decision guidance document
FAO	Food and Agriculture Organization of the United Nations
FRA	Final regulatory action
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexane sulfonate
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PIC	Prior informed consent
POPs	Persistent organic pollutants
POPRC	Persistent Organic Pollutants Review Committee
SHPF	Severely hazardous pesticide formulation