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Quick Guide to IPEN Views on POPRC-21

September 2025

The 21st meeting of the POPs Review Committee (POPRC) will take place in Rome, Italy, September 29th to October 3rd, 2025. All meeting documents are available at the [POPRC-21 website](#). During its meeting, the POPRC will address several key substantive items as detailed below.

The draft Risk Profile of polybrominated dibenzo-p-dioxins and dibenzofurans (PBDD/Fs) and mixed polybrominated/chlorinated dibenzo-p-dioxins and dibenzofurans (PBCDD/Fs)

Meeting documents: UNEP/POPS/POPRC.21/2; UNEP/POPS/POPRC.21/INF/5; UNEP/POPS/POPRC.21/INF/6

Dioxins and furans are a large group of chemicals that are unintentionally generated during a wide range of industrial and waste management processes. Polychlorinated dibenzo-p-dioxins and furans were listed in Annex C of the Stockholm Convention as part of the original “dirty dozen” and are among the most toxic chemicals known. PBDD/Fs and PBCDD/Fs are similar to their chlorinated counter parts, with bromine substituted in addition to or instead of the chlorine.

The draft risk profile confirms that PBDD/Fs and PBCDD/Fs are generated as by-products in a wide range of processes, including the production of brominated flame retardants (BFRs), during thermal processing of plastics containing BFRs, including during recycling processes, and during waste incineration. A recent review showed that the highest levels of polybrominated diphenyl ethers (PBDEs) and PBDD/Fs in pooled eggs from free-range chickens were detected at sites where e-waste was burned, near waste incineration, metallurgical facilities and at landfills ([Petrlik et al. 2025](#))

Brominated dioxins have also been detected in consumer products, including toys, hair accessories and kitchenware, that were likely made from recycled plastics ([Budin et al. 2020](#), [Behnish et al. 2023](#)). IPEN has also shown that brominated dioxins [contaminate children's toys](#) made from recycled plastics that contain polybrominated diphenyl ethers (PBDEs). The concentrations were similar as concentrations that are found in hazardous wastes.

The draft risk profile shows that they fulfill the criteria for listing in Annex C as they are



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Persistent: As confirmed by BLOWIN modelling, presence of PBDD/Fs and PBCDD/Fs in slices of sediment cores that were deposited several decades ago, as well as lab tests on TeBDDs in five mm layer of soil, which, when exposed to daylight, had a half-life of three to six months.

Bioaccumulate: PBDD/Fs and PBCDD/Fs have log Kow values ranging from 7.0-11.5 and similar uptake and elimination patterns as analogous PCDD/Fs. Their ability to bioaccumulate has been further confirmed in field samples of animals at high trophic levels, including samples from ringed seals and juvenile male pilot whales. PBDD/Fs have also been detected in human tissues, including breast milk, and studies have shown that PBDD/Fs have long elimination half-lives in mammals, further illustrating that these substances are highly bioaccumulative.

Toxic: Brominated dioxins and furans exhibit similar toxic impacts as their chlorinated counterparts, including, among many others, lethality, reproductive effects, immunotoxicity, and carcinogenicity.

Have potential for long-range environmental transport: This is verified both by modeling and environmental monitoring, including sampling in remote regions which has shown the presence of PBDD/Fs in marine mammals such as ringed seals and pilot whales caught around the Faroe Islands. A recent modeling study showed that each of the investigated PBDD/Fs congeners exceed the threshold for POP-like accumulation in remote regions when emitted to air or water. Additionally, it is likely that plastics containing BFRs and other brominated compounds are transported to remote areas where the BFRs in plastics can lead to the formation of dioxins upon exposure to sunlight.

Conclusion: PBDD/Fs and PBCDD/Fs are likely, as a result of their long-range environmental transport, to lead to significant adverse human health and/or environmental effects, such that global action is warranted. They should therefore advance to the risk management (Annex F) stage of evaluation.

Follow-up to the report on persistent organic pollutants in stockpiles, products and articles in use and in wastes

Meeting documents: UNEP/POPS/POPRC.21/7; UNEP/POPS/POPRC.21/INF/14

The 12th Conference of the Parties (COP) welcomed a [report](#) developed by the POPRC on options for identifying persistent organic pollutants in stockpiles, products and



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articles in use, and wastes. In the COP discussions, it was acknowledged that many Parties had encountered challenges in developing appropriate strategies for this. The Annex F information submission has been identified as a key opportunity to gather more comprehensive information. Improved information submissions will also support work to establish low-POPs content levels and the environmentally sound management of wastes.

The POPRC will therefore consider ways to facilitate and enhance the submission of Annex F information, with a focus on information on

- (a) uses of and alternatives to chemicals proposed for listing;
- (b) possible control measures and on the status of control and monitoring capacity;
- (c) POPs in wastes and on implications of disposal.

IPEN recommends that the POPRC strengthen the Annex F submission to gather information that supports

- that recommendations for listings are accompanied by specified means of identification, especially for substances that have associated exemptions, such as mandatory requirements for traceability, (e.g., through labelling of POPs-containing products and/or through making digital information accessible to stakeholders throughout the value chain). [Submissions from countries](#) during the drafting of the POPRC report showed that when traceability of listed POPs is specifically required, the implementation of the Convention improves.
- an improved understanding of the alternatives to provide countries with tools to list chemicals without exemptions, and a thorough evaluation of any proposed exemptions to ensure that any exemptions are limited to narrow, time-limited applications that have been duly justified during the Annex F stage of evaluation to be necessary for the functioning of society, so that the volumes of stockpiles, products in use, and wastes that need to be traced and managed are minimized.

In addition, the INF document (UNEP/POPS/POPRC.21) outlines a few additional actions that can be taken. It notes that the collection and submission of waste and disposal related information may support the work of the committee, there are differences in how note (ii) of part I of Annexes A and B on articles already in use is interpreted and addressed nationally, which has implications for their trade. The POPRC may therefore consider a separate submission round on interpretations of this note.

IPEN supports additional actions to improve compliance with the Convention, including



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- exploring how tools such as the Harmonized Commodity Description and Coding System (HS) and other digital tracking systems can be strengthened and utilized to improve the global identification and traceability of POPs in products, articles, and waste
- improving coherence and reduce fragmentation of information shared, including by sharing information from countries and/or regions with more detailed (8- and 10-digit) HS codes; and
- a strict interpretation and application of note (ii) regarding articles already in use at the time of the Convention listing, to ensure that any transboundary movement of articles containing POPs are transparent, traceable and kept to a minimum.

Matters related to the global monitoring plan for newly listed POPs

Meeting documents: UNEP/POPS/POPRC.21/8; UNEP/POPS/POPRC.21/INF/15

The Stockholm Convention requires a periodic effectiveness evaluation, based on available scientific, environmental, technical and economic information. The POPs global monitoring plan was therefore established to provide the necessary monitoring data. This is a harmonized framework established for “collecting comparable data on persistent organic pollutants in core media, including air, human milk and blood, to assess trends over time and the regional and global environmental transport of persistent organic pollutants.” Global monitoring reports were submitted to COP-4 in 2009, COP-8 in 2017, and COP-1 in 2023. Regional monitoring plans are in preparation for COP-13 in 2027, to be consolidated into a global monitoring report to be submitted to COP-14 in 2029.

Several implementation challenges have been identified, including limited data for many newly listed POPs, analytical complexities, and the absence of long-term and geographically representative baseline data for these. Therefore, a proposal has been put forward to enhance information sharing and exchange between the POPRC and the global coordination group.

IPEN supports:

- The conclusions and recommendations relevant to revising the guidance on the global monitoring plan extracted from the third global monitoring report, as described in ([UNEP/POPS/GCG.14/5](#)). It is essential to build technical capacity for the monitoring and analyses of POPs, including new chemicals, especially in developing countries, and to address the significant data gaps that exist in



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certain regions where data are particularly scarce such as Africa, West Asia and Central Asia.

- Expanding the scope of the global monitoring programme to include additional core media such as monitoring of POPs in:
 - Traditional foods of Indigenous peoples of the Arctic and those of others who are reliant on traditional foods throughout the world, including fish, bird eggs, and marine mammals.
 - Key market foods that are important to the diets of people in regions throughout the world.
 - Microplastics collected around the world, including in remote areas.
 - Products and articles.
 - Urban and indoor air to inform health impact assessments.
 - Water, particularly hydrophilic chemicals such as PFAS in drinking water sources.
- Implementing improved protocols to effectively monitor trends in the distribution of POPs as affected by climate change. It is also necessary to improve methods to distinguish POPs from local sources compared with those derived from long-range transport (e.g., congener-specific analysis, source comparisons, etc.), and to identify hotspots. Monitoring should also include data collection for POPs recommended for listing and those that might warrant listing, to ensure availability of sufficient data for decision-making.

Evaluation and review processes

Meeting documents: UNEP/POPS/POPRC.21/3; UNEP/POPS/POPRC.21/4;
UNEP/POPS/POPRC.21/INF/7; UNEP/POPS/POPRC.21/INF/8;
UNEP/POPS/POPRC.21/INF/9;

Three processes of evaluation and review will be initiated at the POPRC:

- Evaluation of the continued need for the remaining acceptable purpose and specific exemptions for PFOS, its salts and PFOSF
- Review of the specific exemption for the use of PFOI for the production of perfluorooctyl bromide for the purpose of producing pharmaceutical products;
- Review of MCCPs pursuant to paragraph 2 of part XIII of Annex A to the Convention, and of the specific exemptions for MCCPs pursuant to paragraph 12 of part XIII of Annex

The POPRC will discuss and adopt terms of reference, including a work plan, for all these processes.



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Overall, IPEN recommends ending these exemptions and the acceptable purpose. However, if continued exemptions are considered, it is important that:

- They should be rigorously reviewed, and only be for time-limited, narrowly focused, fully justified, and clearly defined applications.
- Industry should be required to provide data with full justification, proof of inability to substitute, and a time frame for removal from the market.
- Any exemptions should be coupled with notes on means of identification to ensure traceability and transparency of the presence of the POP in articles, stockpiles and wastes.

Regarding the fourth evaluation of acceptable purpose and exemptions for PFOS, its salts and PFOSF, and for PFOI, IPEN underscores the need to assess available alternatives broadly and not only consider drop-in replacements, and information must be required to fully describe and justify any continued exemptions. The remaining acceptable purpose for PFOS use in insect baits should be converted to a specific exemption for specified crops of economic importance to spur more rapid adoption of alternatives.

Regarding the review of MCCPs, pursuant to decision SC-12/10 concerning unintentional trace contaminants of specified chloroalkanes in products and articles, IPEN believes that the 3% threshold should be lowered to a maximum of 0.1% for the sum of MCCP congeners, in order to minimize continuing harmful emissions and exposures. It is also not acceptable to have such a vague timeline as indicated in Note (i) of Annex A: “with a view to reducing this limit over time.” This would allow continued production of high volumes of unintentional contaminants indefinitely when innovation should make it possible to eliminate them expeditiously.

We support the categories of information specified in Annex I of the draft terms of reference for the review of medium-chain chlorinated paraffins pursuant to paragraph 2 of part XIII of Annex A to the Convention. However, information must be required to fully describe and justify any continued exemptions. Remaining exemptions should not exceed 5 years rather than extended timelines to 2041.

For further details, see the IPEN brief “[Ending Toxic Exemptions](#)” and the [Guides to the new POPs](#).