



关于持久性有机污染物的 斯德哥尔摩公约

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缔约方大会

第八次会议

2017 年 4 月 24 日至 5 月 5 日，日内瓦

临时议程*项目 5(a)（四）

与执行《公约》有关的事项：

旨在减少或消除源自有意生产

和使用的释放的措施：溴化二苯醚

根据《斯德哥尔摩公约》附件 A 第四和第五部分第 2 段 评估和审查溴化二苯醚

秘书处的说明

一、 导言

1. 《关于持久性有机污染物的斯德哥尔摩公约》附件 A 第四和第五部分第 2 段规定，斯德哥尔摩公约缔约方大会应在其第六次常会及其后每隔一次常会上评估各缔约方在实现消除物品中所含六溴二苯醚和七溴二苯醚、四溴二苯醚和五溴二苯醚¹这一最终目标方面所取得的进展，并审查是否需要为上述化学品继续给予特定豁免。这些段落还规定，特定豁免无论如何最迟将于 2030 年到期。
2. 在 SC-6/3 号决定中，缔约方大会通过了根据附件 A 第四和第五部分第 2 段对溴化二苯醚进行评估与审查的流程（载于该决定的附件），并承诺在第八次会议及其后每隔一次常会上开展评估与审查。
3. 在 SC-7/4 号决定中，缔约方大会通过了评估与审查溴化二苯醚所需的信息的提交格式。在同一项决定中，缔约方大会还请秘书处继续支持 SC-6/3 号决定所载的流程，并在具备资源的前提下支持各缔约方开展活动，收集和提交该流程所需的信息。

* UNEP/POPS/COP.8/1。

¹ 在本说明中，这两组化学品统称为“溴化二苯醚”。

二、执行情况

A. 评估与审查溴化二苯醚的流程

4. 秘书处收集和分析了关于缔约方在消除物品中所含溴化二苯醚方面所取得的进展及对上述化学品继续享受特定豁免的需求方面的信息，包括缔约方使用 SC-7/4 号决定附件所载格式提供的信息。由 38 个缔约方提交的信息可在 UNEP/POPS/COP.8/INF/12 号文件附录 1 查阅。

5. 在对各缔约方提交的信息进行分析的基础上，秘书处根据 SC-6/3 号决定就列入《公约》附件 A 的溴化二苯醚的评估与审查编写了一份报告草案，并提交给持久性有机污染物审查委员会，供其在第十二次会议上审查。该报告编写所用资金部分来自欧洲联盟提供的慷慨的资金支持。报告全文（纳入了委员会的评论意见²）载于 UNEP/POPS/COP.8/INF/12 号文件。该报告的结论突出了报告编写过程中所审查信息的欠缺，这些结论载于本说明附件，未经正式编辑。

6. 为支持各缔约方收集和提交溴化二苯醚评估与审查所需的信息，秘书处在此主题组织的若干能力建设活动中纳入了有针对性的活动，详见秘书处的说明（UNEP/CHW.13/INF/34-UNEP/FAO/RC/COP.8/INF/24-UNEP/POPS/COP.8/INF/22）。

B. 有关溴化二苯醚的成效评估

7. 与溴化二苯醚有关的主要调查结果、结论和建议可参见《公约》成效评估报告执行摘要（UNEP/POPS/COP.8/22/Add.1）第 73 至 75 段。

三、建议采取的行动

8. 缔约方大会不妨通过一项措辞大致如下的决定：

缔约方大会，

注意到关于成效评估的 SC-8[...] 号决定中承认的有关消除物品中所含溴化二苯醚³的需求，

1. 表示注意到秘书处编写的关于溴化二苯醚评估与审查的报告；⁴

2. 认定各缔约方可能仍需按照《关于持久性有机污染物的斯德哥尔摩公约》附件 A 第四和第五部分的规定，利用溴化二苯醚的豁免；

3. 敦促各缔约方加强措施，依照其在《斯德哥尔摩公约》以及《控制危险废物越境转移及其处置巴塞尔公约》下的义务，防止将含有或可能含有溴化二苯醚的废弃物品出口至没有能力以无害环境的方式处置此类废物的国家；

4. 鼓励各缔约方加紧努力，引入并实施适合各国具体情况的技术和措施，对含有溴化二苯醚的废弃物品进行无害环境管理和处置，同时考虑到对含有《斯德哥尔摩公约》所列溴化二苯醚的物品进行回收和

² UNEP/POPS/POPRC.12/11，第 81-82 段。

³ 六溴二苯醚和七溴二苯醚及四溴二苯醚和五溴二苯醚，于 2009 年列入《公约》附件 A。

⁴ UNEP/POPS/COP.8/INF/12。

废物处置的最佳可得技术和最佳环保做法的更新版指导意见⁵，以及针对由六溴二苯醚和七溴二苯醚或四溴二苯醚和五溴二苯醚构成、含有上述化学品或被其污染的废物实行无害环境管理的技术准则；⁶

5. 决定依照《公约》附件A第四和第五部分第2段的规定以及SC-6/3号决定附件所载的流程，在缔约方大会第十次会议上对溴化二苯醚进行评估和审查；

6. 鼓励各缔约方收集有关废物流和回收流中存在含有溴化二苯醚的物品的信息，以及依照《公约》第6条及附件A第四和第五部分的规定并考虑到POPRC-6/2号决定附件所载的有关从废物流中消除溴化二苯醚的建议，确保对上述物品进行无害环境管理而采取的措施的信息，并将此类信息提供给秘书处；

7. 请秘书处：

(a) 继续支持SC-6/3号决定附件所载的流程；

(b) 在具备资源的前提下开展活动，支持各缔约方收集SC-6/3号决定附件所载的流程所需的信息，并支持各缔约方执行各项措施，以促进消除物品中所含的溴化二苯醚；

(c) 向缔约方大会第九次会议汇报依照上文(a)和(b)段开展的活动，包括对流程和（或）格式进行任何修改的建议，供缔约方大会审议并酌情通过。

⁵ 可查阅：

<http://chm.pops.int/Implementation/NIPs/Guidance/GuidanceonBATBEPfortherecyclingofPBDEs/tabid/3172/Default.aspx>。

⁶ UNEP/CHW.12/5/Add.6/Rev.1。

Annex

Conclusions of the report for the evaluation and review of brominated diphenyl ethers listed in Annex A to the Stockholm Convention¹

1. A comprehensive analysis of progress Parties have made towards the aim of eliminating brominated diphenyl ethers² (POP-BDEs) in articles is hampered by a lack of information about relevant measures undertaken in the majority of countries. Few Parties provided information pertaining to POP-BDEs in their third national reports. Only 40 Parties have revised their national implementation plans (NIPs) to reflect therein actions taken or planned to meet the obligations arising from the listing of POP-BDEs under the Convention. Overall, the available information is too incomplete and fragmented to derive reliable estimates of the global flows of articles containing POP-BDEs. Nevertheless, a few Parties have made available in-depth studies about the management of articles containing POP-BDEs at the national level and these provide useful insights into progress achieved and remaining challenges. In addition, information was available from a number of recent studies that attempt to characterize the management of waste electrical and electronic equipment (WEEE) at the regional and global levels. Against this backdrop, the conclusions in the following paragraphs can be drawn.

2. Measures to restrict or prohibit the intentional production and use of POP-BDEs have been adopted in the countries where the largest quantities of articles containing POP-BDEs had been used. Recent data about the presence of POP-BDEs in articles placed on the market in these countries, for assessing the effectiveness of measures taken, is scarce. The available data together with information on levels of POP-BDEs detected in the waste stream indicate a significant decrease in the levels of POP-BDEs in articles in use in developed countries. When POP-BDEs were encountered, their levels were much lower than were used in the past to comply with flammability requirements. On the other hand, low levels POP-BDEs have been detected in a range of articles, including plastic toys that are not subject to flammability requirements, suggesting that their presence was unintentional and possibly a consequence of the recycling of plastics originating from WEEE.

3. The bulk of articles containing POP-BDEs that had been used in developed countries in the past are estimated to have become wastes. Remaining stocks in most developed countries are mainly in buildings where commercial pentabromodiphenyl ether (c-pentaBDE) was used in insulation material. Regulatory controls and the requisite collection and disposal infrastructure to ensure the sound management of waste articles that may contain POP-BDEs are in place in many developed countries, namely those in Western Europe. Much of the wastes that have been collected through official take-back systems have either been disposed of in landfills or incinerated. However, a share of the wastes that may contain POP-BDEs, notably WEEE, is not captured or is diverted from official channels. Some of these wastes are not disposed of in the countries where they have been generated but are exported, sometimes illegally, to developing countries that are not likely to possess the capacity dispose of them in an environmentally sound manner. The exact magnitude of such transboundary flows is unknown.

4. The scale of recycling of articles containing POP-BDEs in developed countries is difficult to estimate. Although several Parties have registered for specific exemptions for such recycling, they have not provided information on the quantities of articles involved. Regulatory actions taken in many developed countries to restrict the permissible levels of POP-BDEs in new articles and to require the separation of materials containing POP-BDEs from waste articles are likely to deter this practice. The extent to which technologies to separate materials that may contain POP-BDEs from the recycling stream have been implemented in countries where this is required is unclear. Economic considerations are perceived to be more important barriers to implementation than technological limitations. The rare studies conducted in European countries to examine the flow of POP-BDEs estimated that up to around 20% of POP-BDEs present in articles end up in the recycling stream. The resulting dilution of

¹ The conclusions are reproduced as set out in the report for the evaluation and review of brominated diphenyl ethers listed in Annex A to the Stockholm Convention contained in UNEP/POPS/COP.8/INF/ 12, which has not been formally edited.

² Hexabromodiphenyl ether and heptabromodiphenyl ether and tetrabromodiphenyl ether and pentabromodiphenyl ether, listed in Annex A to the Convention in 2009.

POP-BDEs into articles will make their management more difficult and reduces the attractiveness of plastic recycling as an option for enhanced resource recovery.

5. The inventory of POP-BDEs undertaken by some developing countries confirms the presence of substantial stockpiles of articles containing POP-BDEs. The longer lifespan of articles in developing countries compared to developed countries implies that articles containing POP-BDEs are likely to remain in use much longer and enter the waste stream later. In addition, the considerable quantities of used and waste electrical and electronic equipment (EEE) that have been and continue to be exported from developed countries contribute to the burden of waste articles containing POP-BDEs in developing countries. Information about how much of such wastes still await disposal is scarce and likely to vary among countries depending on their use and import history. The quantities of imported used and waste EEE are difficult to estimate and may not be captured in national inventories of POP-BDEs.

6. The lack of capacity of developing countries to ensure the environmentally sound management of waste articles that may contain POP-BDEs is a major impediment to progress in eliminating such articles. The elements necessary to ensure the environmentally sound management of WEEE and end-of-life vehicles (ELV) do not exist in the majority of developing countries. Take-back systems are in their infancy in some countries such as China and capture a small share of generated wastes. The collection of such wastes is typically carried out by operators from the informal sector. There are few reports from developing countries of facilities that meet the requirements for the environmentally sound disposal of wastes containing POP-BDEs established under the Basel Convention. Materials that may contain POP-BDEs, i.e. plastics from WEEE and foam from ELV, are commonly either disposed of or recycled under adverse conditions.

7. The sound management of the categories of articles that contain brominated diphenyl ethers will remain a pressing concern for Parties to the Stockholm Convention not only because of the risks posed by the presence of POP-BDEs in remaining stocks and wastes but also because these categories of articles also contain decabromodiphenyl ether (decaBDE). The latter has been encountered at higher levels and more frequently in articles in use and in waste articles than the brominated diphenyl ether congeners already listed under the Stockholm Convention. This pattern is consistent with the higher total quantity of decaBDE used in the manufacture of articles and the more recent phase-out date in developed countries.

8. An understanding of existing stocks of articles that may contain POP-BDEs and their flow to the wastes stream at the national level, and of existing practices to manage waste articles, is important for devising appropriate measures to eliminate POP-BDEs contained in articles. For developed countries, improved understanding can help determine whether existing controls are effective and how to reduce diversion of waste articles from official channels. For developing countries, such understanding is needed to put in place the necessary controls and management systems and to inform capacity building efforts. The process of updating and revising their NIPs presents an opportunity for Parties to assess efforts made and further action needed to achieve the ultimate objective of eliminating POP-BDEs that are contained in articles. Besides addressing information gaps, efforts at the current juncture should also focus on taking action to tackle the worst of potential problems attributable to the presence of POP-BDEs contained in articles and their wastes, including in developing countries, through measures that are adapted to national specificities and capabilities.
