



环境署

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控制危险废物越境转移及其处置巴塞尔公约  
缔约方会议  
第九届会议  
2008年6月23—27日，巴厘  
临时议程\* 项目7(h)  
缔约方大会第八届会议各项决定的执行情况：  
技术事项

## 持久性有机污染物

### 秘书处的说明

#### 一. 持久性有机污染物无害环境管理技术准则

##### A. 导言

1. 在其第八届会议上做出的第VIII/16号决定中，缔约方大会，除其他事项外，通过了关于持久性有机污染物的各项技术准则，并请秘书处向各方分发。
2. 在其第VIII/16号决定第8段中，缔约方大会邀请各缔约方和其他各方针对该项决定的7(b)和(c)项中所论及的相关议题向秘书处提交评论意见。<sup>1</sup>

##### B. 执行情况

3. 在履行第VIII/16号决定第4段中规定的任务过程中，秘书处于2007年4月间向关

\* UNEP/CHW.9/1。

<sup>1</sup> 控制危险废物越境转移及其处置巴塞尔公约缔约方大会第八届会议报告(UNEP/CHW.8/16\*)。

于持久性有机污染物的斯德哥尔摩公约缔约方大会第三届会议转交了第VIII/16号决定、以及各项相关的技术准则，供其审议。斯德哥尔摩公约缔约方大会在该届会议上通过了关于旨在减少或消除废物排放的措施问题的第 SC-3/7号决定。

4. 应以上第2段中所述及的第VIII/16号决定中所列邀请，欧洲共同体及其各成员国、日本和挪威分别提交了评论意见。这些评论意见均已一并登入《巴塞尔公约》的网页 (<http://www.basel.int/techmatters/code/comments.php?guidId=55>)。不限成员名额工作组在其2007年9月间的第六届会议上审议了这些评论意见。

5. 不限成员名额工作组在该届会上通过了第 OEWG-VI/5号决定，其中除其他事项外，邀请各缔约方和其他各方最迟于2008年1月31日向秘书处提交其对第VIII/16号决定第7(a)和(b)分段中论及的各项相关议题的评论意见。

6. 截至2008年2月29日止，已分别从欧洲共同体及其各成员国、挪威、以及法国废物管理服务联合会收到了评论意见。这些评论意见现列于本说明的附件一<sup>2</sup>并已全部登入《巴塞尔公约》的网页，供各缔约方和其他利益攸关方审议 (<http://www.basel.int/techmatters/code/comments.php?guidId=61>)。在编写本说明之际，尚未从依照不限成员名额工作组第 OEWG-I/4号决定设立的持久性有机污染物问题闭会期间小型工作组的各位成员收到任何进一步的评论意见。

7. 第VIII/16号决定在其第5段中邀请“各缔约方和其他各方着手采用这些技术准则，并在缔约方大会第九届会议举行之前提前两个月通过秘书处提交关于其在采用这些准则过程中取得的经验的报告，其中包括在适用低持久性有机污染物含量的定义及销毁和永久性质变程度、并介绍说明在此过程中遇到的任何困难或障碍，以期视需要对之加以改进”。截至2008年3月26日止，尚未从缔约方收到任何关于在采用这些准则方面的经验的评论意见。

## 二. 对持久性有机污染物条目的修正

### A. 导言

8. 缔约方大会通过了关于持久性有机污染物技术问题的第 VIII/16号决定。在该项决定的第8段中，缔约方大会邀请各缔约方和其他各方向秘书处提交其对该项决定的第 7 (c)分段中论及的相关议题的评论意见。

### B. 执行情况

9. 应以上第8段中所述第 VIII/16号决定中发出的邀请，欧洲联盟及其各成员国和挪威已向秘书处提交了评论意见。这些评论意见现列于本说明的附件二。<sup>3</sup>不限成员名额工作组已在其2007年9月的第六届会议上审议了这些评论意见。

10. 在其第OEWG-VI/9决定中，不限成员名额工作组进一步邀请各缔约方和其他各方最迟于2008年2月29日针对这一议题发表评论意见。截至2008年3月26日止，

<sup>2</sup> 为节省经费，附件仅以英文分发，且未对之作任何正式编辑整理。

<sup>3</sup> 为节省经费，附件仅以英文分发，且未对之作任何正式编辑整理。

尚未从持久性有机污染物问题闭会期间小型工作组成员收到任何此种评论意见。

### 三. 斯德哥尔摩公约最佳可得技术订正准则草案和最佳环境实践暂行指南

#### A. 引言

11. 在其第 VIII/16号决定第11段中，缔约方大会欢迎《斯德哥尔摩公约》下属各机构正在审议关于无意生成的持久性有机污染物的最佳可得技术和最佳环境实践问题，其中包括那些各项相关的一般性技术准则之中的新型销毁和永久性质变技术，并邀请《巴塞尔公约》的各位专家对此项工作做出贡献。

#### B. 执行情况

12. 在其2007年9月的第六届会议上，不限成员名额工作组通过了第OEWG-VI/6号决定，其中请依照第OEWG-I/4号决定设立的小型闭会期间工作组，计及在不限成员名额工作组第六届会议上开展讨论的情况、以及各缔约方针对《斯德哥尔摩公约》第 SC-3/5号决定提交的评论意见，<sup>4</sup> 审议最佳可得技术订正准则和最佳环境实践暂行指南所涉废物问题，<sup>5</sup> 特别是其中标题为“废物管理方面的考虑因素”部分。该项决定还进一步请小型闭会期间工作组通过秘书处向缔约方大会汇报此项工作取得的结果，供其第九届会议审议。此外，还邀请各缔约方和其他各方最迟于2008年2月29日就下列事项向秘书处提交其意见和看法：是否需要邀请《斯德哥尔摩公约》各相关下属机构酌情针对关于由持久性有机污染物构成、含有此种污染物或受其污染的废物无害环境管理一般性准则增订文本中所列废物制定关于持久性有机污染物含量的销毁和永久性质变的最佳可得技术准则和最佳环境实践指南。

13. 截至2008年3月26日止，秘书处尚未收到依照第OEWG-VI/6号决定提交的任何评论意见。

#### C. 提议采取的行动

14. 缔约方大会或愿通过一项涉及以上第一、二和三节所述内容的、措辞大致如下的决定：

*缔约方大会，*

*回顾 第VIII/16号决定，*

1. *邀请* 缔约方和其他各方采用这些技术准则，并最迟于缔约方大会第十届会议举行之前提前两个月通过秘书处向缔约方大会汇报其各自在适用持久性有机污染物无害环境管理技术准则方面取得的经验，其中包括在采用低持久性有机污染物含量的定义及销毁和永久性质变的程度、以及在此过程中所遇到的困难或障碍，以期视需要对之加以改进；

<sup>4</sup> UNEP/CHW/OEWG/6/6, 附件。

<sup>5</sup> UNEP/POPS/COP.3/INF/4。

2. *商定* 应把下列各项内容列入不限成员名额工作组2009—2010年工作方案之中：

(a) 审查和增订各项持久性有机污染物技术准则，其中酌情包括关于低持久性有机污染物含量以及销毁和永久性质变的定义；

(b) 在持久性有机污染物含量低于低持久性有机污染物含量时，针对那些可能会对人类健康和环境构成高风险的领域，特别是通过食物链和土壤形成的此种高风险，进一步审议关于其他处置方法的指南；

(c) 审议拟对《巴塞尔公约》附件八中关于多氯二苯并对二恶英和多氯二苯并呋喃的条目A4110、以及关于持久性有机污染物和滴滴涕的其他相关条目进行的修正，以便把这些持久性有机污染物的相关浓度数值列入其中；

3. *邀请* 各缔约方和其他各方最迟于2008年9月30日向秘书处提交其针对以上第2(b)和2(c)分段内容的评论意见；

4. *还邀请* 《巴塞尔公约》的专家对那些正在审议关于无意生成的持久性有机污染物所涉最佳可得技术和最佳环境实践的《斯德哥尔摩公约》下属机构所开展的工作做出贡献，其中包括对列于持久性有机污染物一般性准则中的新型销毁和永久性质变技术方面的工作提供投入；

5. *决定* 延长依照第OEWG I/4 号决定设立的小型闭会期间工作组的任务规定，以便继续监测和协助酌情审查和增订关于持久性有机污染物的各项相关技术准则，尤应采用电子方式开展此方面的工作；

6. *请* 小型闭会期间工作组审议以上第 3 段中所述及的评论意见，并通过秘书处向不限成员名额工作组及缔约方大会第十届会议汇报其在此方面的工作结果，供其审议。

## Annex I

### Comments submitted by Parties and others as per subparagraphs 7 (a) and (b) of decision VIII/16

#### European Community and its Member States

In its submission from 6 June 2007 to the Secretariat of the Basel Convention the EU made no suggestions for further guidance in this priority area. However, the European Commission conducted a study on waste related questions of the European legislation on POPs (BIPRO 2005 [http://ec.europa.eu/environment/waste/studies/pdf/pops\\_waste\\_full\\_report.pdf](http://ec.europa.eu/environment/waste/studies/pdf/pops_waste_full_report.pdf) <[http://ec.europa.eu/environment/waste/studies/pdf/pops\\_waste\\_full\\_report.pdf](http://ec.europa.eu/environment/waste/studies/pdf/pops_waste_full_report.pdf)>).

The study calculated a worst case scenario for a critical PCDD/PCDF contamination level arising from waste recovery (BIPRO 2005, pg. 349 f.). Referring to other studies which have shown a strong relation to exist between elevated contamination in soil and contamination levels in free-range eggs it comes to the result that health risks might not be excluded when wastes exceeding a concentration of 1 µg/kg TEQ PCDD/PCDF are recovered by application to soil. The study states that these risks can be avoided when the waste is solidified/stabilised in case it is destined for application on soil (BIPRO 2005, pg. 357).

#### Norway

It is our view that the present levels for low POPs should stay provisional, pending further work and scientific data, such as more knowledge on the impact caused by materials and soils with the current levels of low POP.

The present levels for low POP content might be used as a starting point for levels for when wastes are characterized as hazardous waste, but we believe the levels for low POP content should probably be different and lower than the levels used for waste characterization. Lower levels might be necessary to ensure that waste with low POP content do not pose a risk to human health and the environment, i.e., through the soil and the food chain.

Also, the destruction levels for POPs waste should be such as to ensure that products from the destruction process do not exhibit the characteristics of POPs. In the present guidelines such levels have not been defined. Therefore, the present guidelines should be revised to ensure that products from the destruction process, e.g. bottom ashes from incinerators, which may pose risks to the environment and human health, is disposed of in an environmentally sound manner.

In Norway there are currently a number of activities going on that are relevant both to 7 (a) and 7 (b).

Firstly there is a project on developing new classes for characterization of soil, which will give actors in the waste market guidance on which levels of contamination will make soil unsuitable for certain applications. This is to ensure that applications of soil do not pose a risk to human health and the environment through the soil and the food chain.

Secondly we plan to work on developing levels for low POP content and levels for destruction and irreversible transformation in soils and other relevant materials. Norway will work towards presenting some results and suggestions at the planned OEWG meeting in 2009.

We would also welcome input and work done by others in this important field.

In the light of these considerations, we propose that the Basel Convention do further work to review the POP guidelines. However, if no new data is presented for COP 9, further work on this topic could be postponed until the OEWG meeting in 2009.

## **French Federation of Waste Management Services**

FNADE, French Federation of Waste Management Services, wishes to propose the following amendments to the General Technical Guidelines<sup>6</sup> on POPs pursuant to Decision VIII/16 of the Basel Convention and more specifically in the catalogue of technologies listed to treat wastes exceeding the “low pop” thresholds. These suggestions follow recent news related to two of the listed processes, notably: waste-to-gas conversion (Section G.2.1, p.43) and permanent storage in underground mines and formations (Section G.3.b, p.45). As the General Technical Guidelines are cross-referenced in a number of other legal texts, we invite the Secretariat of the Basel Convention to communicate any accepted changes to the relevant competent authorities, in particular the Secretariat of the Stockholm Convention.

### **1. Deletion of the Sustec Schwartze Pump (SVZ) and the reference to R3<sup>7</sup> in the General Technical Guidelines**

Justification: At the Basel Convention COP 8 in Nairobi, Parties to the Basel Convention adopted to add waste-to-gas conversion (Section G.2.1, p.43) because of the existence of a commercial reference by SVZ company. This addition required the broadening of the legal framework of the General Technical Guidelines to include R3 as the process was a recovery process; in this precise case limited to gasification of wastes contaminated with PCBs (up to 500 mg/kg waste) and PCDDs/PCDFs (up to 50.000 ng TEQ/kg).

In September 2007, a press release from SVZ<sup>8</sup> announced its bankruptcy and closure of the only facility of this kind. This definitive closure of the only commercial reference must be reflected in the General Technical Guidelines by its deletion but also in the reference made to R3 as a possible recovery option for POP wastes.

Taking into account this modification, the Secretariat of the Basel Convention should inform the BAT/BEP expert group to the Stockholm Convention. This expert group, in acting in conformity with Decision SC-3/5<sup>9</sup>, is updating the guidelines on the Best Available Techniques and provisional guidance on the Best Environmental Practices<sup>10</sup> (BAT/BEP Guidelines) which refers to the General Technical Guidelines. Furthermore, the European Community, in its letter to the Secretariat of the Stockholm Convention<sup>11</sup>, asked specifically to broaden the assessment framework of the BAT/BEP guidelines to techniques listed in the General Technical Guidelines making specific reference to R3. We are in favourable to such a broadening with the exception of the reference to R3 as reflected in the above remarks.

### **2. Strengthening of the assessment and risk management measures for the permanent storage in underground mines and formations when neither destruction nor irreversible transformation are the environmentally preferable option (Section G.3, p.44).**

Permanent storage in underground mines and formations, like storage in specially designed landfills, may deliver the best solution with a high level of protection and at a moderate cost.

However, the sitting of such operations needs careful assessment in particular on the long-term behaviour of the geological formations and the wastes that they are destined to contain, and this well beyond the operating period of the facility.

Specially engineered landfills, as operated in France and in the Netherlands, couple active and passive barriers at the facility with the prior stabilisation of the waste.

<sup>6</sup> Updated General Technical Guidelines for the Environmentally Sound Management of waste consisting of, containing or contaminated with Persistent Organic Pollutants (POPs)

<sup>7</sup> <http://www.basel.int/text/con-e-rev.doc>

<sup>8</sup> <http://www.svz-gmbh.de/GB/Seiten/rahmnew.html>

<sup>9</sup> [http://www.pops.int/documents/meetings/cop\\_3/meetingdocs/report/COP3\\_report\\_en.doc](http://www.pops.int/documents/meetings/cop_3/meetingdocs/report/COP3_report_en.doc)

<sup>10</sup> UNEP/POPS/EGBATBEP.2/4.

<sup>11</sup> Submission of the EC related to SC-3/5 of the Stockholm Convention

Such features deliver the highest levels of safety in all circumstance. Should a leak occur and require an intervention into the facility, this can be done safely. This reversibility of the installation is an intrinsic part of the risk assessment study of the installation and operational and post-closure risk management measures.

The recent case of water leakage in a salt mine in Asse, near Hanover, points to a certain short-sightedness of the risk assessment that has characterised this waste management method. For years it has been promoted as the solution offering the best environmental performance because of the intrinsic isolation from the biosphere offered by underground mines and formations, and this for thousands of years.

However, since 1988, brines have appeared in this mine, forcing operators to pump to the surface increasing volumes of brine effluent. The surface level above the mines galleries has subsided by 5 meters which may have caused cracks in the geological formation making it permeable. Experts estimate it will take 25 years to salvage the waste from the mine. The cost of such remediation is estimated as 2, 4 billion €

This case illustrates the need to integrate these risks at the outset of the impact assessment of the facility. FNADE proposes the following modifications to the General Technical Guidelines (in bold) in order to prevent such occurrences in the future.

**b) Permanent storage in underground mines and formations**

309. The following should be considered in the selection of permanent storage for disposal of wastes consisting of, containing or contaminated with POPs:

- (a) Caverns or tunnels used for storage should be completely separated from active mining areas and areas that maybe reopened for mining;
- (b) Caverns or tunnels should be located in geological formations that are well below zones of available groundwater or in formations that are completely isolated by impermeable rock or clay layers from water-bearing zones;
- (c) Caverns and tunnels should be located in geological formations that are extremely stable and not in areas subject to earthquakes. This stability shall be assessed by an environmental risk assessment study of the operation which integrates the irreversible nature of disposal in such formations;
- (d) Waste shall be preliminary stabilised to ensure that the stability of waste may provide adequate safeguards even in the event of a failure of the operation;
- (e) Ambient temperature of salt mines shall be integrated in the long-term assessment of disposed substances. Volatilisation of certain substances may cause their return to the biosphere in gaseous form.

## Annex II

### Comments received from Parties and others pursuant to subparagraph 7 (c) of decision VIII/16

#### European Union and its Member States

The EU is of the view that introducing a concentration level for PCDDs and PCDFs in entry A4110 should be a priority. At this stage however the EU is not in a position to make a concrete suggestion.

For the relevant entries relating to pesticide POPs (as well as HCB as an industrial chemical) and DDT, introducing the concentration levels which are the provisional definitions for low POP content could be the starting point of the discussion.

In general, introducing such concentration levels would lead to clear guidance as regards application of the relevant legislation and its enforcement, including the application of the export prohibition, and may lead to a higher level of environment and health protection.

Relevant entries with regard to PCDD/PCDF, in addition to A4110, may be the entries listed in paragraph 29 of the technical guidelines on unintentionally produced PCDDs, PCDFs, HCB and PCBs.

Relevant entries with regard to pesticide POPs (as well as HCB as an industrial chemical) may be the entries listed in paragraph 50 and 51 of the technical guidelines on the eight pesticides POPs and HCB as an industrial chemical.

Relevant entries with regard to DDT may be the entries listed in paragraph 18 of the technical guidelines on DDT.

Inter alia the following contents of a Commission study<sup>12</sup> may be relevant in this context:

- (a) In the EU, wastes with a PCDD/PCDF content between 1 and 15 µg TEQ/kg amounts to about 2.2 million tonnes. These wastes are mainly assigned to the European Waste List chapters 10 (thermal processes in metal industry) and 19 (waste incineration). The percentage of waste with a PCDD/PCDF content below 15 µg TEQ/kg is about 89%, whereas the percentage of waste with a PCDD/PCDF content below 1 µg TEQ/kg is about 80%.
- (b) With regard to PCB, there is a dominating role of large PCB-containing equipment with a PCB content above 50 mg/kg.
- (c) Information about POPs pesticides concentration levels is scarce. The available data suggests that the POP contents are either significantly higher than the 50 mg/kg or below 10 mg/kg.

#### Norway

Norway welcomes further work in this area and suggests discussions on this issue at the OEWG meeting in September.

In general, introducing such concentration levels would lead to clear guidance as regards the development, implementation and enforcement of the relevant legislation, including the export prohibition, and lead to a higher level of environment and health protection.

The opinion of Norway is that the present provisional levels for low POP content are too high and do not fulfil the provisions in article 6 under the Stockholm convention. The present levels for low POP content could be used as a starting point for levels for when wastes are

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<sup>12</sup> Study to Facilitate the Implementation of Certain Waste Related Provisions of the Regulation on POPs; see <http://ec.europa.eu/environment/waste/studies/index.htm>



characterized as hazardous. The levels for low POP content should be different and lower than levels for when materials are characterized as hazardous. This to ensure that waste with low POP content do not pose a risk to human health and the environment, inter alia, through the soil and the food chain.

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