



# The Stockholm Convention and uPOPS from Open Burning

Photo credit: Eddie Mbuyi/OXFAM



- Each Party shall take measures to **reduce the total releases** derived from anthropogenic sources of each of the chemicals listed in Annex C with the goal of their
  - continuing minimization  
**and, where feasible,**
  - ultimate elimination



- Annex C: Which are the uPOPs of concern?

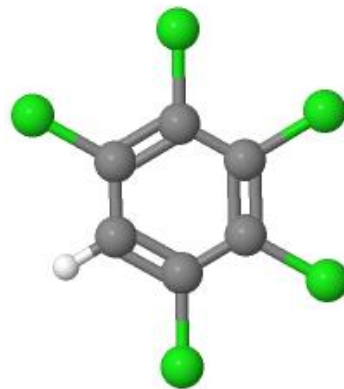
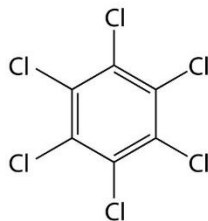
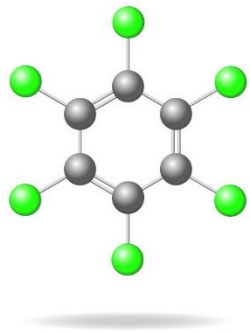
## Chemical

Hexachlorobenzene (HCB) (CAS No: 118-74-1)

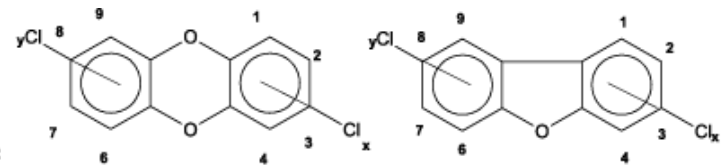
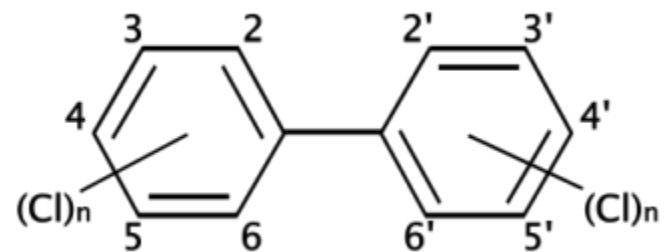
Pentachlorobenzene (PeCB) (CAS No: 608-93-5)

Polychlorinated biphenyls (PCB)

Polychlorinated dibenzo-*p*-dioxins and dibenzofurans (PCDD/PCDF)



ChemEssen.c



PCDD

PCDF

# BAT and BEP relevant to article 5 and annex c

Obligations pursuant to Article 5 of the Stockholm Convention on persistent organic pollutants

Develop an action plan to minimize or eliminate releases of Annex C POPs

- Inventory of sources and releases of Annex C POPs;
- Evaluation of efficacy of laws and policies to address such releases;
- Identification of priority source categories;**
- Strategies and measures with timelines to achieve continuing minimization and where feasible, ultimate elimination of Annex C POPs, **considering the guidelines on BAT and guidance on BEP** and the identified priority source categories.

Phase in **requirements for BAT and promote BEP for new sources within priority sources categories**, promote use of BAT and BEP for existing sources

Review of the strategies and their success in meeting the obligations if Article 5

Two years after the Convention enters into force for the Party

Four years after the Convention enters into force for the Party

Every five years thereafter

# Guidance

Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs under Article 5 of the Stockholm Convention on Persistent Organic Pollutants (<http://toolkit.pops.int/>)

Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutants (<http://chm.pops.int/Implementation/BATBEP/BATBEPGuidelinesArticle5/tabid/187/Default.aspx>)



## The guidance document consists of six main sections:

- **Sections I – IV: Introductory**
- **Sections V-VI: Source specific**
  - Section V: Annex C Part II Sources
  - Section VI: Annex C Part III Sources





## Source categories



### Part II:

- (a) Waste incinerators;
- (b) Cement kilns firing hazardous waste;
- (c) Production of pulp using elemental chlorine
- (d) Thermal processes; in the metallurgical industry



## Source categories



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### Part III:

The chemicals under Annex C may also be unintentionally formed and released from:

Open burning of waste, including burning of landfill sites;

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## A. Open burning of waste, including burning of landfill sites

### Other sources:

- A. Thermal processes in the metallurgical industry not mentioned in Part II;
- B. Residential combustion sources;
- C. Fossil fuel-fired utility and industrial boilers;
- D. Firing installations for wood and other biomass fuels;
- E. Specific chemical production processes releasing unintentionally released POPs;
- F. Crematoria;
- G. Motor vehicles, particularly those burning leaded gasoline;
- H. Destruction of animal carcasses;
- I. Textile and leather dyeing (with chloranil) and finishing (with alkaline extraction);
- J. Shredder plants for the treatment of end of life vehicles;
- K. Smoldering of copper cables;
- L. Waste oil refineries



## What is **open burning of waste**?

“Combustion of unwanted combustible materials such as paper, wood, plastics, textiles, rubber and other debris in nature (open air) or in open dumps, where smoke and other emissions are released directly into the air without passing through a chimney or stack”<sup>1</sup> and generating the chemicals under Annex C of the Stockholm Convention and numerous other pollutants of incomplete combustion.



## What are the measures under Art. 5?

- **Action Plan:** evaluation of current and projected releases; laws and policies; strategy; awareness-raising and capacity building; periodical reviews and implementation.

***Action Plan** designed to identify, characterize and address the release of the chemicals under annex C*



- **Promotion of measures** to reduce or eliminate the chemicals under Annex C.
- **Promote/require substitutes** or modified materials, products and processes to prevent formation and release.
- **Promote and require** (when applicable in accordance with Action Plan) BEP and BAT:
  - ✓ For existing sources under Part II **and III** of Annex C;
  - ✓ For new sources under Part III of Annex C that have not been addressed.



In conclusion....

**What are the requirements of the Stockholm Convention on uPOPs from open burning?**



**TAKE  
ACTION NOW**



## 1. Learn about the real situation

**Action Plan** “designed to identify, characterize and address the release” of UPOPs listed in Annex C.



Preparation of inventory of UPOPs sources and the estimation of releases from those sources (critical component for compliance).

## 2. Prioritize

Prioritize uPOPs sources and devise action plans to minimize and/or eliminate UPOPs releases.

E.g. modifying, enforcing or establishing laws, policies and regulations; creating partnerships.

## 3. Achieve BEP and apply BAT

- ✓ Keeping and maintaining records of waste generated, treatment and disposal modes
- ✓ Health and safety for workers in potentially high emission facilities
- ✓ enacting local authority By- laws and practices of
- ✓ handling waste





**THANK YOU  
FOR YOUR  
ATTENTION**

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