

Guidance document on BAT for  
controlling emissions of heavy  
metals and their compounds from the  
source categories covered by the  
Protocol on Heavy Metals under the  
UNECE Convention on Long-range  
transboundary Air Pollution

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## Protocol on Heavy Metals (adopted 1998)

- Covers Cd, Pb, Hg
- Basic obligation to reduce annual emissions from reference year (1990) from source categories covered by the protocol
- Requirement to apply BAT and specified ELVs (mostly dust) or alternative emission reduction strategies that achieve equivalent emission levels
- Technical guidance on BAT to help Parties meet their Protocol obligations

## Revised Protocol on Heavy Metals agreed in December 2012

- Technical descriptions of BAT was taken out of the protocol (Annex III) and made into a guidance document
  - in force since 9 January 2014
- Slim document with short concise descriptions of main emission sources, control techniques, reduction efficiencies and, where available, related costs for each source category



## Guidance document on BAT to control emissions of Cd, Pb and Hg

- Introductory section with general options and control techniques for reducing HM emissions cross sectors
- Sections with specific information on the source categories

## Guidance document on BAT to control emissions of Cd, Pb and Hg

- General options for reducing HM:
  - low-emission process technologies
  - Change or preparation of raw material and/or fuel
  - best management practices
  - off-gas cleaning - dust (Cd, Pb) and Hg

Monitoring of abatement procedures and emission inventories are necessary to ensure desired results and effective emission reduction

## Source categories in HM Protocol

- Combustion installations fired with fossil fuels
- Primary and secondary iron and steel industry
- Iron and steel foundries
- Primary and secondary non-ferrous metal industry
- Cement industry
- Glass industry
- Chlor-alkali industry
- Municipal, medical and hazardous waste incineration

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Available in English, Russian and French at  
[www.unece.org/environmental-policy/treaties/air-pollution/guidance-documents-and-other-methodological-materials/protocol-on-heavy-metals](http://www.unece.org/environmental-policy/treaties/air-pollution/guidance-documents-and-other-methodological-materials/protocol-on-heavy-metals)



*Thank you !*