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**United Nations
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**Conference of the Parties to the
Minamata Convention on Mercury
First meeting**

Geneva, 24–29 September 2017

Item 6 (i) of the provisional agenda*

**Matters stipulated by the Convention for action by
the Conference of the Parties: the guidance on the
management of contaminated sites referred to in
paragraph 3 of article 12**

**Guidance on the management of contaminated sites referred to
in paragraph 3 of article 12**

Note by the secretariat

1. Paragraph 3 of article 12 of the Minamata Convention on Mercury, on contaminated sites, provides that the Conference of the Parties shall adopt guidance on managing contaminated sites that may include methods and approaches for:

- (a) Site identification and characterization;
- (b) Engaging the public;
- (c) Human health and environmental risk assessments;
- (d) Options for managing the risks posed by contaminated sites;
- (e) Evaluation of benefits and costs;
- (f) Validation of outcomes.

2. At its sixth session, the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury considered the issue of guidance on contaminated sites and deferred consideration of the issues to its seventh session. At its seventh session, the committee requested the secretariat to consult and seek input from Governments, the relevant secretariats in the chemicals and waste cluster and other stakeholders on guidance documents or recommendations in relation to the management of mercury-contaminated sites. The committee requested the secretariat to prepare a compilation to be used as a basis for a draft guidance document on the management of mercury-contaminated sites, an outline of its structure and content, and a road map for consideration by the Conference of the Parties at its first meeting, using the submitted documents as the basis of its work and including the elements described in paragraph 3 of article 12, also taking into account paragraph 4 of article 12.

3. The interim secretariat invited Governments and others to provide information on guidance documents or other recommendations in relation to the management of mercury-contaminated sites. The submissions received have been published on the Convention website

* UNEP/MC/COP.1/1.

(www.mercuryconvention.org/Negotiations/submissionsforCOP1/tabid/5535/Default.aspx). To address the first part of the request from the committee, the interim secretariat has extracted information relating to guidance documents on the management of contaminated sites made available through this submission process, and compiled them as a ready reference source for those commencing activities relating to contaminated sites. The compilation, with links to the relevant guidance documents, is provided as annex II to the present note. The outline of the structure and content of the guidance document and the road map for the preparation of the guidance document are provided, respectively, as annexes III and IV. A draft decision on guidance on managing contaminated sites is provided as annex I.

Suggested action by the Conference of the Parties

4. The Conference may wish to consider further work on the guidance on managing contaminated sites, basing its work on the outline of the structure and content of guidance on contaminated sites, and using the draft road map as a basis for organizing such work.

Annex I

Draft decision MC-1/X: Guidance on the management of contaminated sites

The Conference of the Parties

Agrees to the development of draft guidance on managing contaminated sites in line with the programme of work as set out in the road map provided as annex [--] to this decision, and building on the draft structure and content provided in annex [--] to this decision.

Annex II

Compilation of information submitted on guidance documents or recommendations in relation to the management of mercury-contaminated sites

Canada

- *Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment*
 - *Volume I: Guidance Manual* (Canadian Council of Ministers of the Environment, 2016). Available from http://www.ccme.ca/en/files/Resources/csm/Volume%201-Guidance%20Manual-Environmental%20Site%20Characterization_e%20PN%201551.pdf
 - *Volume II: Checklists* (Canadian Council of Ministers of the Environment, 2016). Available from http://www.ccme.ca/en/files/Resources/csm/Volume%202-Checklists-Environmental%20Site%20Characterization_e%20PN%201553.pdf
 - *Subsurface Assessment Handbook for Contaminated Sites* (Canadian Council of Ministers of the Environment, 1994). Available from http://www.ccme.ca/files/Resources/csm/pn_1144_e.pdf
 - *Canada–Ontario Decision-Making Framework for Assessment of Great Lakes Contaminated Sediment* (Environment and Climate Change Canada and Ministry of Environment, 2008). Available from http://publications.gc.ca/collections/collection_2010/ec/En164-14-2007-eng.pdf
 - Guidance and orientation for the selection of technologies (Public Works and Government Services Canada/National Research Council, 2012; registration required). Available from http://gost.irb-bri.cnrc-nrc.gc.ca/hm.aspx?ind_lang=en
 - Federal Contaminated Sites Portal Decision-Making Framework (2013). Available from <http://www.federalcontaminatedsites.gc.ca/default.asp?lang=En&n=B15E990A-1>
 - Sustainable development analysis tool (Public Services and Procurement Canada, 2016). Available from <http://sdat.pwgsc.gc.ca/index.aspx?lang=eng>
 - *Guidance for Site Closure Tool for Federal Contaminated Sites: Federal Contaminated Sites Action Plan* (2012), including the tool for risk assessment validation. Available from <http://www.federalcontaminatedsites.gc.ca/default.asp?lang=En&n=B15E990A-1>

Canadian provincial or territorial guidance

- British Columbia: guidance and resources. Available from <http://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/guidance-resources>
- Northwest Territories: *Environmental Guideline for Contaminated Site Remediation*. Available from <https://mvlwb.com/sites/default/files/documents/Environmental-Guideline-for-Contaminated-Site-Remediation.pdf>
- Québec: *Guide d'intervention: Protection des sols et réhabilitation des terrains contaminés* [Response Guide: Soil Protection and Contaminated Land Rehabilitation]. Available from <http://www.mddelcc.gouv.qc.ca/sol/terrains/guide-intervention/index.htm>

European Union

- *Guidelines on Best Environmental Practices for Environmentally Sound Management of Mercury Contaminated Sites in the Mediterranean* (Mediterranean Action Plan/United Nations Environment Programme). Available from <https://wedocs.unep.org/rest/bitstreams/45236/retrieve>

- Final Report of the Remediation of Mercury Contaminated Sites Sino-German Workshop (2008). Available from https://www.grs.de/sites/default/files/pdf/Remcosite_2008_Chemieabfaelle_0.pdf
- ImaHg project – Improved management of Hg soil contamination – final-workshop-overheads (2013), more info available at http://snowmannetwork.com/?page_id=256
- Mercury Contaminated Sites – Network for Industrially Co-ordinated Sustainable Land Management in Europe, Technical Meeting Summary Paper (2012). Available from http://www.nicole.org/pagina/19/Workshop_Reports.html
- Mercury contaminated land management – State of the Art – NICOLE Mercury Working Group Paper (2012). Available from http://www.nicole.org/pagina/22/Thematic_Documents.html
- Kocman, D., Horvat, M., Pirrone, N. and Cinnirella, S. (2013). “Contribution of contaminated sites to the global mercury budget”. *Environmental Research*, 125: 160–170. Doi:10.1016/j.envres.2012.12.011
- Kovalick, Walter W., Jr. and Montgomery, Robert H. (2014). *Developing a Program for Contaminated Site Management in Low and Middle Income Countries*. Washington, D.C., World Bank Group.
- Sustainable Management of Contaminated Land in the EU: An Overview. Contaminated Land Rehabilitation Network for Environmental Technologies (CLARINET) (2002).
- Provision of remedial solutions for the Boroo mercury contaminated site and recovery of mercury, by the CTNDM Mercury Technological Centre and Emgrisa in Spain in cooperation with Polyeco in Greece from July 2015 to December 2016. Monitoring of surface and groundwater for the remediation of mercury-contaminated soils (i.e., phytoremediation, mercury fixation and zero-valent iron nanoparticles or chemical stabilization). <http://www.ctndm.es/proyectos/7-in.php>
- Training on mercury management and remediation of contaminated soils. Available from <http://www.cprac.org/es/archivo-de-noticias/genericas/training-on-mercury-management-and-remediation-of-contaminated-soils-a>
- Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance. Available from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/223705/pb13735cont-land-guidance.pdf

Norway

- “Working together towards a non-toxic environment and a safer future”, White Paper nr. 14 2006–2007. (See pg. 92-100, chapter 10.2-10.3). Available from https://www.regjeringen.no/contentassets/abe386e25e0e4d788e868d5f7f991362/en-gb/pdfs/stm200620070014000en_pdfs.pdf
- IPEN (2016). “Guidance on the Identification, Management and Remediation of Mercury Contaminated Sites”. Available from <http://ipen.org/documents/ipen-guidance-identification-management-and-remediation-mercury-contaminated-sites>

Switzerland

- Step-by-step guidance on the management of contaminated sites. Available from <http://www.bafu.admin.ch/altlasten/12163/12168/index.html?lang=en>
- Mercury thresholds in the contaminated sites ordinance. <https://www.admin.ch/opc/de/classified-compilation/19983151/index.html>

International POPs Elimination Network

IPEN (2016). “Guidance on the Identification, Management and Remediation of Mercury Contaminated Sites.” Available from <http://ipen.org/documents/ipen-guidance-identification-management-and-remediation-mercury-contaminated-sites>

Pure Earth

Pure Earth. “Recommendations for Technical Guidance on Identification, Assessment and Management of Mercury Contaminated Sites”. Available from:
<http://www.mercuryconvention.org/Portals/11/documents/2016%20call%20for%20submissions/Pure%20Earth%20Technical%20Guidance%20on%20Mercury-Contaminated%20Sites%20.pdf>

Annex III

Outline of the structure and content of guidance on the management of contaminated sites

Guidance on the management of contaminated sites

A. Introduction

The introduction will provide general background information on the risks associated with mercury exposure to both human health and the environment. It will give information on the global use of mercury, with particular relevance to those uses that have resulted or are likely to result in contaminated sites (in particular artisanal gold mining, use in chlor-alkali production, industrial waste management, or sites that may be contaminated due to run-off from such sites). The introduction will also provide an overview of the obligations under the Minamata Convention on Mercury in relation to the management of contaminated sites, and highlight some existing relevant national policies.

B. Site identification and characterization

The section will set out mechanisms that countries can use to identify sites contaminated by mercury or mercury compounds, as well as techniques to characterize the contamination following the identification of a suspected contaminated site. The guidance will describe the steps that may be required in developing a national list of contaminated sites. Steps may include determination of the national level of mercury or mercury compound contamination that would result in a site being described as contaminated. The term “site” may also need to be defined, taking into account that areas affected by run-off from a primary site may be more affected. The guidance would then cover the mechanism at the national level to determine potentially contaminated sites. This may include a combination of a desk exercise gathering information on current or previous industrial or mining activities in which mercury or mercury compounds have been used or released, or the location of waste dumping area, as well as information gathered through observation of sites and local reporting.

Potentially contaminated sites identified through this mechanism can be further characterized through an assessment protocol. The guidance would also cover what such a protocol may encompass, noting that the protocol would need to be agreed at the national level. The assessment protocol may include site inspection to further determine the characteristics of the site (including topography, the possibility of run-off or contamination of local water sources, current usage of the site and evidence of previous uses). Detailed sampling of the air, soil and water at the site would be needed to further characterize the risks, and the guidance would include information on sampling information to best characterize the site, as well as a range of analytical methodologies that could be used to determine the level of mercury or mercury compounds present. Sampling of biota, particularly fish, in areas affected by mercury contamination can give useful information, particularly on the risks to local populations through exposures through their diet, and sampling of the local populations themselves may also be required. Description of the sampling techniques and analytical methodologies would be included in the guidance. The guidance may also include information on prioritization of activities, where an initial screening activity is used to determine the sites that are considered to be the highest risk (taking into consideration factors such as location close to population centres, possibility of contaminating ground water or river systems and the actual levels of mercury at the site).

C. Engaging the public

The need to engage the public is recognized as essential. The guidance will include information on setting up a public consultation process, including mechanisms for collecting and distributing information, involvement of the public and stakeholders in establishing commitments and a plan in relation to the assessment process and any possible remediation process, and methods of collecting feedback to assess public engagement and levels of satisfaction. The guidance will also include information on activities to raise public awareness and build capacity, particularly in relation to any requirements in relation to reducing exposure.

D. Human health and environmental risk assessments

The impact of the site relies on risk assessments for both human health and the environment. While the hazards of mercury are well-characterized and universal, the exposure resulting from the presence of mercury is site specific. The guidance will include some information on the hazards of mercury and mercury compounds, but will focus more on considerations of how the site characteristics may be

associated with exposure for humans and the environment, and how such exposure can be assessed. It will then provide information on how to determine the risks associated with the site, including determination of where the risks are primarily to the environment, to human health or to both.

E. Options for managing the risks posed by contaminated sites

Following assessment of a contaminated site, national decisions would need to be taken on the most appropriate means of managing the site. The guidance will provide information on a range of options for managing the risks posed by contaminated sites. It will consider the need to protect humans and the environment throughout the risk management process, and will take into account the need for any actions to be conducted in an environmentally sound manner.

F. Evaluation of benefits and costs

It is recognized that identification, characterization, assessment and remediation of contaminated sites will incur costs; however, it is also recognized that the impact of mercury and mercury compounds on local populations and the environment also incurs costs. The guidance will provide information on assessing the costs and benefits of activities to address contaminated sites to the extent possible, recognizing that there will be variation between countries with respect to the costs of interventions.

G. Validation of outcomes

There is a need to validate the outcomes of any delivered activity in relation to contaminated sites, in particular to determine the effectiveness of any interventions, as well as to consider the need for any further activities. The guidance will include information on activities needed to validate the outcomes.

H. Cooperation in developing strategies and implementing activities for identifying, assessing, prioritizing, managing and, as appropriate, remediating contaminated sites

The section will set out possible strategies that may be taken up by parties that wish to cooperate on activities in relation to contaminated sites. The strategies may include information-sharing activities, identification of opportunities for joint assessment of sites, coordination of communication plans in relation to sites, and other cooperative activities as considered appropriate.

Annex IV

Draft road map for the preparation of the guidance document on the management of contaminated sites

The interim secretariat of the Minamata Convention has developed a draft road map on the preparation of a draft guidance document on the management of mercury-contaminated sites as requested by the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury at its seventh session.

The draft road map sets out activities that may be carried out after the first meeting of the Conference of the Parties, subject to agreement to such activities, their time frame and the availability of financial and other resources required for their implementation.

Given the scope of the work and the need for expert input in some areas, the following road map is proposed.

<i>Activity</i>	<i>Time frame</i>
The first meeting of the Conference of the Parties establishes a process to prepare a guidance document on the management of contaminated sites as called for in paragraph 3 of article 12 of the Minamata Convention for consideration and adoption by the Conference at a future meeting. The elements of this process are set out in the road map below.	September 2017
The Conference recognizes the complexity of the management of contaminated sites, as well as the technical requirements of developing draft guidance; however, it also recognizes that relevant guidance has been prepared in a range of other forums that can be drawn on in developing draft guidance. The Conference therefore recognizes the need for the contribution of experts in this area and calls for Governments and others to nominate interested experts to participate in the work.	September 2017
Nominations of experts are provided to the secretariat to be included in a working group of experts to collaborate electronically.	December 2017
The secretariat, drawing on previously submitted information and work undertaken in other forums, and using the outline of the structure and content of the guidance agreed by the Conference of the Parties as a basis, prepares an initial draft guidance on contaminated sites and circulates it electronically to the experts.	February 2018
The experts review the initial draft proposals and provide comments to the secretariat electronically. Teleconferences or webinars may be used to discuss the draft guidance as required.	April 2018
The secretariat prepares revised versions of the draft guidance and circulates it to the experts for consideration and further electronic discussion.	May 2018
The experts consider the revised proposal and prepare recommendations for the Conference of the Parties at its second meeting, including any recommendations for new or additional work to be undertaken.	June 2018
The secretariat makes the draft guidance and any recommendations available to the Conference of the Parties at its second meeting for its consideration and further recommendations.	Meeting tentatively planned for November 2018, subject to decision by the Conference of the Parties at its first meeting.