

Submission by the Government of Japan for “Contaminated sites”

In order to contribute to the further work required in preparation for the first meeting of the Conference of the Parties to the Minamata Convention, the Government of Japan submits herewith relevant information on Article 12 – Contaminated sites.

Legal Measures

Article 12, paragraph 1 of the Minamata Convention stipulates that each party shall endeavor to develop appropriate strategies for identifying and assessing sites contaminated by mercury or mercury compounds.

Japan’s legislation ensures the identification and assessment of contaminated sites with the following processes:

Soil Contamination Countermeasures Act requires the owner, manager, or occupier (hereinafter referred to as the “Owner, etc.”) of the land to have a Designated Investigation Institution to conduct an investigation and to report the results to the prefectural governor: i) when a factory, etc. in which Designated Hazardous Substances including mercury (Article 2, Paragraph 1 of the Soil Contamination Countermeasures Act), have been used is shut down (Article 3 of the Soil Contamination Countermeasures Act), ii) when the Owner, etc. intends to excavate and make other change to the Form or Nature of land with an area exceeding particular size (more than or equal to 3000m²) and the prefectural governor finds that the said land is in danger of being contaminated (Article 4 of the Soil Contamination Countermeasures Act), or iii) when the prefectural governor finds the existence of land which possibly poses harm to human health due to soil contamination by a Designated Hazardous Substance (Article 5 of the Soil Contamination Countermeasures Act).

If the level of the reported contamination exceeds the standard value (Appendix-1), the prefectural governor shall designate the reported site, based on the health risk, as an Area which Requires Action¹ (Article 6 of the Soil Contamination Countermeasures Act), or as an Area for which Changes to Form or Nature Require Notification² (Article 11 of the Soil Contamination Countermeasures Act). The Owner, etc. may request the prefectural governor to designate an area of the site when it voluntarily surveys the site and finds soil contamination (Article 14 of the Soil Contamination Countermeasures Act).

¹Area which Requires Action : Area that has the intake route of contamination so that measures such as the removal of contamination, prevention of the dispersion of contamination , etc. are needed lest it should cause health damage, Article 6 of the Soil Contamination Countermeasures Act.

²Area for which Changes to Form or Nature Require Notification : Area that does not have the intake route of contamination (or the area where the intake route of contamination is interrupted) so that measures such as the removal of contamination, prevention of the dispersion of contamination, etc. are needed lest it should not cause health damage, Article 11 of the Soil Contamination Countermeasures Act.

Ministry of the Environment conducts annual survey on the implementation of Soil Contamination Countermeasures Act, which includes designation status of the area such as Area which Requires Action, etc. A guideline has been formulated for the method of investigation and countermeasures and it is widely utilized on site.

Based on Article 15 of the Water Pollution Control Act, prefectures, etc. are undertaking groundwater monitoring of hazardous substances including mercury.

Article 12, paragraph 2 of the Convention stipulates that any action to reduce the risks posed by such sites shall be performed in an environmentally sound manner incorporating, where appropriate, an assessment of the risks to human health and the environment from the mercury or mercury compounds they contain.

Japan's legislation ensures the measures to reduce the risk of contaminated sites with the following instruments:

For Area which Requires Action where health risk may be caused, prefectural governor shall instruct the Owner, etc. of the land to take measures such as groundwater monitoring, soil containment and removal (hereinafter referred to as an "Action for Removal, etc."), which would be determined in consideration of the level of the soil contamination and the status of land use by the Owner, etc. of the area (Article 7 of the Soil Contamination Countermeasures Act). For Area for which Changes to Form or Nature Require Notification, when the Owner, etc. of the area intends to excavate and make other change to the Form or Nature of the area, prefectural governor shall be notified of Changes to Form or Nature of Land. The notification includes the method by which the changes will be made, such as prevention of dispersion and flowing out of the contaminated soil, as stipulated in Article 12 of the Soil Contamination Countermeasures Act.

When contaminated soil is removed from Area which Requires Action etc., its notification shall be submitted to the prefectural governor in advance (Article 16 of the Soil Contamination Countermeasures Act), and persons permitted processing contaminated soil must be entrusted to undertake the processing contaminated soil (Article 18 of the Soil Contamination Countermeasures Act).

A guideline is formulated for the method of Action for Removal, etc. and it is widely applied at a site.

Based on Article 14-3 of the Water Pollution Control Act, if human health damage has occurred or is likely to occur due to the perforation of hazardous substances including mercury into soil at a factory or a business establishment, the prefectural governor may order decontaminating measures to its Owner, etc.

With regard to soil contamination countermeasures in mines, Article 19, item (ix) of the Ordinance for Enforcement the Mine Safety Act requires conformity to the standards prescribed by Ordinance of the Ministry of

the Environment as stipulated in Article 6, paragraph (1), item (i) of the Soil Contamination Countermeasures Act. In the case where the contaminated site does not comply with the said standards, Article 46, paragraph (1) of the Ordinance for Enforcement the Mine Safety Act requires the holder of mining right to report to the Director-General of the Industrial Safety and Inspection Department, and he/she may order the holder of mining right to make necessary improvement (Article 36 of the Mine Safety Act). In addition, under Article 39 of the Mine Safety Act the holder of mining right may be ordered to install necessary equipment to prevent mining pollution for five years after extinction of the mining right.

Appendix-1, Designated Hazardous Substance and its standard

Designated Hazardous Substance and its standard are determined from risks such as (1) ingestion of groundwater (corresponding to Soil Leachate Standard), (2) direct ingestion (corresponding to Soil Concentration Standard).

Soil Leachate Standard is set for all Designated Hazardous Substance, but Soil Concentration Standard is set for only 9 substances (class 2: heavy metals) in Designated Hazardous Substances.

Designated hazardous substance		Designation standard	
		Soil Leachate Standard	Soil Concentration Standard
Class 1 (VOCs)	Carbon tetrachloride	≤ 0.002mg / L	/
	1,2-Dichloroethane	≤ 0.004mg / L	
	1,1-Dichloroethylene	≤ 0.1mg / L	
	cis-1,2-Dichloroethylene	≤ 0.04mg / L	
	1,3-Dichloropropene	≤ 0.002mg / L	
	Dichloromethane	≤ 0.02mg / L	
	Tetrachloroethylene	≤ 0.01mg / L	
	1,1,1-Trichloroethane	≤ 1mg / L	
	1,1,2-Trichloroethane	≤ 0.006mg / L	
	Trichloroethylene	≤ 0.03mg / L	
	Benzene	≤ 0.01mg / L	
Class 2 (Heavy Metals, etc.)	Cadmium and its compounds	≤ 0.01mg / L	≤ 150mg / kg
	Hexavalent Chromium compounds	≤ 0.05mg / L	≤ 250mg / kg
	Cyanides compounds	< detection limit	As isolated cyanides ≤ 50mg / kg
	Mercury and its compounds	≤ 0.0005mg / L Alkyl Mercury less than detection limit	≤ 15mg / kg
	Selenium and its compounds	≤ 0.01mg / L	≤ 150mg / kg
	Lead and its compounds	≤ 0.01mg / L	≤ 150mg / kg
	Arsenic and its compounds	≤ 0.01mg / L	≤ 150mg / kg
	Fluorine and its compounds	≤ 0.08mg / L	≤ 4000mg / kg
	Boron and its compounds	≤ 1mg / L	≤ 4000mg / kg
Class 3 (Agrochemicals and PCBs)	Simazine	≤ 0.003mg / L	/
	Thiuram	≤ 0.006mg / L	
	Thiobencarb	≤ 0.02mg / L	
	PCB	< detection limit	
	Organic phosphorus compounds	< detection limit	