Review Results on the National Implementation Plan under the Stockholm Convention on Persistent Organic Pollutants (POPs)

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Section 3 Regulatory measures designed to prevent the manufacture, use, import and export of persistent organic pollutants.	1. Measures under the Chemical Substances Control Law	-	26-27	Among the POPs designated under the Stockholm Convention at the time of the preparation of the current National Implementation Plan, ten chemicals are designated as Class I Specified Chemical Substance under the Chemical Substances Control Law, except PCDDs and PCDFs, which are not manufactured intentionally. The manufacture and import of these ten chemicals is practically prohibited, and they have neither been manufactured nor imported against the law since the completion of the plan. Meanwhile, as HCB was found in 2006 to be unintentionally produced at the time of the manufacture of other chemical substances, the Ministry of Health, Labour and Welfare, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment studied the proper response to the issue, and amended the notice of the law in 2007. This amendment stipulates that if chemical substances designated as Class I Specified Chemical Substance are contained in other chemical substances as residues only in small amounts, they are not to be designated as Class I Specified Chemical Substance where it can be confirmed that they do not pose any threats to human health through environmental pollution, and their content rates have been lowered to technologically and economically possible levels. Subsequently, in cases where chemical substances such as HCB are found to exist as residues in other chemical substances in small amounts, technologically and economically possible reduction levels were established individually, and business entities are being requested to achieve further reductions, based on the notice. Also, as it was found in February, 2012 that PCB was included as residues in certain types of organic pigments that have a wide rage of domestic uses, urgent and provisional measures were put into place. They request business entities to prohibit the manufacture, import and use of organic pigments containing PCB above 50 ppm and their recall. Efforts are also underway to consider the necessity etc. of establishing technologically and economically possible reduction levels, and additional measures. As the chemical substances were newly designated under the Stockholm Convention since the preparation of the current National Implementation Plan in June, 2005, pertinent regulations were amended when the Chemical Substances Control Law was amended in 2009 so that chemical substances could be used under stringent control if there were no alternatives, and their uses would not pose any threats to human health etc. to ensure consistency with the Stockholm Convention.
	2. Measures under the Agricultural Chemicals Regulation Law	-	27-28	Among the POPs newly designated under the Stockholm Convention in addition to the nine chemicals described in the current plan (DDT, aldrin, dieldrin, endrin, chlordane, heptachlor, mirex, toxaphene, HCB), the five chemicals related to agricultural uses (lindane, chlordecone, pentachlorobenzene, α-HCH, β-HCH) and endosulfan are listed as chemicals regulated under the Agricultural Chemicals Regulation Law, and it is prohibited to distribute or use agricultural chemicals containing those chemicals.
	3 Measures under the Pharmaceutical Affairs Law	-	28	Currently, no drugs etc. containing the chemicals whose manufacture etc. is prohibited under the Stockholm Convention, including the newly designated chemicals, are approved inside Japan.
	4. Measures under the Foreign	-	28	Regulated as in the past.

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	Exchange and Foreign Trade Law			
Section 4 Action Plan for Reduction of Emissions of Unintentionally Produced Chemicals	1. Dioxins	(1) Current and future release estimates in Japan	29-30	The amounts of emissions of dioxins have been estimated continuously since 1997 with the latest estimation made in 2010 (refer to the table shown in Chapter 3, Section 4, 1. (1)). Measures will also be implemented appropriately after 2011 to lower the emissions below the estimated emissions of 2010.
		(2) Effectiveness evaluation of the laws and policies concerning release control	30-36	Regulatory measures became effective in 1997 for some facilities under the Waste Management Law and the Air Pollution Control Law. The target facilities subject to regulation increased since 2000 due to the Act on Special Measures concerning Countermeasures against Dioxins to regulate emissions of dioxins. The amount of emission of dioxins in 2010 was significantly reduced (by approximately 98%) from the level in 1997, and it is judged that policies were effective in reducing emissions.
		(3) Strategy to promote the reduction of total releases	36-42	It was confirmed that the reduction target of 2010, the target year stipulated by the second "Government Plan to Reduce Dioxins Levels Resulting from Business Activities in Japan" (Reduction Plan), was achieved.
		(4) Measures to promote educational and training activities, and to enhance public awareness	42-43	Under the Fundamental Law for Establishing a Sound Material-Cycle Society, a wide range of integrated environmental education/learning, designed for the reduction of waste that could be a source of dioxins and recycling etc., has been comprehensively implemented. Also, the supply of information, personnel training, and systematization of educational programs have been promoted under the Law for Enhancing Motivation on Environmental Conservation and Promoting of Environmental Education. Systematic training has been provided to technical experts working in official testing organizations of local public authorities etc. since 1999. An inter-ministerial pamphlet has been regularly prepared and distributed for the general public that explains dioxins in an easily understandable manner. An annual report has been issued, which shows the current situation and issues toward the goal of building a recycling and reuse-oriented society.
		(5) Contribution to international community	43	Some positive results in terms of awareness raising etc. were achieved by making efforts to transfer experience and knowledge etc. on measures against dioxins Japan has accumulated, through training sessions and technical cooperation provided to developing countries and countries with economies in transition, upon requests from these countries.
		(6) Evaluation and revision of action plan	43	The dioxins Reduction Plan was established and the second review was conducted after five years since the establishment. The new Reduction Plan was published in August 3, 2012.
		(7) Schedule for implementing the action plan	43	In view of environmental status in 2010, the target year of the previous Reduction Plan, in addition to the results of the review of the National Implementation Plan, current measures will be promoted appropriately in the future.
	2.Hexachlorobenzene (HCB)	(1) HCB release in Japan	43-44	Estimation of HCB emissions has been continued since 2002 with the latest estimates (2009) described in the National Implementation Plan (refer to the table shown in Chapter 3, Section 4, 2. (1)).
		(2) Measures to reduce HCB release	44	1. It was confirmed based on a survey conducted for domestic operating facilities that HCB and PCB produced unintentionally were generated from heat combustion processes similar to those for dioxins[1].

[1] FY2004 Research report on release control measures for unintentionally produced POPs "3.3 Considerations of HCB etc. releases" etc.

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				Also, it was estimated that HCB releases from thermal processes in the metallurgical industry and waste incineration facilities were relatively larger, and PCB releases from cement kilns and thermal processes in the metallurgical industry were relatively larger. 2. It was estimated that HCB release reduced by approximately 40% from 2002 to 2009[2]. 3. Continuous surveys regarding emission sources have been conducted to investigate emission status in a well planned manner every year[3]. Also, a new survey was conducted on HCB and PCB emissions generated from firing installations for wood and other biomass fuels, among motor vehicles and firing installations for biomass fuels. As a result, these HCB and PCB emissions account for less than 1% of the total emission, and were estimated to be relatively smaller[4]. 4. Emissions have been estimated every year since 2002. As additional release reduction measures were considered to be necessary for emission sources that generated large amounts of emission, release reduction effects achieved with dioxins release reduction measures were verified based on a survey conducted at operating facilities[5]. Additional HCB and PCB reduction measures were considered with the help of industry groups[6]. A list of examples of effective HCB and PCB reduction efforts are being prepared. 5. Furthermore, an expert meeting was established to verify the survey results, and advice concerning voluntary release reduction measures was given for business entities. Also, efforts were made to promote international contributions by reporting regularly our country's knowledge at international meetings concerning emission factors and emission inventories for HCB, PCB and PeCB on which there is a lack of information internationally.
	3. Polychlorinated biphenyl (PCB)	(1) PCB release in Japan	44-45	Estimation of PCB emissions has been continued since 2002 with the latest data (2009) described in the National Implementation Plan (refer to the table shown in Chapter 3, Section 4, 3. (1)).
		(2) Measures to reduce PCB release	45	1 Same as the review results 1, 3, 4, 5 vis-a-vis Section 4, 2. (2). 2. It was estimated that PCB emissions from the Part III source categories reduced by approximately 30% while increased from cement kilns, secondary zinc production and waste incinerators for the Part II source categories from 2002 to 2009. 3. Emissions into water are regulated as in the past under the Water Pollution Control Law.
Section 5 Measures to eliminate polychlorinated biphenyl	1.Ban on use	-	46	The use of new PCB-containing devices is banned due to an administrative guidance issued in 1972 to voluntarily refrain from using those devices, practical prohibition of the manufacture and use of PCB, and of the import of PCB and PCB-containing devices based on the Chemical Substances Control Law. The Electricity Utilities Industry Law (Law No. 170 of 1964) was also enforced in 1976 to ban the installation of electric machinery and devices using PCB-containing insulation oils into the cable run. Most of the PCB-containing devices etc. that are currently in use are transformers and power condensers etc. Efforts will be made for appropriate maintenance and control of such devices by understanding status of their use, and performing appropriate inspection and maintenance etc.

[2] FY2010 Research report on release control measures for unintentionally produced POPs "Table 2-9, 10 List of release factors/amounts of activities/amounts of releases"

[3] FY2010 Research report on release control measures for unintentionally produced POPs "Table 2-3 the number of measured data acquired through HCB etc. release surveys conducted in FY2001 - FY2010"

[4] FY2006/FY2007 Research report on release control measures for unintentionally produced POPs

[5] FY2009/FY2010 Research report on release control measures for unintentionally produced POPs

[6] FY2004 - FY2008 Research report on release control measures for unintentionally produced POPs

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	2. Elimination	-	46-48	For improvement of wide-area waste disposal facilities, they initially focused on the disposal of high-voltage transformers etc. In light of the progress made regarding disposal systems for contaminants etc., the wide-area waste disposal facilities are being developed that are intended for the disposal of high-voltage transformers and contaminants etc.
		(1) High-voltage transformer and other devices	48	The Basic Plan for PCB Waste Treatment (revised in 2009) that will expire in 2016 is being carried out as planned (refer to the table shown in Chapter 3, Section 5, 2. (1)).
		(2) Waste polychlorinated biphenyl (waste PCBs) and other wastes	48-49	The Basic Plan for PCB Waste Treatment (revised in 2009) that will expire in 2016 is being carried out as planned (refer to the table shown in Chapter 3, Section 5, 2. (2)).
		(3) Pole-mounted transformer	49	The Basic Plan for PCB Waste Treatment (revised in 2009) that will expire in 2016 is being carried out as planned (refer to the table shown in Chapter 3, Section 5, 2. (3)).
		-		For waste electrical machinery contaminated by small amounts of PCB, the relevant notice was revised in light of the reports made by the expert panel regarding the disposal of waste heavy electrical machinery containing small amounts of PCB (March, 2009), the Central Environment Council, and the development of waste disposal systems utilizing detoxification recognition system was carried out since FY2009.
Section 6 Strategy for identification of stockpiles and wastes, and measures for sound management and disposal	1. Stored agricultural chemicals	(1) Identification and management	49-51	The survey of control status of stored agricultural chemicals was conducted in 2011. Subsequently, out of a total of approximately 4,400 tons that had been stored in the ground nationwide, approximately 4,000 tons had been excavated and handled properly by February, 2011 in accordance with the "Technical Documents on Treatment of Agricultural Chemicals containing POPs" developed by the Waste Management and Recycling Department, Ministry of the Environment. Also, the environmental survey was conducted for the remaining approximately 400 tons of the stored agricultural chemicals in accordance with the "Interim Manual for Survey and Excavation of Pesticides Stored in the Ground" (Water Environment Department, Ministry of the Environment) to control them in ways that would not pollute the surrounding environment.
		(2) Disposal	51-52	
	2. Obsolete chlordanes	(1) Identification	52	According to surveys conducted in FY 2011, it was confirmed that the amount of waste chlordane products reduced. The amount of stock of waste chlordane products is approximately 25 tons as of January, 2012 (equivalent to approximately 2 tons of chlordanes). Subsequently, verification tests were conducted by business entities with respect to disposal of obsolete chlordanes, and proper disposal had been completed by confirmed disposal methods.
		(2) Disposal	52	

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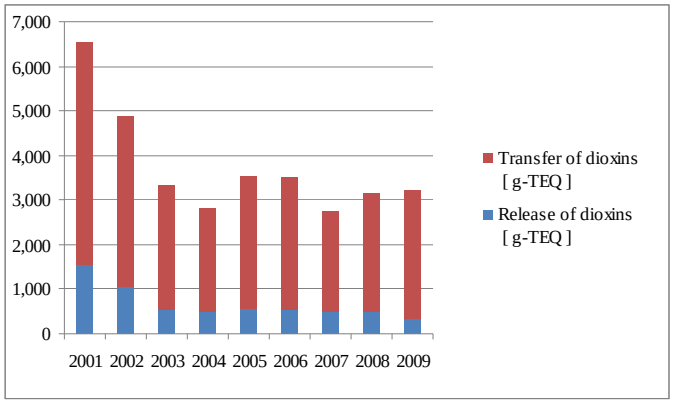
	3. Dioxin-contaminated wastes	(1) Identification	52-53	The amounts of dioxins transferred or buried have been confirmed since FY2001 under the Chemical Substances Reporting and Management Promotion Law. "Summary of PRTR data – the total amount of pollutants release and transfer" that covers FY2001 to FY2009 is as follows.  Regulated as in the past in accordance with the Waste Management and Public Cleansing Law.
		(2) Disposal	53-54	
	4. Dioxin-containing agricultural chemicals	(1) Collection and sound management	54	While the "Technical Documents on Treatment of Agricultural Chemicals containing POPs" (Ministry of the Environment) was prepared in October, 2004, it was revised in August, 2009 to address the changes in the situation, represented by the adoption of the "General technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants (POPs)" at the Conference of the Parties to the Basel Convention which aims to regulate the transboundary movement and disposal of hazardous wastes, and preparation of the "Interim Manual for Survey and Excavation of Pesticides Stored in the Ground" (Water Environment Department, Ministry of the Environment), the accumulation of new knowledge, and issues related to the effectiveness of the guidelines and manual etc.
		(2) Disposal	54	
Section 7 Strategy for Identification of contaminated sites	1. Dioxins	(1) Anti-pollution measures for soil	55-56	By March 2011, five areas had been designated as controlled areas. Out of these areas, three areas were already delisted, as necessary measures had been completed such as detoxification of contaminated soil. Necessary measures are being implemented for the remaining two areas.
		(2) Antipollution measures for bottom sediment	56-58	Since "The Data Book on Dioxin Decomposition and Detoxification Technology for Bottom Sediment in Seaports" (Ministry of Land, Infrastructure, Transport and Tourism) was prepared in March, 2003, it was revised in December, 2003 and April, 2008.
	2. Polychlorinated biphenyl (PCB)	(1) Antipollution measures for soil	58	PCB is designated as a specified hazardous chemical under the Soil Contamination Countermeasures Law. Surveys are to be conducted, for example, when facilities have been closed down that manufacture, use or dispose of PCB, and the character of land changes in ways that could lead to land contamination.
		(2) Antipollution measures for bottom sediment	58	According to the nationwide survey conducted in FY1972 on PCB-contaminated bottom sediment, 79 water areas were found to require antipollution measures. PCB removal from the contaminated bottom sediment was completed in 2004. Subsequently, bottom sediment that exceeds the standard maximum value has not been identified.
	3. Others	-	58	Properly managed as in the past, in accordance with the Waste Management and Public Cleansing Law and the Law concerning Special Measures against Dioxins etc.

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Section 8 Countermeasures against POPs not listed in the Annex of the Stockholm Convention	-	-	58-59	As a result of the prior review of new chemical substances conducted under the Chemical Substances Evaluation Law, there were no chemicals that should be added to the list of Class I Specified Chemical Substances, since the preparation of the current National Implementation Plan. Also, as a result of the hazard assessment of existing chemical substances, Phenol, 2-(2H-benzotriazol-2-yl)-4, 6-bis(1,1-dimethylethyl) was added to the list of Class I Specified Chemical Substances in 2007. The chemical is regulated by prior authorization for its manufacture and import (practically prohibited) and the restriction and notification for its use (practically prohibited). For agricultural chemicals, it is prohibited to distribute or use agricultural chemicals containing the 27 chemicals as active ingredients, including the 14 chemicals currently designated under the Stockholm Convention and newly designated endosulfan. For drugs, they are regulated as in the past in accordance with the Pharmaceutical Affairs Law.
Section 9 Measures for monitoring POPs in the environment	-	-	59-60	While the Ministry of the Environment has continued to carry out environmental monitoring surveys of POPs since FY2002, the number of chemical substances subject to the monitoring increased in FY2009 as the chemical substances were newly designated under the Stockholm Convention. New POPs are planned to be added as chemical substances subject to the monitoring, when relevant, and the monitoring carried out. Also, monitoring surveys for a human biological sample (blood) started in FY2010.
		(1) Ten groups of chemicals other than dioxins	60	The newly designated POPs were added as chemical substances subject to the monitoring in FY2009. For survey media and sites, the survey results of FY2010, the latest results, are shown in the revised National Implementation Plan, as the number of survey sites and media (wildlife) etc. differ from year to year. Also, the survey results for a human biological sample (blood) are described in the plan.
		(2) Dioxins	60-61	For survey media and sites, the survey results of FY2010, the latest results, are shown in the revised National Implementation Plan, as the number of sites that had been surveyed in the past differs from year to year. Also, groundwater was added as a survey medium in the plan.