

SCRCAP NEWSLETTER



Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology in Asia and the Pacific

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SCRCAP Activities

2nd National Training Workshop for Environmental Officers on Supervisions of Incineration Disposal Facilities of Hazardous Waste Was Held in Shanghai

The 2nd national training workshop in 2015 for environmental officers on supervision of incineration disposal facilities of hazardous waste was held on November 23-27 in Shanghai Chemical Industry Park, China. This training workshop was hosted by Department of Pollution Prevention and Control, Ministry of Environmental Protection of China (MEP), and organized by Basel Convention Regional Centre for Asia and the Pacific/Stockholm Convention Regional Centre for Capacity-building and Technology Transfer in Asia and the Pacific (BCRC China/SCRCAP) in cooperation with SCIP SITA Waste Services Company Ltd (Shanghai, China), aimed to improve the knowledge and practical ability of local environmental officers on supervision of incineration disposal facilities of hazardous waste. Total 17 participants of local solid waste management departments from 14 provinces/cities and 3 environmental supervision centers

attended this workshop.

In this training workshop, Professor Yongfeng Nie of Tsinghua University opened the workshop and taught the national hazardous waste disposal industry development status and trends. Shaolin Wu of Shanghai Solid Waste Management Center introduced hazardous waste management and key work in Shanghai, China, and communicated with participants from local provinces.

Through the training workshop, the incineration disposal facilities of hazardous waste was visited, the key links and factors on hazardous waste management and supervision of the whole operation process of the hazardous waste incineration disposal facilities, such as transportation, storage, laboratory analysis, emissions, and etc. have been introduced, and the information on supervision idea of hazardous waste has been exchanged.



Training Workshop on PBDEs Environmentally Sound Management and Elimination Was Jointly Organized by BCRC China/SCRCAP and Environmental Ministry of Sri Lanka

Jointly organized by BCRC China/SCRCAP, the Ministry of Mahaweli Development and Environment of Sri Lanka and the South Asia Cooperative Environment Program (SACEP), the Training workshop on PBDEs Environmentally Sound Management and Elimination was held on November 27th, 2015 in the capital of Sri Lanka, Colombo. 33 representatives from ministry of environment, customs, industry and agriculture sector as well as Dr. Roland Weber who is

an expert on POPs from Germany, attended the workshop.

The workshop is one of the activities of the project -Supporting Developing Countries to eliminate the industrial POPs of Stockholm Convention implemented by BCRC China/SCRCAP. The training aimed at promoting information exchanging, experience sharing and improving the POPs (especially PBDEs) environmentally sound management in Sri Lanka.

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Chemical News

ECHA endocrine disruptor group considers 9 chemicals including TBBPA

05/11/2015

On 21-22 October, ECHA endocrine disruptor expert group organized meetings to give advice on the assessment and testing of 9 kinds of chemicals according to the request from member state competent authorities. The meeting include open sessions and closed sessions. 1,2,4-triazole, brought by Belgium; p-cresol, proposed by the UK; and 2,6-di-tert-butyl-p-cresol, submitted by France are discussed in open sessions.

The widely used TBBPA and other 5 chemicals are considered in closed sessions because of confidentiality concern. 6 out of the 9 chemicals has been listed in the REACH Community Rolling Action Plan and subject to the REACH evaluation.

[More...](#)

China begin to enhance management of existing chemicals

11/11/2015

Currently, China's existing chemical substances management is based on the regulatory catalogues and not required to go through strict risk assessment based on abundant scientific data prior to market entrance approval. While, at the 9th Trilateral Policy Dialogue on Chemicals Management among China, Japan and Korea on Nov 11, the official from China's Ministry of Environmental Protection (MEP) introduced that China now is taking actions to perfect the system and progress in environmental risk management of existing chemical. MEP has begun to work with other authorities to carry out environmental and health risk assessment of existing chemicals. Based on the assessment results, priority catalogue for industrial chemicals will be issued with instructions to phase out, restrict, or substitute.

Besides that, MEP is also working on nominating the environmental endocrine disruptors (EDC) subject to prioritized control with a plan set for issuing the chemical list by the end of 2017.

[More...](#)

Japan add Class I Specified Chemical Substances under CSCL

12/11/2015

According to the decision made at the 7th meeting of the Conference of the Parties to the Stockholm Convention on POPs, Japan decided to designate polychlorinated naphthalene containing two chlorine atoms (i.e. dichloronaphthalene, CAS 28699-88-9), and pentachlorophenol (CAS#87-86-5) and its salts and esters as Class I Specified Chemical Substances under the Chemical Substance Control Law (CSCL). The decision will take effect via amendment to the Cabinet Order under CSCL, which will undergo public consultation after issuance.

As a result, business activities related to these chemicals should comply with the requirements set in Chapter 2 of CSCL, including acquiring production and importation permissions from METI. As it regulated, the following products are subject to import prohibition: Lubricating and cutting oils; Wood antiseptics, insecticides, and fungicides; Paints (limited to those for antiseptic, insecticidal, and fungicidal use); Wood treated with antiseptics, insecticides, and fungicides; Plywood treated with antiseptics, insecticides, and fungicides; Glues.

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ECHA issued 7th draft recommendation for inclusion in the Authorisation List

15/11/2015

On November 15, ECHA proposed 7th draft recommendation for inclusion chemicals in the Authorisation List (Annex XIV of REACH) and invites public comments on the priority of the substances, their uses, possible exemptions from the authorisation requirement and on the proposed transitional arrangements. The comments can be given by 18 February 2016.

Totally 11 chemicals are proposed in the 7th draft recommendation. Among them, four lead compounds, namely orange lead (lead tetroxide), lead monoxide (lead oxide), pentalead tetraoxide sulphate and tetralead trioxide sulphate were included in the 6th draft recommendation and underwent a three months public consultation in 2014. They were evaluated as being of high priority for inclusion in Annex XIV but were not included in the final 6th recommen-

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ation because of workload considerations. Due to their unchanged high priority they are considered for inclusion in the 7th recommendation.

ECHA regularly recommends substances from the Candidate List for inclusion in the Authorisation List to the Commission. The draft recommendation is based on an assessment of the data in registration dossiers and other available information, and an initial consultation with the Member State Committee. Registrations will be checked for any updates at the end of the public consultation.

[More...](#)

South Korea published new classification and labeling information of 208 chemicals

26/11/2015

On November 12, 2015, South Korea's National Institute of Environmental Research (NIER) announced a list of 208 non-toxic substances subject to new

classification and labeling information after hazard evaluation under K-REACH by NIER Announcement No.2015-394. It is now open for public consultation until 1st of Dec 2015.

These 208 substances were classified as non-toxic substances after notification under TCCA (replaced by K-REACH since 1 Jan 2015) and given corresponding Korean existing chemical number as "KE No. 201x-3-xxxx" after having their status changed from new substances to existing substances. South Korea's Non-toxic Chemical Substance List, is updated in a fixed format and only provides the KE No, chemical name and CAS No.

The announcement has been issued for the purpose of identifying the new hazard information of existing chemical substances and disclosing it to the public. If approved, the new classification and labeling information can be referred to during compilation of SDS and signal words.

[More...](#)

Distribution of polybrominated diphenyl ethers and HBCD in sediments of the Hunhe River in Northeast China

Research Advance

Researchers from Guangzhou Institute of Geochemistry and University of the Chinese Academy of Sciences investigated the distribution of polybrominated diphenyl ethers and HBCD in sediments of the Hunhe River in Northeast China. The abstract is as below.

Forty surface sediment samples from the Hunhe River in Northeast China were evaluated for contamination by polybrominated diphenyl ethers (PBDEs) and hexabromocyclododecane (HBCD). The results showed that decabromodiphenyl ether (BDE-209) was the predominant congener, accounting for >98 % of PBDEs in all sediment. The concentrations of BDE-209 and HBCD ranged from 3.96 to 327 ng/g dry weight and 0.05 to 25.8 ng/g dry weight, respectively, suggesting that BDE-209 was more widely applied in the study area. The mean concentrations of BDE-209 and HBCD in the downstream portion of the Hunhe River (BDE-209 148 ng/g dry weight and

HBCD 3.74 ng/g dry weight) were found to be relatively higher than those in the upstream portion of the Hunhe River and the Dahuofang Reservoir, revealing an association with municipal sewage and industrial effluent received from the cities of Fushun and Shenyang. γ -HBCD was the most abundant diastereoisomer of all three analyzed HBCD isomers; however, marked elevations of α -HBCD were also found in most sediment samples. Surprisingly, the relative abundance (mean 38 %) of α -HBCD in sediment from the upstream portion of the Hunhe River was significantly higher ($p < 0.006$, t test) than those in Dahuofang Reservoir (mean 24 %). Moreover, the severe heavy metal contamination associated with the frequent mining activities in this region was tentatively suggested as being responsible for the increased levels of α -HBCD.

Source: <http://link.springer.com/article/10.1007/s11356-015-4779-x>

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Different pattern of contamination by legacy POPs in two populations from the same geographical area but with completely different lifestyles: Canary Islands (Spain) vs. Morocco

Researchers from University of Las Palmas de Gran Canaria, Instituto Canario de Investigación del Cáncer, Spanish Biomedical Research Centre in Physiopathology of Obesity and Nutrition investigated the Different pattern of contamination by legacy POPs in two populations from the same geographical area but with completely different lifestyles: Canary Islands (Spain) vs. Morocco. The abstract is as below.

The archipelago of the Canary Islands is one of the so-called ultra-peripheral territories of the European Union due to its geographical location away from the continent. Although the level of socioeconomic development and lifestyle of this region is comparable to that of any other of the European Union, it is just 100 km off the coast of Morocco, in the African continent. The population of the Canaries has been extensively studied with respect to their levels of POPs, and it has been described that their levels are relatively high compared to other European regions. It has been speculated with that the proximity to Africa may be associated with this level of contamination, but so far this theory has not been verified. This paper describes for the first time the levels of organochlorine

pesticides (OCPs) and polychlorinated biphenyls (PCBs) in a sample of the population of Morocco ($n = 131$), which were compared with those of a similar sample of the population of permanent residents in the Canary Islands ($n = 100$) in order to check this hypothesis. Our results showed that Moroccans have higher median values of OCPs than the residents in the Canaries ($\sum \text{OCP} = 150.2 \text{ ng/g lw}$ vs. 83.4 ng/g lw , $p = 0.0001$). Regarding the PCBs, although recent studies have reported that new environmental sources of PCBs exist in several African countries (including Morocco), the plasma levels of most congeners were significantly higher in Canarians than in Moroccans, especially for the dioxin-like PCBs (median = 7.3 ng/g lw vs. 0.0 ng/g lw , $p = 0.0001$). The detailed analysis of our results suggests that the levels of these pollutants in the Canarian people are more influenced by their lifestyle and the previous use of these chemicals in the archipelago than by its geographical vicinity with Morocco.

Source: <http://www.sciencedirect.com/science/article/pii/S0048969715307002>

POPs monitoring in Australia and New Zealand using plastic resin pellets, and International Pellet Watch as a tool for education and raising public awareness on plastic debris and POPs

Researchers from Tokyo University of Agriculture and Technology (Japan) and Tangaroa Blue Foundation (Australia) investigated the POPs contamination in along Australia and New Zealand North Island coastlines through International Pellet Watch. The abstract is as below.

Persistent organic pollutants (i.e. PCBs, DDTs, and HCHs) were analyzed along Australia and New Zealand North Island coastlines. PCB concentrations were high in urban areas ($107\text{--}294 \text{ ng/g-pellet}$), with Sydney Harbour the most polluted. Hepta-chlorinated PCB was abundant, with $\sim 30\%$ in urban areas suggesting legacy pollution. DDT concentrations showed similar pattern except in rural agricultural sites, Taupo Bay and Ahipara, New Zealand (23 and 47 ng/g-

pellet). p,p'-DDE predominance at these 2 sites suggested historical input; they also had high HCH concentrations (17 and 29 ng/g-pellet). The role of International Pellet Watch (IPW) in science communication was studied through feedbacks from IPW volunteers, case studies and examples. IPW data were categorized into understandable terms and tailored reports based on volunteers' backgrounds complemented with pollution maps. The effectiveness of IPW science communication has led to its use in awareness and education activities focusing on both POPs and plastic debris issues.

Source: <http://www.sciencedirect.com/science/article/pii/S0025326X15301570>

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Special Feature

Polybrominated diphenyl ethers in articles: a review of its applications and legislation

Jinhui Li, Yuan Chen, Wenjing Xiao/ Published in *Environmental Science and Pollution Research*

Polybrominated diphenyl ethers (PBDEs), especially commercial-Decabrominated diphenyl ethers (c-DecaBDE) have been widely produced and applied to numerous materials because of their highly effective flame-retardant capabilities. The production of commercial-PentaBDE (c-PentaBDE) and commercial-OctaBDE (c-OctaBDE) ended in 2004 because they are persistent, bioaccumulative, and toxic to both humans and the environment, but DecaBDE production and use continues. Furthermore, many congeners of PBDEs are still prevalent in consumer products and articles that they pose enormous threat to both the environment and human health. PBDEs have been detected in the casing of electrical and electronic equipment, textile materials, automotive interiors, polyurethane foam (PUF) in seat cushions, children's toys, kitchenware and other products. With increasing evidence about PBDEs pollution and the adoption of international conventions, many developed countries have drawn more public attention to PBDEs and developed sound strategies for their management. This review summarizes the utilization and management of PBDEs in a number of countries and reaches the conclusion that PBDEs are still prevalent in consumer articles, while specific regulations or policies for articles containing PBDEs are rare. Public awareness should be raised on the importance of sound management of articles containing PBDEs.

In this study, the production and application of penta-BDE, octa-BDE and deca-BDE were summarized. The major manufacturing sectors that have used PBDEs are: the organobromine industry; the electrical and electronics industry; the transportation industry; the furniture industry; the textiles and carpet industry; the construction industry; and the recycling industry. In addition, the concentration of PBDE in products and articles, such as Electrical and electronic equipment, textile, construction material, transportation, were investigated.

Also, the regulation and policies of PBDEs and PBDEs-containing materials in China and several developed countries were investigated and discussed. It was found that while developed countries have implemented environmentally sound strategies for the management of PBDEs, developing countries conduct less risk assessment on these substances, and neither the public nor policymakers are sufficiently educated on this issue or motivated to take action on it. Moreover, in developing countries, regulatory authority is often decentralized into multiple agencies and departments, resulting in inefficient implementation of whatever regulations do exist.

Meanwhile, considering that PBDEs containing articles are still widely used in most of countries, PBDE management needs to involve all players: the public, manufacturers, and downstream users. Everyone should be encouraged to participate in product stewardship, particularly in the control of emissions during the production, application, service, and end-of-life stages of products. Websites, newsletters, fact sheets and reports, publicity, and education can increase public awareness of the seriousness of PBDE pollution and the effects it has on the environment and human health.

Call for Articles

Officials from National Focal Points, environment departments of Parties, Secretariat of Stockholm Convention, POPs experts, enterprises, and other stakeholders are invited to share their view points and/or experiences on Stockholm Convention implementation, POPs elimination, substitution development, chemical management, and/or

implementation problems and challenges in their country/community/organization/etc.

Best articles will be selected, compiled and presented in a new column named "View Point" launched in SCRCAP Newsletter in 2013.

Please send your articles to: bccc@tsinghua.edu.cn.