POPs ACTION IN CHINA NO.23 SEP-OCT 2009

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OFFICE OF NATIONAL COORDINATION GROUP FOR STOCKHOLM CONVENTION IMPLEMENTATION

Developments of the Stockholm Convention

The second workshop for the Stockholm Convention Regional and Subregional Centers held

The second workshop for the Stockholm Convention Regional and Subregional Centers was held in Geneva, Switzerland from 28 September to 2 October 2009. Delegates from the Basel Convention Regional Center (BCRC) in China attended the workshop. The BCRC China is located at Tsinghua University and is one of eight approved regional centers.

The workshop had three major objectives. The first objective was to identify the role of regional centers. The second was to enhance the center's understanding and awareness of the updated National Implementation Plan (NIP), the Best Available Technologies and Best Environmental Practices (BAT/BEP) guideline as well as the Environmental Sound Management (ESM) of Persistent Organic Pollutants (POP) waste. The final objective was to promote the synergy of the three Conventions relating to the management of POPs which are: the Stockholm Convention, the Basel Convention and the Rotterdam Convention.

Group Photo of Workshop Participants

(Sources:Stockholm Convention Secretariat)

Content

The fifth meeting of the Persistent Organic Pollutants Review Committee (POPRC) held

The fifth meeting of the Persistent Organic Pollutants Review Committee (POPRC5) was held from 12 to 16 October 2009 in Geneva, Switzerland.

The Chinese delegation consisted of six members and was headed by the Ministry of Environmental Protection. The delegation also included representatives and experts from the following organizations: Ministry of Industry and Information Technology; Ministry of Agriculture (MOA); China Crop Protection Industry Association (CCPIA); Research Center for Eco-Environmental Sciences (RCES) of Chinese Academy of Sciences (CAS).

Professor Hu Jianxin from Peking University was also present at the meeting as China's recommended POPRC member. CCPIA joined the meeting representing China's non-governmental organizations.

The meeting reviewed the draft risk profiles on short chain chlorinated paraffins(SCCP)and endosulfan as well as a proposal on hexabromocyclododecane (HBCD). The draft risk profiles on SCCP failed to pass the review due to the lack of sufficient global monitoring data required to prove that it poses a major risk to environmental and/or human health. It was decided to postpone a decision on this topic until the next POPRC meeting to allow for signatories and observers to gather additional information. This is the third time that draft risk profiles on SCCP have failed to pass the environmental risk assessment; it was raised and passed at both the 2007 and 2008 POPRC meetings.

The meeting failed to reach a consensus on endosulfan due to its large-scale production and use, as well as the differing opinions expressed by experts on its effect on environmental and human health. However, the meeting passed the review on endosulfan through a majority vote.

For the proposal on hexabromocycl ododecane(HBCD) it was concluded that HBCD met the criteria for POPs properties out of prevention considerations in spite of limited scientific achievements.

During this meeting the decisions which were made by the POPRC during the fourth meeting of Conference of Parties (COP4) in May 2009 were announced. The work plan of new POPS, the evaluation guideline on alternatives, the POPRC pocket book, and the research progress of the interaction of multiple POPs toxicities were reviewed and passed.

(Source:Division V, FECO)

Project Progress

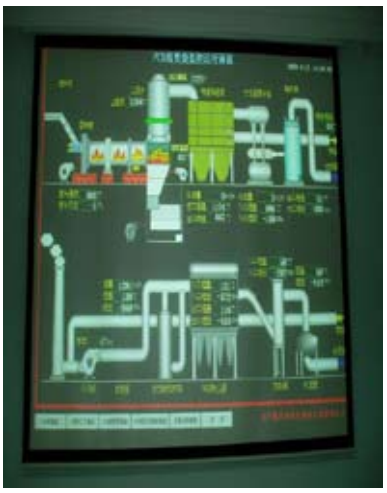
Trial Run and Performance Test of Shenyang PCBs Incineration Line Launched

The "China PCBs Management and Disposal Demonstration Project" (PCBs Demonstration Project) is a joint project between the MEP and the World Bank. This is China's first demonstration project for the implementation of the Stockholm Convention.

Zhejiang and Liaoning are the two demonstration provinces. According to the project design Zhejiang province will manage the monitoring and location of PCBs storage sites as well as the cleanup, temporary storage, transportation of contaminants, and the disposal of low PCBs contaminants. Liaoning province will carry out the high temperature incineration of PCBs wastes from Zhejiang province.

The PCBs demonstration project will help China establish the policies, regulations and standards for PCBs management and disposal, while also enhancing China's capacity for

Real-time monitor of the trial run



Pre-cooling equipment

PCBs treatment. Successful PCBs management and disposal experience in the two provinces will be disseminated across the country. Launched in 2006, the project is progressing well and recently conducted a successful trial run of the Shenyang PCBs High Temperature Incineration Facility.

The Shenyang Academy of Environmental Sciences (SAES) is responsible for the high temperature incineration of the Zhejiang retired PCBs-containing equipment and highly contaminated PCB wastes. For that, an investment of 1.6 million was made from the demonstration project to upgrade and improve the academy's original facilities. The current POPs dioxins emission is expected to reach international standards.

The SAES conducted the trial run and performance test of its PCBs incineration line from 4 to 23 September 2009, a project official from the Foreign Economic Cooperation Office of MEP (FECO/MEP) along with experts from home and abroad travelled to Shenyang to provide technical assistance and supervise the process. Safety training for the trial run staff was provided before the trial burn began.

After preliminary preparation of the facility, materials, supplies and workers, the trial operation of the incineration system, water cooling recycling system, gas purification system was conducted on September 7. On September 9 the trial operation of the subsystem ignition, warming and heat preservation and the system trial run was launched. All parameters during trial run were stable and the trial run continued successfully. A third party monitoring agency performed sampling and sample analysis from September 16.

At present, Shenyang is performing an initial analysis of trial run parameters and compiling the trial run test report. If all test results meet standards and emission requirements Shenyang will be ready to accept PCBs wastes from Zhejiang.

(Source:Division V, FECO)

FECO Team Set out for a Check-up Tour in Three Provinces under the Demonstration Project of Alternatives to Chlordane and Mirex for Termite Control in China

An evaluation team was organized by FECO to check the quality and progress of demonstration projects which are currently introducing alternatives to chlordane and mirex for termite control (also known as the Termite Demonstration Project) in the three provinces of Hunan, Anlui and Jiangsu.

The team visited six randomly selected demonstration cities over the course of 10 days. The demonstrations sites visited were: Zhuzhou, Xiangtan, Huainan, Anqing, Changzhou and Suzhou. Checks were conducted on installation and maintenance of bait systems, project progress, co-finance management system, and establishment of safeguard measures. These checks were performed by a number of methods including debriefing, project spot check, questions, file checking, and on-site presentations. The team scored

and evaluated both the installation and maintenance of the bait system within the demonstration cities and proposed comments and suggestions to the further implementation of the project. Additionally, experts exchanged views with front line workers, demonstrated correct methods for installation and maintenance, and answered questions raised by the technical staff.

The check and inspection process created a solid foundation for compiling experiences, promoting the efficient and standardized implementation of the termite demonstration project, and ensuring the sustainable development of Convention implementation achievement. Nan-Yao Su, the chief technical advisor (University of Florida), Zhang Xiliang, Deputy Secretary General of the professional committee of termite control, Song Xiaogang, individual expert for IPM quality control (Deputy Chief of the Termite Control Center) , Tan Sujin, National Technical Advisor (Chengdu Research Institute of Termite Control) participated in the entire process.

(Source:Division V, FECO)

Seminar on the Progress of Research and Development under the Termite Project Held in Hunan

A Seminar on the progress of a research and development project (within the Termite Demonstration Project) organized by FECO, was successfully held in Zhuzhou of Hunan Province on September 21 2009.

Experts and delegates from the following five research agencies attended the meeting: National Termite Control Center of China, Institute of Insect Sciences of Zhejiang University, Termite Control Center of Ningbo, Guangdong Entomological Institute, and Chengdu Housing and Real Estate Association. Representatives from these agencies presented their current research results and thorough discussions were made on the problems and difficulties which occurred during their research experiments.

Delegates from the University of Florida, administrative agencies such as Housing and Urban-Rural Development Bureau of Hunan, Professional Committee of China's Termite Control and Prevention, Termite Control Institute of Changsha, and Chengdu Termite Research Institute also joined the discussion.

The meeting further consolidated the first phase achievements of the phase-out of chlordane and mirex, and provided the basis for promoting the technical system and capacities for termite control in line with China's actual situations, and ensured the sustainable development of Convention Implementation.

(Source:Division V, FECO)

Seminar on the Research Project Titled Short-term Action Plan and Long-term Strategy for the Reduction and Control of Dioxin Pollutants Held

On October 14, 2009, a seminar on the research project titled "Short-Term Action Plan and Long-Term Strategy for the Reduction and Control of Dioxin Pollutants" (Dioxin Emission Reduction Research Project) was held by FECO in Beijing.

At the seminar, project progress and achievements were introduced, the objective, main work and countermeasures of various sectors were discussed in detail, the framework and sectoral plan were unified and optimized, the work plan and requirements were clarified and consensus was made on improving the sectoral plan and achieving its targets and tasks. A total of 15 delegates from industry associations, research institutes, and universities attended the meeting.

It is stated in the National Implementation Plan (NIP) that

China's six priority sectors for dioxin emissions reduction and control are: waste incineration, pulp and paper (chlorine bleaching), iron and steel production, secondary nonferrous metal production, funeral (cremator) processes, and chemical industries.

For different sectors to fulfill the obligations in the Stockholm Convention and to follow the requirements in the NIP, FECO organized the "Dioxin Emissions Reduction Research Project" based on the 2009 work plan for China's Convention implementation. The research results will provide key basic information and demands for incorporating dioxin Convention compliance requirements into the "Twelfth Five Year Plan" of environmental and other relevant industries and sectors, and to guide industry to make feasible plans and invest in future development.

(Source:Division V, FECO)

"Research Project on the Strategic Plan for China's Reduction and Phase-out of Perfluorooctane Sulfonates (PFOS), its Salts and PFOS Fluoride (PFOSF)" Launched

At the Stockholm Convention (COP 4) held in May, 2009, it was decided to include PFOS/PFOSF under Annex B (restriction). Following this announcement, in collaboration with the World Bank and funded by a 200,000 Canadian dollar grant from the Canadian Trust Fund (CTF), FECO has developed

the "Research Project on China's Reduction and Phase-out of PFOS, its Salts and PFOSF", also referred to as the PFOS Project. The aim of this project is to identify the state of China's production, use, import, export and emissions of PFOS/PFOSF, and to propose a reduction and phase-out strategy. The project will conduct inventory research on the production, sales, use and information of alternatives of PFOS/PFOSF and propose the strategic framework for China's reduction and phase-out. The project will be launched in October 2009, and be concluded by the end of December 2009.

To ensure the project's smooth implementation, and to discuss the implementation details with stakeholders, FECO organized the inception workshop on 21 October 2009 in Beijing. A total of 40 delegates from MIIT, MOA, the Ministry of Public Security, industry associations, research institutes and enterprises attended the meeting.

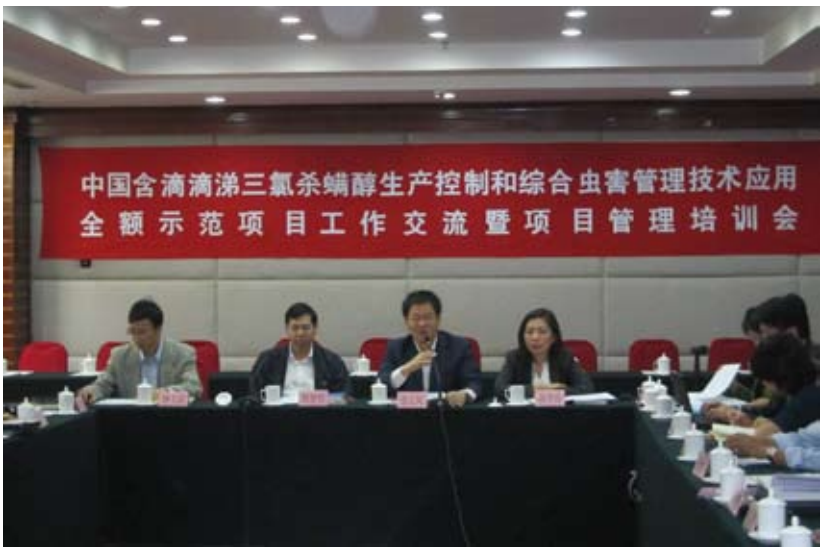
(Source:Division V, FECO)

Views Exchange and Management Training Workshop for "China Full-size DDT-containing Dicofol Production Control and IPM Technology Demonstration Project" Held in Beijing

Views Exchange and Management Training Workshop on "China Full-Size DDT-Containing Dicofol Production Control and Integrated Pest Management (IPM) Technology Demonstration Project" (Dicofol Project) was held from 25 to 26 October 2009 in Beijing.

Following the guidance from the "Management Training Manual on the Implementation of the Dicofol Project" which was compiled under the project, the workshop focused on the project management rules and requirements from aspects of planning management, financial management, procurement management, monitoring and evaluation. Agencies and experts who participated in the IPM activities were invited to present the implementation plan and progress of each activity. The association and synergy among all activities was discussed and a detailed work plan for 2010, which identifies the main tasks for the year, was discussed and agreed upon.

During the workshop the project targets and significance were highlighted to all participants. Each task and management requirements was also clarified, which laid a solid foundation for the efficient and



standard implementation of the project.

Mr. Yu Lifeng, Chief Financial Officer of FECO and Mr. Zhou Puguo, Deputy Director-General of the Department of Crop Farming Administration of MOA attended the meeting and delivered speeches.

The following organizations were represented within the 40 people who attended the meeting: United Nations Development Program (UNDP), National Agricultural Technology Promotion Center (NATPC), Institute for the Control of Agrochemicals of MOA (ICAMA), Plant Protection Institute of the Chinese Academy of Agricultural Sciences (CAAS), RCEES, Plant Protection Stations of Hubei Province, Shandong Province and Shaanxi Province, and the project offices of the three demonstration counties are Yidu of Hubei Province, Zhanhua of Shandong Province, and Luochuan of Shaanxi Province.

(Source:Division V, FECO)

On-site Assessment Workshop on the First Round Lab Results of the "Real Boat Test in the South China Sea" under the "China Alternatives to DDT in Anti-fouling Paint Production Project" Held

FECO organized an on-site assessment workshop on the first round lab results of the "Real Boat Test in South China Sea" under the "China Alternatives to DDT in Anti-Fouling Paint Production Project" (the Anti-Fouling Paint Project) was held in Yangjiang City, Guangdong Province, on 25 October 2009

During the workshop, the on-site assessment of the eight alternatives to DDT-containing anti-fouling paint in the South China Sea real boat test was conducted. The experts agreed that five of the alternatives have good antifouling performances, while one of the alternatives has poor antifouling property. Two are temporarily qualified and need further lab observation. The unqualified alternative will be substituted, to reduce the potential risks during project implementation.

The results of the workshop will form the main reference for choosing alternatives to DDT-containing anti-fouling paint. The following organizations were represented by the 32 people who attended the workshop: Register of fishing vessel of MOA, Institute of Technology of the Naval Armament Department, China National Coatings Industry Association, Oceanic and Fisheries Administration of Guangdong Province, Yangjiang Division of Guangdong Fisheries Administration, Yangjiang Zhapo Slipway Factory, and Alternatives to antifouling paint producers

(Source:Division V, FECO)

Policies and Regulations

POPs Phase-out Pushed by the Guidance on the Structural Adjustment of Petrol and Chemical Industries

China Petrol and Chemical Industry Association (CPCIA) issued the Guidance on the Structural Adjustment of Petrol and Chemical Industries at the Structural Adjustment of Petrol and Chemical Industries Facilitation Forum held in Beijing on October 20 2009. The Guidance included the instructions on phasing out outdated production capacities, curbing surplus capacity, and revitalizing science and technology for the structural adjustment of petrol and chemical industries.

The guidance includes POPs reduction and phase-out in pesticide, coating, and fluorine industries, and is of great significance to the push for POPs replacement and reduction.

For the pesticide industry, the dicofol and lindane production projects using imported DDT as raw materials will be restricted; unenclosed production of dicofol with DDT and PCP production with HCB projects will be phased out; outdated products like chlordane, heptachlor, DDT, toxaphene, HCB and mirex will also be phased out.

For coating industry, the access requirements will be raised, an entry system or standards will be established, disorderly expansion of low-end products will be curbed, the phase-out of DDT or PFOA or other hazardous substance-containing coating products and DDT-containing paint production techniques will be accelerated.

Within its fluorine industry China will restrict the construction of new hydrofluoric acid, PFOS and PFOA production equipment with less than 10,000 tons/ year capacity. In conjunction with this, the development of fluorocarbon surfactant and finishing agent without PFOS/PFOA will be accelerated.

(Sources:National Oil and Chemical Network)

Research Findings

US Research Identifies Links between PFOS/PFOA and Infertility in Women

The US Environmental Health Perspectives (EHP) commented on a study by researchers from University of California at Los Angeles (UCLA) in its September 2009 issue, saying that 'PFOS/PFOA were first proved to be associated with impaired human fertility'.

The researchers measured blood concentrations of PFOA and PFOS in 1,240 pregnant women between the years 1996-2002. Blood samples were drawn from weeks 4 through 14 of pregnancy and women were asked at week 12 how long it had taken to conceive and whether the pregnancy was planned. The study showed that women with higher PFOS/PFOA concentrations were about twice as likely to have taken longer than 12 months to become pregnant or to have required fertility treatments to become pregnant than the group with lower PFOS/PFOA levels. The reason for high PFOS/PFOA blood concentrations creating infertility in women remains unknown.

David Savitz, director of the Disease Prevention and Public Health Institute at Mount Sinai School of Medicine in New York City, believes that the UCLA study is the first study ever in humans on this topic. In his opinion it gives a limited first look at the issue but does encourage continued evaluation of the reproductive toxicity of PFOA and PFOS.

(Sources:EHP)

Pictures of the Pilot Line

Pilot Study of Fly Ash Washing Process Passes Check and Acceptance

"The Pilot Line of Fly Ash Washing Process in Municipal Waste Incinerator" of Beijing BBMG Group's Liulihe Cement Company passed the check and acceptance organised by Beijing Municipal Science and Technology Commission. The project has self-owned intellectual property rights, and provides the basis for the large scale industrialized treatment.

"The Pilot Line of Fly Ash Washing Process in Municipal Waste Incinerator" is the key technology in the 2008-2009 key research programs of Beijing Municipal Science and Technology Commission. The team from Beijing BBMG overcame many technical barriers, and achieved the effective treatment of heavy metals, dioxin and other hazardous wastes in fly ash, and discharge is up to standards. Currently, the capacity of the pilot line is 30 tons/day.

The project has adopted advanced technologies and techniques including secondary countercurrent rinsing, coprecipitation, multi-effect evaporation and special filter aid, to effectively eliminate the heavy metals, chloride ion and other hazardous substances in the fly ash. The rinsing process uses the afterheat of cement kilns as heat source, and 100% of the production water is recycled. After treatment, the fly ash is then calcinated in the cement kiln to complete the environmentally sound treatment.

(Sources:China Cement Net)

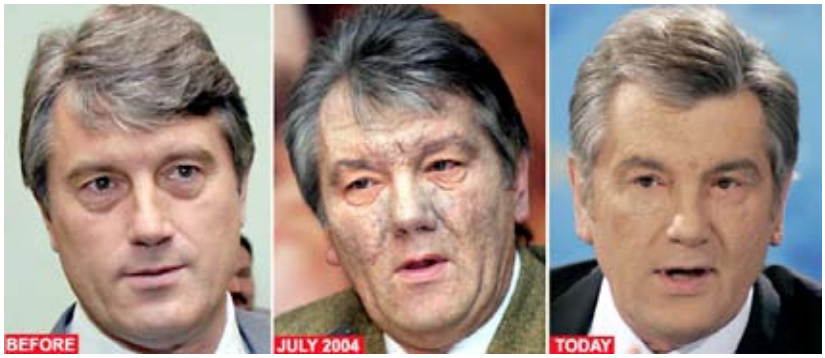
Renowned Medical Journal Lancet Published Research Results of Viktor Yushchenko's Dioxin Poisoning

On October 3 2009, the renowned medical journal Lancet published the current results of the research into Ukrainian President Viktor Yushchenko's dioxin poisoning performed by Swiss scientists

President Yushchenko reportedly showed dioxin TCDD (2, 3, 7, 8-tetrachlorodibenzo-p-dioxin) poisoning symptoms in late December 2004. With GC/MS, the researchers monitored the level of TCDD, and its metabolites, in his blood, fat, face, skin, urine and sweat. Over 100 samples were collected from the course of 3 years. The results showed that TCDD was eliminated from human body faster than expected, and the half-life of TCDD recorded in the president was 15.4 months.

The monitoring results found that the two metabolites of TCDD-2, 3, 7 -trichloro- 8-hydroxydibenzo-p-dioxin and 1, 3, 7, 8-tetrachloro-2-hydroxydibenzo -p-dioxin were detected in the president's face, blood and urine, and mainly eliminated through gastrointestinal tracts.

(Sources:"Lancet")



Photos of Viktor Yushchenko before and after being Poisoned

POPs Sampling and Analysis Instrument Listed for Prioritized Technology Development under the State Torch Plan

The Department of Development Planning of the Ministry of Science and Technology notified the issuance of the "Field for Prioritized Technology Development under the State Torch Plan" on October 13 2009. This plan includes the following 6 fields: Electronics and information, Biotech and new medicine, New material technology, Optical, mechanical and electronic integration, New energy and energy efficiency, and Utilization of environment and resources.

The POPs sampling and analysis system was included in "eco-environment monitoring technologies and equipment" under the category of environmental protection. In addition to this, green manufacturing and eco-materials without polybrominated diphenyl ethers (PBDEs) and other hazardous substances were also listed for prioritized development.

Logo of the State Torch Plan

(Sources:The Ministry Science and Technology of China)

Regional Convention Implementation

Beijing's Dioxin Emissions from Municipal Waste Incineration to Reach EU Standards

At the Forum on Development of the Capital's Environmental Sanitation Industry & Construction of a Livable City held on September 5 2009, Beijing Municipal Commission of City Administration and Environment declared that Beijing will adopt cutting edge technologies and techniques into its treatment of gas produced from waste incineration. Dioxin emission limits from waste incinerations will meet European Union (EU) standards.

Beijing's capacity to incinerate municipal waste is improving rapidly. The quantity of waste incinerated each year is increasing and the public have grown more and more sensitive about the dioxin emitted into the atmosphere through waste incineration. Beijing's future waste incineration emissions will reach EU standards, with the level of dioxin in air emitted from waste incineration to be no more than 0.1 ng TEQ/Nm^3.

At present, Beijing is investing in five municipal waste incineration plants including the Asuwei, Liulitun, Beitiantang and Nangong incineration plants. After completion of these plants in 2015 the city's daily municipal waste incineration capacity will reach 11,000 tons, an increase in incineration percentage from the current portion of less than 10% to 40%.

(Sources:Chinanews)

Meeting

The 1st Academic Council Meeting of the Ministry of Education's Key Laboratory for Solid Waste Treatment and Environmental Safety and Evaluation Workshop on Open Fund Successfully Held

The first Academic Council Meeting of the Ministry of Education's Key Laboratory for Solid Waste Treatment and Environmental Safety and Evaluation Workshop on Open Fund was successfully held in Tsinghua University on September 24 2009. Council members from the following departments attended the meeting: Department of Environmental Science and Engineering of Tsinghua University, Institute of Engi8neering Thermophysics of CAS, Institute of Process Engineering of CAS, College of Environmental Science and Engineering of Tongji University, Research Institute of Solid Waste Control of CRAES, and China Urban Construction Design & Research Institute.

At the meeting, Experts listened to the updates and visited the laboratory. They recognized the positive significance of the laboratory and the achievements made, and discussed key topics including academic direction, research orientation, and team building. They also proposed valuable suggestions to the development of the laboratory.

The "Draft Rule of Academic Council of the Ministry of Education's Key Laboratory for Solid Waste Treatment and Environmental Safety" was evaluated and passed at the meeting. All 24 projects applying for the open fund were assessed and 13 projects received funding support. The selected projects included the research on the new metal loaded active carbon for decomposing PCBs and quantitative analysis of the dechlorination/condensation in low temperature dechloridation of UPOPs in incineration fly ash.

(Sources:Tsinghua University)

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