ACAP ARCTIC CONTAMINANTS ACTION PROGRAM

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ACAP
PROGRESS REPORT
TO SENIOR ARCTIC OFFICIALS

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Chairman

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ACAP will continue to implement projects approved by the Ministers to:

- Develop an Integrated Hazardous Waste Management Strategy (IHWMS) focusing on the Northern Regions of the Russian Federation.
- Complete inventory development (Phase I) and safe storage (Phase II) of obsolete pesticides in the remaining Russian Arctic and sub-Arctic priority Regions. Demonstrate environmentally sound destruction of 100 tons of obsolete pesticides (Phase III).
- Assess the performance of Russian hazardous waste destruction facilities to identify sustainable solutions for destruction of hazardous substances, including obsolete pesticides, PCBs and other POPs in an environmentally sound manner using Russian and international standards.
- Implement control technologies for reduction/elimination of dioxin/furan releases at pulp and paper mills, timber mills, cement factories and municipal waste treatment facilities in the Russian Arctic.
- Complete the feasibility study on improved systems for management of mercury-containing waste in Northwest Russia, prepare Terms of References and business plan for a demonstration project in one or two regions of Northwest Russia and implement demonstration projects to address additional mercury-release sectors in Russia (products, coal-fired power plants, non-ferrous metal production).
- Continue further cooperation with UNEP Global Mercury Partnership in achieving measurable mercury reductions of uses and releases at chlor-alkali facilities in the Russian Federation including improvement of storage facilities for mercury-containing waste.
- Cooperate with Ministry of Natural Resources and Environment of Russian Federation to implement environmentally sound management demonstration projects for PCBs in Russia under IHWMS according to the Stockholm Convention.
- Continue work on brominated flame retardants (BFR) as an information exchange network and simultaneously continue the identification of Phase II activities on reduction and elimination of BFRs.
- Establish a new PSG to address contaminants in indigenous communities in remote areas of the Arctic to reduce human exposure to contaminants. Terms of Reference will be developed.

- Implement model projects on safe handling, storage and treatment of local sources of contamination on Franz Josef Land (FJL) in collaboration with AMAP.
- Continue cooperation with the Barents Euro-Arctic Council and NEFCO to address "hot spots" in the Arctic.
- Continue cooperation with NEFCO to finance and facilitate implementation of ACAP projects and mobilize the Project Support Instrument (PSI).
- Collaborate with other WGs of the Arctic Council (AMAP and SDWG) on e.g. quick-action climate mitigation strategies.
- Initiate co-operation to address the contamination issues of the oil and gas sectors in the Arctic based on the findings and recommendations of the Assessment of Oil and Gas Activities in the Arctic by AMAP.
- Facilitate implementation of international actions addressing mitigation of mercury and persistent organic pollutants.
- Enhance outreach and information exchange to promote successful projects of ACAP.

ACAP PROGRESS SINCE SENIOR ARCTIC OFFICIALS MEETING OF APRIL 2009

INTEGRATED HAZARDOUS WASTE MANAGEMENT STRATEGY (IHWMS) (CHAIR: RUSSIA)

Project Steering Group (PSG) chaired by Russia, co-chaired by USA and Norway has continued development of Terms of Reference (TOR). It is expected that ACAP will be able to finalize the ToR in the near future. Russia has prepared a draft strategy paper "Development of the Integrated Hazardous Waste Management Strategy in the Northern Regions of the Russian Federation" containing information on POPs sources, review of pesticide storages, emission inventories and destruction technologies. Funding for this has been contributed by Russia.

ENVIRONMENTALLY SAFE MANAGEMENT OF STOCKS OF OBSOLETE AND PROHIBITED PESTICIDES IN RUSSIA (CHAIR: FINLAND)

Nearly 4000 tonnes of obsolete and prohibited pesticides, from 9 Russian regions impacting the Arctic, have so far been inventoried and repackaged when necessary under the ACAP Program.–Inventory and safe storage activities have progressed and will be finalized in Altai Krai during 2009.

Work on inventories and repackaging in the pilot districts of Krasnojarsk Krai will be initiated as soon as necessary funding will become available.

The inventoried stocks should be destroyed in an environmentally sound manner the soonest to prevent package degradation during extended storage. To facilitate destruction the completion of the project requires demonstrating environmentally sound destruction of 100 t of obsolete pesticides in Phase III. No progress has been made in Surgut facility that PSG reviewed in November 2008, as the environmental assessment is still under review by Rostechnadzor in order to issue the necessary permits. PSG has also identified an optional licensed company in Krasnodar, Krasnodar Krai, that may potentially be used to destroy obsolete pesticides in an environmentally sound manner. PSG will look into possibilities of reviewing the suitability of the facility for ACAP.

Funding expenditures in 2009:
Altai Krai inventories and repackaging finalization $115,000 USD

REDUCTION OF DIOXINS/FURANS RELEASES INTO THE ENVIRONMENT (CHAIR: SWEDEN)

The PSG has focused on its three priority Arctic Regions, Arkhangelsk, Komi and Murmansk. The project is working to initiate Phase III demonstration projects decreasing the dioxin and furan emissions from the following facilities:

- Kotlas Pulp & Paper facility (Arkhangelsk Region)
- Vorkutinskiy cement plant (Komi Republic)
- Syktyvkar Timber Mill (Komi Republic) (Cleaner Production program only)
- Murmansk Municipal Waste Inciniration Plant

The project also investigates the possibilities to link Phase III activities to the Integrated Hazardous Waste Management Strategy.

Funding expenditures in 2009:
None.

REDUCTION OF MERCURY RELEASES FROM ARCTIC STATES (CHAIR: DENMARK)

MERCURY-CONTAINING WASTE IN NW RUSSIA

Demonstration projects in Arkhangelsk have not been initiated due to the restructuring of the Russian environmental authorities. The mercury project may be a component in the Integrated Hazardous Waste Management Strategy.

Funding expenditures in 2009:
None.

OTHER DEMONSTRATION PROJECTS:

COAL-FIRED POWER PLANT MERCURY CONTROL PROJECT (SWEDEN & USA)

USEPA is collaborating with several Russian research institutes on a mercury control project to demonstrate the effectiveness of two sorbents (standard activated carbon and halogenated activated carbon) in reducing mercury emissions at a coal-fired power plant in the Russian Federation. It may also investigate the effectiveness of SO3 injection for enhancing particle control. In May 2009 a team visited the test facilities and the coordinating institutions in Russia to ascertain that all was well.

Project is still in its formulation stages and no funds have been expended. The project is being funded at present by the US. and is moving forward under the financial and management authority of the International Science and Technology Center. Sweden has indicated support for this project. As this project moves forward, contribution from other Arctic countries will be requested this will allow for collection of information on the leaching potential of the associated waste residues expected to be disposed of in a landfill.

Funding expenditures in 2009:
None.

PROPOSED MULTI-POLLUTANT CONTROL PROJECT AT A RUSSIAN ZINC SMELTER (USA & NEFCO)

No progress was made in 2009 awaiting the launch of the PSI and associated activities.

Funding expenditures in 2009:
None.

THE COOPERATION WITH THE UNEP GLOBAL MERCURY PARTNERSHIP TO REDUCE MERCURY CONSUMPTION AND RELEASES AT RUSSIAN CHLOR-ALKALI PRODUCTION FACILITIES (USA & RUSSIA)

The waste-water treatment facility at Volgograd “Caustic” is expected to be fully operational by the end of September 2009. This treatment system will allow the extracting of 850-900 kg of mercury from waste-water. Extracted mercury will not be returned to the surplus mercury market, but rather will be reused in the facility’s production cycle. (The waste-water sent for treatment contains 30mg of mercury per litter. After treatment, the amount of mercury is reduced to 0.0002-0.0004 mg per litter.)

The Mercury Monitoring System, MMS-16, which is in transit from a German firm to the Volgograd “Caustic” facility, and which measures discharges of mercury into the air at multiple sampling points, is still undergoing the clearance process at Russian customs. Equipment has up to

16 sampling points and will allow quick identification of mercury leaks and spillages. Use of this equipment will allow the facility to reduce mercury losses by up to 200 kg per year.

The Volgograd "Caustic" facility completed the assembly of and is now test-operating two state-of-the-art electrolyzers. These new electrolyzers require minimum maintenance. Since January 2009, the facility has already achieved a reduction of 2.6.kg of mercury releases by using this new technology. The scheduled upgrade of the entire facility will allow reduction of mercury releases by 300 kg per year.

In July 2009, the Kirovo-Chepetsky Joint Stock Company "Zavod Polimerov" began the reconstruction and modernization of its brine conditioning unit. This unit is the major source of mercury in solid waste. This work is planned to be completed by the end of 2010. When completed, the facility will achieve annual reductions of 10 tons of mercury.

Sterlitamak "Caustic" continues implementing their plan to reduce releases of mercury. The ongoing activities include the stabilization of electrical current in the shop, the reduction of those maintenance activities which require the opening of electrolyzers, the use of temporary covers of electrolyzers which are under maintenance, and the modernization of electrolyzers. Since 2005, the Sterlitamac "Caustic" facility achieved total reductions of mercury releases into the air by 212 kg and into solid waste by 1.4 metric tons.

Management of mercury-containing waste: RusChlor, together with experts from the Russian Academy of Science, began work on the review and analysis of current practices, legislation, and compliance on the storage, transportation, and disposal of mercury-containing waste at the PVC production facility "Plastcard." Based on these analyses, they will develop recommendations to improve federal laws covering the management of mercury-containing waste. This work will contribute to the development of the Integrated Hazardous Waste Management System.

PHASE-OUT OF PCBS IN RUSSIA (CHAIRS: RUSSIA, USA AND NEFCO) NEFCO-FUNDED PROJECT

Project aims demonstrate destruction of 250 tonnes of liquid PCBs as well as cleaning and decontaminating PCB equipment. Despite numerous efforts, no progress has been made to move past the barriers preventing completion of the project. The project has therefore been put on hold for a few years. The PSG will now put forward a proposal on how to find a suitable site and obtain the necessary permits now that the environmental authorities within the Russian Federation have been restructured. At the next meeting, the steering group may also wish to consider merging this PSG with the IHWMS or another PSG to facilitate progress. Successful completion of this project is also largely dependent on the implementation

of the ACAP Integrated Hazardous Waste Management Strategy in Russia. The NEFCO PCB Project funds have been earmarked for PCB project(s) under the Project Support Instrument (PSI) and are expected to be mobilized once the PSI is up and running.

Funding expenditures in 2009:
None.

REDUCTION/ELIMINATION OF SOURCES AND RELEASES OF BROMINATED FLAME RETARDANTS (BFR`S) (CHAIR: NORWAY)

The group has started operating as an information exchange network, and is working with Indigenous Peoples Secretariat (IPS) on a fact sheet to inform indigenous peoples about BFRs. The ACAP WG has requested that the PSG consider the Stockholm Convention amendments on penta- and octa BDE and related activities, as well as the Convention's POPs Review Committee's work in progress on other flame retardants with the aim of identifying potential projects to assist the work of the Convention.

Funding expenditures in 2009:
None.

INDIGENOUS PEOPLES CONTAMINANTS ACTION (IPCA) (CHAIR: TO BE DECIDED)

The first draft terms of reference has been prepared by RAIPON in cooperation with other indigenous peoples' groups and made available for comments of the ACAP WG in September, 2009. It is expected that the Terms of Reference will be discussed and approved intersessionally within the next few months and the activities initiated in 2010.

Funding expenditures in 2009:
None.

OTHER ACAP ACTIVITIES SINCE APRIL, 2009

ACAP has developed and adopted the Project development process description to give stakeholders a transparent and consistent understanding of the ACAP project development and implementation. This document contributes to the development of new ACAP projects.

OTHER ACAP RELATED INFORMATION

NEFCO (together with contributions from Finland and Sweden) has earmarked/ disbursed money for a preliminary feasibility study to look at collection, recovery and recycling of ODS containing refrigeration / AC equipment (waste electrical and electronic equipment) and examine possibilities for associated carbon credit financing possibilities through the voluntary market.

INTERNATIONAL TRAINING WORKSHOP ON ENVIRONMENTALLY SAFE MANAGEMENT OF HAZARDOUS WASTES, INCLUDING OCCUPATIONAL HEALTH AND SAFETY ISSUES

In accordance with decision of the UNEP/GEF Project Steering Committee the Project Office in coordination with US Environmental Protection Agency (USEPA) and with assistance of the Ministry of Natural Resources and Environment of the Russian Federation (MNRE of Russia), ACAP Secretariat and International Centre of Educational Systems (ICES)/UNESCO held on 20-23 July 2009 the International Training Workshop on Environmentally Safe Management of Hazardous Wastes, Including Occupational Health and Safety Issues. The purpose of the training was to increase trainees' knowledge on the latest methods of ensuring environmental safety in operations involving handling of hazardous waste, including issues of occupational health. A special attention was paid also to the issues related to removal of drums containing residues of hazardous materials, all aspects associated with handling outdated pesticides, reclamation operations, etc.

Specialists from Russian Arctic regions as well as from federal and local agencies, representatives of indigenous communities and NGOs directly involved in hazardous waste products collecting, their handling, transportation and management were invited to participate in the workshop.

The training was delivered by qualified specialists of the Russian Ministry of Natural Resources and Environment, Rostechnadzor, and Rospotrebnadzor (Russian Consumers Inspectorate), as well as by professionals representing organizations specializing in the practical aspects of waste handling.

Invited USEPA experts made sound input in the workshop by supplemented the seminar with theoretical lectures and practical exercises on occupational health issues and environmentally safe handling of waste in accordance with USEPA generally accepted procedures. They also provided necessary for exercises teaching materials and familiarized trainees with up-to-date environment controlling and monitoring instruments, personal protective equipment, with basics of hazard recognition, site entry and reconnaissance strategies and other. Outside exercises on the test site of garbage-disposal plant (GUP "Ecotekhprom") were held in the course end. During these exercises the trainees could mastering theoretical knowledge received in a classroom.

Participated the workshop (32hours course) and passed an examination students obtained Russian and USEPA certificates for hazardous waste handling.