ACAP

Arctic Council Action Plan to Eliminate Pollution of the Arctic

---

ACAP
PROGRESS REPORT
TO SENIOR ARCTIC OFFICIALS

By Bob Dyer
Chairman

26-27 April 2006
Syktyvkar, Russia

Overview of ACAP Progress since SAO Meeting of 12-14 October 2005 in Khanty-Mansiysk

The most recent ACAP Steering Committee meeting was held on 29-30 April 2006 at the Danish Polar Center in Copenhagen, Denmark

- The ACAP Steering Committee approved the "Indigenous Peoples Community Action Initiative." It has been distributed to the Senior Arctic Officials for information.

- We continued working closely with RAIPON and Gwich'in Council International on Community Action Projects in Fort Yukon and Nenets Autonomous Region on identifying local sources of contamination from PCBs and obsolete pesticides in the indigenous communities.

- ACAP has been invited to make a presentation at the 5th Meeting of the United Nations Permanent Forum on Indigenous Issues in May 2006 in New York.

- The ACAP Cleaner Production Project at Norilsk Nickel Company, completed in 2005, was awarded a Diploma from the Vernadsky Fund and Environmental Committee of the State Duma. This is one of the highest environmental awards in the Russian Federation.

- The ACAP Chair was invited to make a presentation at the 7th Meeting of Environment Ministers of the BarentsEuro-Arctic Council, Rovaniemi, Finland, 18 October 2005 on "Cooperation with the Arctic Council Action Plan to Eliminate Pollution of the Arctic (ACAP)".

- The Barents Euro-Arctic Council Ministerial Declaration of 19 October 2005:

    - "Commended the cooperation with the Arctic Council to identify and eliminate the hot spots, especially with the Arctic Council Monitoring and Assessment Program (AMAP) and the Arctic Council Action Plan to Eliminate Pollution in the Arctic (ACAP). The first example of this cooperation is the successful analysis, repackaging, and safe storage of obsolete pesticides in the Arkhangelsk Region implemented by the ACAP".

    - It further "emphasized the importance of sustainable chemicals management in the Barents Region and the need for further exchange of experiences in this field,.. In particular the Ministers welcomed the Arctic Council's projects for monitoring persistent organic pollutants and heavy metals of importance in the region and **for reducing the sources of such pollutants**."

- ACAP continued its outreach with UNDP regarding support for technology transfer projects in the Russian Federation in anticipation of Russia ratifying the Stockholm Convention.
-

Note: At the recent negotiations of the Convention of Parties to the Stockholm Convention, polybrominated diphenyl ethers (PBDEs), a class of brominated flame reatardants, were recommended for addition to the list of priority pollutants. Since 2004, ACAP has been evaluating this problem of PBDEs in the Arctic as a project approved by the SAOs and Ministers. It is now an internationally-recognized problem.

ACAP PROJECTS

PHASE-OUT OF PCBS IN RUSSIA (CHAIR: RUSSIA AND AMAP)

Destruction of PCB-Containing Capacitors (USA)

- This is a technology demonstration project to destroy 12,000 PCB-containing capacitors (equating to approximately 200 tons of PCB-liquid waste) using a plasma arc technology.
- Currently a Business Plan is being developed by Volgograd Chimprom for completion by July 2006. NEFCO has agreed to review the Business Plan for ACAP.
- Volgograd "Chimprom" has indicated that all necessary RF licenses and certifications to manage Class 1 hazardous waste are in place.

Destruction of PCB liquids from Transformers (NEFCO)

- NEFCO plans to construct a demonstration facility to destroy 250 tons of PCB liquids from Russian transformers.
- NEFCO is continuing to evaluate possible sites for placement of the destruction facility (e.g. Rostov Region)

PCB Collection and Storage Project (Denmark)

Denmark continues developing a collection and storage program in St. Petersburg and the Leningrad Region to update inventories of PCBs and obsolete pesticides in the area and to ensure proper storage conditions. They are currently awaiting inventory information.

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

- Inventories have been completed and reported for: Komi Republic (19 tons), Tyumen (314 t), Omsk (540 t) and Altai Republic (97 t), Magadan (23 t) and Arkhangelsk (62 t).
- In Altai Krai work is in progress and 251 tones of pesticides have already been inventoried. Altai Krai pesticides stocks are of particular concern because of the

risks associated with potential release to the thousands of rivers which flow through the region.

- Over 1306 tons of obsolete pesticides have been inventoried and placed into safe storage in seven priority Regions.
- A total of 1022 tons of pesticides have been repackaged in seven Arctic and sub-Arctic Regions,.
- Over 457 additional tons of obsolete and prohibited pesticides were discovered during the inventory development in the seven regions.
- 235 tons of unidentified pesticides have been analyzed.
- Significant funding has been contributed by the Russian regions to co-fund these ACAP regional projects.
- Pesticides have been placed into safe storage in the Komi Republic, Tyumen, Omsk, Altai Republic, and Altai Krai.
- Repackaged pesticides from Magadan Region have been sent to the Tomsk Polygon for sub-surface storage.
- Repackaged pesticides from Arkhangelsk Region have been shipped to Krasny Bor for disposal into trenches.
- The Pesticides Project Steering Group visited the Tomsk Polygon toxic and hazardous waste storage site. It was decided to:
    - Determine whether the Tomsk Polygon meets current Russian regulatory requirements for Class 1 toxic and hazardous waste disposal or storage
    - Obtain a commitment from Federal and local authorities to strengthen the prohibition on transport of obsolete pesticide wastes to landfills and other that do not meet RF regulatory requirements
- Phase 3 of this project will be the destruction of the obsolete pesticides, possibly using the same plasma arc facility which is being developed for destruction of PCBs from Russian capacitors or the facility being developed by NEFCO for PCB-containing Russian transformers.
- Finland noted that it has the technical capability to assist Russia in the destruction of the obsolete and prohibited pesticides at a cost which is only one half of the cost for disposal at Krasny Bor near St.Petersburg.

Bi-lateral Project of Denmark with Pskov and Vologda Regions

- Identification, inventory, repackaging, removal of obsolete pesticides, and improvement of safe storage facilities has continued in Pskov and Vologda.
- A total of 180 tons of obsolete and prohibited pesticides have now been placed in safe storage in Vologda and 500 tons in Pskov.
- Storage facilities, Pskov I and II, have been improved and designed with optimal stacking and drive-through arrangements.
- An unfortunate fire occurred late in 2005 at Pskov II which is currently under investigation and subsequent remediation by local authorities.
- An additional 200 – 400 tons of obsolete pesticides stocks remain in Pskov awaiting repackaging and transport to safe storage.

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

- Phase II has been initiated
    - Cleaner Production Program has been initiated at a second pulp and paper facility in Arkhangelsk Region, the Kotlas Pulp and Paper Combine.
    - A Feasibility Study will be developed to identify measures to reduce/eliminate dioxins and furans from major sources identified in the Phase I Report titled,"Evaluation of Major Dioxins/Furans Sources in Arkhangelsk and Murmansk Regions and Republic of Komi".
- Phase III will focus on implementation of pilot demonstration projects identified in the Phase II Feasibility Study.

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

Phase 1 – Projects to Identify Main Source Categories and Prioritize Source Categories for Possible Reduction Measures

- "Mercury – a priority pollutant" Fact Sheet updated and released in collaboration with AMAP
- Final hardcopy and electronic copy of reports are available:
    - "Arctic Mercury Releases Inventory"
    - "Assessment of Mercury Releases from the Russian Federation" (in English and Russian languages)
- An additional report, "Assessment of Existing and Planned Initiatives Addressing Mercury Sources in the Arctic States and Identification of Possible Measures for Follow-up," is scheduled for release later in 2006

Phase 2 – Demonstration Projects for Reduction of Mercury Releases

- **Improved System for Collection, Storage, Transport, and Treatment of Mercury-Containing Waste (MCW) in Northwest Russia**
    - A feasibility study is underway to be completed in 2007.
    - Fact-finding visits in January-February 2006 to two sites identified on the NEFCO-AMAP-Barents Euro-Arctic Council "Hot Spots" List revealed the following:
        - The "hot spot" in the Nenets Autonomous District lacks facilities and capacity to manage MCW and, therefore, may be a good candidate for a pilot demonstration project. There is strong interest in addressing this problem from both the Regional Rosterchnadzor and the municipality. The Region may provide co-funding for a demonstration project.
    - A seminar on MCW management will be held by the Danish EPA in St. Petersburg in September 2006.

- **Mercury Reduction in the Chlor-Alkali Industry in the Russian Federation**

This new ACAP initiative also directly responds to the UNEP Governing Council (GC23) Partnership initiative to reduce sources of mercury in the environment

A "mercury audit" has been completed at the three chlor-alkali facilities in Russia (Volgograd "Caustic", Sterlitamak "Caustic" and Kirovo-Chepetsk Chemical Combine).
A workshop was held in Volgograd to share international experiences and best practices.
Volgograd "Caustic" participated in technical exchange program with chlor-alkali facilities in Germany, Spain and Italy.
A Cleaner Production Training at Volgograd "Caustic" is underway.
Next step: Implementation of two to five priority mercury-reduction technical projects at Volgograd "Caustic".
Report results of the first chlor-alkali partnership at the UNEP Governing Council meeting in Nairobi in February 2007

Phase 2 – Other Projects under Consideration

- Demonstration project to determine the effectiveness of sorbent technology to reduce mercury emissions from coal-fired power plants
- Mercury release reduction project at a zinc smelter in Cheleyabinsk .

Note: Mercury emissions from coal-fired plants in China may be an important contributor to mercury pollution in the Arctic. It has been suggested at the ACAP Steering Committee to consider addressing this source of mercury contamination.

BROMINATED FLAME RETARDANTS (BFRS) (CHAIR: NORWAY)

- The BFR Project Steering Group was formed in 2005 and has is assembling information from participating countries on inventory, production, and import/export of BFR chemicals and BFR-containing products.
- A detailed BFR Fact Sheet has been developed by ACAP in cooperation with AMAP and has been posted to both websites.
- **Phase II** will concentrate on evaluation of alternative compounds, improved management practices, and BFR-reduction strategies.

ACAP INDIGENOUS PEOPLES COMMUNITY ACTION INITIATIVE

Current activities:

Cord Blood Monitoring
Management of PCB-containing electrical equipment in Fort Yukon, Alaska
Management of PCBs, obsolete pesticides and mercury in Nenets Autonomous District of Russia
Planned activities:
Work with Aleut International Association on management of PCBs and obsolete pesticides in Aleutian, Komandor and Pribiloff Islands

Work with RAIPON at Indigenous Communities in Chukotka Region in Far East of Russia

Community-based model for PCB mitigation in the Arctic – Gwich'in Council International (GCI)

On-site inspection for obsolete electrical equipment has been completed in four Alaskan villages (Venetie, Beaver,Kivalina and Fort Yukon)

Twenty one obsolete electrical transformers have been identified (one was punctured and leaking).

Samples of the transformer liquids have been collected and analyzed

Next Steps:
complete sampling and analysis of transformer liquids

Package the transformers for shipment to Seattle for safe storage and treatment

Inventory of Unaccounted Sources of PCBs
and Obsolete Pesticides in the Indigenous
Communities - Russian Association of Indigenous People of the North (RAIPON)

In June 2005, activities started in one of three selected indigenous villages in the Nenets Autonomous Region to include:
Training of the local population to identify sources of PCBs and obsolete pesticides.
Collection of samples from the local landfills to test for PCBs and pesticides.
Provide new food storage containers to local communities to replace POPs-contaminated containers used in some households.
Conduct a special training course on safe food consumption for schools and community education programs.

The mission of this Community Action Initiative is to build a grassroots capacity using a holistic, culturally relevant approach to address pollution issues in Arctic Indigenous Communities.

Input from Indigenous Community:

- RAIPON has expressed great appreciation for the continued work and persistence from the international community in facilitating progress with the Russian Federation despite the difficulties associated with the constant reorganization. They point to ACAP and its projects as a fine example of Arctic cooperation.