

**NEFCO & Barents Hot Spots Facility:**

**PROGRESS REPORT**  
**for BEAC Environmental Ministerial Meeting**

**9 November 2007, Moscow**

**Short background**

NEFCO is international financial institution owned by the Nordic Governments with a special mandate to work with environmental issues and projects in the Barents and Arctic regions.

NEFCO is an observer in the Arctic and the Barents Euro-Arctic Councils, and is furthermore active in several other international organs with a focus on the Russian North. The work with the environmental “hot spots” in the Russian Barents Region that were defined by NEFCO in collaboration with the Arctic Monitoring and Assessment Programme (AMAP) in 2003<sup>1</sup> is of particular importance. In this respect, NEFCO reports to the BEAC WGE and strives to co-ordinate its work also with the RWGE as well as the WGE Sub-groups for Cleaner Production and Environmentally Sound Consumption and Water Issues.

In Karelia and (recently) the Komi Republic, special working groups have been organised at the oblast level to deal with the environmental hot spots on their territory.



**One of many sunken ships in the Kola Bay - one of 42 environmental hot spots in the Russian Barents Region**  
*/Photo: Vladimir Bakharev, EHEF, Murmansk*

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<sup>1</sup> The NEFCO/AMAP report can be downloaded in English or Russian at NEFCO's website: [www.nefco.org](http://www.nefco.org).



## **General - BHSF**

NEFCO's most important financial tools for working with the environmental hot spots is the **Barents Hot Spots Facility (BHSF)**, which is managed by NEFCO on behalf of the Governments of Finland, Iceland, Norway and Sweden. The purpose of the BHSF is to contribute to the development of realistic projects related to the 42 "environmental hot spots" defined in the NEFCO/AMAP report, or to issues of a similar dignity in the Russian Barents Region. The nuclear safety sector is not included. The Facility's main task is to provide grants to finance technical assistance, typically key pre-feasibility and feasibility studies, business and financing plans, or environmental impact assessments. BHSF is not as such a source of financing for actual project implementation, although from time to time the Facility may also allocate limited funds for implementation of particularly crucial projects or components.

So far, 36 projects or other specific measures have been approved for allocations from the BHSF. The assets of the BHSF amount to ca 3 MEUR.

## **Ad-hoc Task Force**

The necessity to introduce **proper criteria and procedures for the elimination of environmental hot spots** has been addressed in the WGE. It was decided that an **ad-hoc task force** will be formed to address this issue. NEFCO was requested to chair this group and manage this important task on behalf of the WGE. The other involved parties will nominate their candidates. Initially, these are expected to comprise:

- The RF Ministry of Natural Resources
- Rostekhnadzor
- Roshydromet
- Sanepidemnadzor
- The Barents Regions
- The Norwegian Centre for Cleaner Production in Moscow

The Group should report to the WGE, concerning principal issues as well as proposals on concrete procedures and criteria. The funding of the Task Force's work has not been specified.

## **Database for Barents environmental hot spots**

A **prototype of a database covering the Barents environmental hot spots** has been developed on NEFCO's behalf. Based on further feedback from the WGE stakeholders, NEFCO will continue to develop the data base and fill it with contents. A selected Barents Energy Efficiency Centre will act as main editor (and translator) of the data base, with each EEC in charge of the data collection and compilation within its region, with the regional environmental authorities as the main sources of input. NEFCO has secured funds for the operation of the data base in the short term. Its long-term funding remains to be addressed by the WGE.



## Sector studies

Special sector studies on hot spots issues have been prepared for the **paper & pulp sector**, the **mining & metallurgical sector**, and for the general **potential to develop JI project** in relation to the Barents environmental hot spots. The study on the mining industry includes an investigation of the **Umbozero ore mine** as a potential additional hot spot, and will be complemented by a special study on the **energy efficiency potential** in the sector. A study concerning the large **CHPs in Archangelsk and Severodvinsk (A2 and A3)** and the general energy situation in Archangelsk Oblast has been done, and another one is underway on general **waste management issues in Archangelsk Oblast and Nenets AO** that will provide a needed framework for development of waste and landfill management projects in Archangelsk city and other places.

The main purpose of these studies is to serve as a basis for NEFCO's further strategies and priorities in the areas concerned. Only to a certain extent they may also be shared in a wider circle for more general reference.

## Major assignments in Karelia

BHSF-funded Nordic consultants are in full progress with three major assignments in Karelia, co-operating with their local counterparties in Petrozavodsk:

- **“Oil Boiler Conversion to Natural Gas at the Central Boiler Plant of the City of Petrozavodsk, Republic of Karelia” - Pöyry Energy Oy** of Finland;
- **“Municipal Oil and Coal Boiler Conversion to Natural Gas and Local Biofuels in the Republic of Karelia” - Norsk Energi** together with **ECON** of Norway;
- **“Development of Integrated Waste Management System (IWMS) in the City of Petrozavodsk” - Pöyry Environment Oy** of Finland.

Final reports are expected later in the autumn. All three assignments include the development of JI structures, and draft Project Design Documents (PDDs) have been worked out and delivered. A deal based on the study on the central boiler house in Petrozavodsk is imminent for signing between TGF (- a carbon fund managed by NEFCO) and the local party PKS (- a subsidiary of RKS). With the help of local entrepreneurs and sub-consultants, Pöyry Environment Oy will carry out **methane measurements at the Petrozavodsk landfill** in connection to the study on waste management in Petrozavodsk. A seminar dedicated to **peat as a source of energy** was arranged in Petrozavodsk in the early summer.

A tender has been concluded for the **Joint Rehabilitation/Upgrading of Water Services and Waste Water Services in Selected Regional Cities in the Republic of Karelia** and negotiations are underway with the successful bidder. However, a parallel tender for the **Rehabilitation of the Waste Water Treatment System in the City of Petrozavodsk** has been temporarily put on hold, as there is a need to investigate further whether any key components of the assignment will require modifications.

## Major assignments in Murmansk Oblast

The consultant (Pöyry Environment) behind the assignment “**M6 - Water quality in Kola River and Bolshoye Lake used for drinking water supply of Murmansk city**” has presented his final report, and it has been approved by the local beneficiary, Murmanskvodokanal. Discussions with NEFCO are ongoing concerning how to proceed with the proposed projects. The prioritized short-term investment programme will include the connection of the central sewerage area of Murmansk City to the Northern WWTP and provision of disinfection of supplied water and effluents from outlets along the Kola River.

NEFCO is involved in several important measures to clean up the Kola Bay from sunken vessels and objects that are hazards to the environment as well as to navigation on the Bay (**M9**). The detailed plan concerning the **lifting and environmentally acceptable scrapping of the Teriberka hunting ship**, which lies on the bottom of the Kola Bay, has been worked out and is awaiting local approval. Agreement concerning the creation of a **data base for environmental hazards and status of the Kola Bay** as well as clean-up measures on the **Lavna and Tri Ruchya ship dumping sites** are imminent. There is an ongoing discussion with NPA-Arctic and other parties concerning co-financing of the additional measures that are in present focus in relation to the clean-up of the Bay.

## Other work in progress

The Moscow-based Russian Polar Foundation has concluded the initial survey of **Franz Josef Land (A7-2)**, which was carried out in September with the help of helicopters based on the Russian polar ship “Somov”. NEFCO/BHSF co-finances this initiating step during the International Polar Year together with the Foundation. Samples and other findings from the survey will be examined during the following months, and the result will lay the foundations for the actual clean-up actions at Franz Josef Land in the coming years. This is a key priority for the Arctic and Barents environmental efforts as well as in many other for a, and also an important precedent for the general issue of cleaning up contaminated former military sites in Russia.



**Scrap and waste left behind in Franz Josef Land**  
*Photo courtesy Russian Polar Foundation*



Consultants BioForsk of Norway have finalised a study concerning **small-scale wastewater treatment for Kenozero National Park** in Archangelsk Oblast and other remote settlements in the area. The consultant has compiled an inventory of relevant Nordic technologies in this field for reference, and has proposed a particular wastewater solution for Kenozero that has met with local approval. The proposal is an ecological and sustainable solution based on locally available material only and as it will be very easy to build and maintain it is expected to prove a cost-efficient solution that may serve as a wastewater pilot project for other small communities in the entire region. The project in Kenozero will be carried out in connection to a drinking water programme that is sponsored also by Norway and the regional budget.

Preparations have been made for the pre-feasibility study for **Sustainable Solution for Energy and Related Environmental Issues in the Solovets Archipelago (Solovki)**. However, there is an ever-increasing number of Russian and international stakeholders that wish to proceed with various studies and measures on the Solovki, but an appalling lack of co-ordination between them. NEFCO will therefore need to further clarify the situation before we may decide on how to proceed. As far as we are aware at present, there is no new clarity on what may or may not be done on the islands given their status as a UNESCO World Heritage site. The issue was discussed at a recent meeting with a delegation from Archangelsk Oblast visiting Helsinki, and further guidelines were agreed on how NEFCO shall proceed together with the Oblast's Working Group on Solovki.

ACAP, as represented by DEPA (Denmark), has finally come to an agreement with Rostekhnadzor on the **ACAP Demonstration Project on collection, storage and treatment of mercury-containing waste (MCW)** in the NW Region of the Russian Federation. It is expected that the contracted consultant (COWI) will commence its work on this soon. The Danish assignment is co-financed by BHSF, Norway and Finland.

A consultant has been hired to support Nordic contributions to the new regional strategy and policy for **waste management in Murmansk Oblast**. The consultant has presented his initial inventory of possible Nordic partners in the implementation of the new waste strategy, but since the strategy itself has not yet been presented, this assignment is currently on hold.

### **Other work currently not in progress**

Terms of Reference are still not agreed concerning the assignments on **spent motor oil and oil contaminated sites in Archangelsk Oblast and NAO (A8)**, **fish processing industry in Murmansk Oblast**, as well as the already mentioned energy efficiency for the mining and metallurgical industry or the **Apatity CHP (M4)**. There was no known recent progress concerning the number of potential **projects in the oil waste sector in Murmansk (M10)** that NEFCO in some way is involved in. There is also no news on **Kondopoga PPM (K1)** in Karelia.

A discussion concerning the **Kolguev Island** within the ECORA framework has been initiated with the Swedish EPA and a concrete proposal for action related to energy, water and waste will be presented soon. The same goes for the **reforestation of tailings ponds in Murmansk Oblast** as well as the **waste management projects in Severodvinsk (Archangelsk Oblast)** and **Syktyvkar (Komi)**. Approvals and preparatory work are underway concerning an **integrated heat sector project** with conversion to biomass, potential waste incineration and pellets production in **Kostamus** in Karelia.



## NEFCO and related fora

NEFCO has the status of Partner Agency in the Russian NPA-Arctic framework. Its Steering Committee approved this year the "Procedure of Co-financing through NEFCO Funds and Relevant Reporting" that will form the basis for NEFCO co-financing within the NPA-Arctic programme, which in several cases overlaps the Barents Environmental Hot Spots. NEFCO will follow up and co-ordinate related projects and measures, such as the US EPA sponsored installation of new electrostatic precipitators at the **Archangelsk PPM (A4)**. For all these projects there will be special reporting requirements worked out with the NPA-Arctic Project Office in Moscow.

Related to the Arctic Council, NEFCO continues to press for the activation of the **Project Support Instrument (PSI)**, which is to be administered by NEFCO and will relate to the funding of preparation measures in projects under the aegis of the Arctic Council and ACAP. Recent discussions in Moscow involving the Finance Ministry and Rostekhnadzor raise some hopes that this facility will become operational within soon. The latest Russian initiative aims at coupling the PSI to the long over-due implementation of a proper facility for destruction of certain kinds of hazardous waste (notably PCB) in Russia, which is a prioritised ACAP "fast track" project promoted by NEFCO. Such a facility will be important also for some final destruction of hazardous pollutants related to the Barents regions and hot spots.

Together with the Swedish EPA, acting under an ACAP mandate on dioxins, NEFCO is investigating proper way to promote improvements at the **Murmansk Waste Incinerator**, which is considered a major dioxins polluter in the entire region.

The Ministry for Economic Development and Trade has indicated a new initiative for the co-ordination of environmental and health projects in the Russian Arctic to benefit from federal funding under a Special Purpose Programme. NEFCO intends to investigate the substance and potential of this initiative.

At the NDEP Steering Group meeting in Helsinki in October, NEFCO was accepted as a member of the steering group. The decision will need formal approval by the NDEP Assembly. Certain environmental hot spots project may qualify for grants from the NDEP Support Fund that already today has approved contributions to the larger IFIs' water sector projects in Archangelsk and Syktyvkar, and to a district heating project in Murmansk.

## Other actors and the hot spots

Needless to say, important actions and investments as well as other contributions towards the elimination of the Barents environmental hot spots are made by actors that are unrelated to NEFCO and its work in this field. Such actors include other bilateral and inter-regional programmes, as well as Russian budget organisations on various levels, and Russian sponsors and project owners. Some of them are related to investments in the private sector companies concerned, in particular in the metallurgical, paper and power industries. Usually, such investments do not have specific environmental targets but provide ecological improvements as a side effect to the economic benefits.



In some cases, such as **Archangelsk PPM**, cleaner production programmes have been carried out or are planned. Under ACAP's dioxins & furans programmes, important measures are planned at **Kotlas PPM** and the **Vorkuta Cement Plant**. Last but not least, there are some notable successes related to **obsolete pesticides**, for instance related to ACAP's programme and Finland's bilateral efforts in this field.

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