

NDEP News

February 2015, Issue 36

In this issue

- Assembly of Contributors convenes in London (5 December 2014)
- Interview with Mr Anatoly Grigoriev, Deputy Head of Department at Rosatom on the work and achievements of the NDEP nuclear window
- Focus on NDEP activities in Belarus and new opportunities to improve the ecology of the Baltic Sea

Plus

- NDEP projects in brief

NDEP Assembly Convenes in London



(from left) Mr Vince Novak, Director of the EBRD Nuclear Safety Department, Mr Vincent Degert, Assembly Chair and Head of Division at EU EEAS, Mr Andras Simor, EBRD Vice President

The annual meeting of the NDEP governing body took place on 5 December 2014 in the offices of the EBRD in London. The European Union, the largest Contributor to the Fund, chaired the meeting attended by delegations from Belarus, Denmark, Finland, Germany, Norway, Russia and Sweden alongside the participating Financial Institutions which include the EBRD, EIB, NIB, NEFCO and KfW.

The EBRD Vice President Mr Andras Simor highlighted NDEP achievements in 2014. In October 2014, the Lepse ship made its last short journey and was placed on the slipway at Nerpa shipyard. The elimination of the hazards associated with Lepse has been a key target for Russia and the international community for more than two decades. Equally there has been good progress with the removal of the highly enriched spent nuclear fuel from the Papa-class submarine reactors and with related projects in Andreeva Bay. It is of paramount importance

to complete the Andreeva Bay projects as scheduled to allow for the commencement of the removal of the nuclear material from the site in 2016. Regarding the environmental window, Mr Simor noted swift implementation of the on-going projects and a high level of disbursements of grant funds. Compared with previous years, over EUR 18 million was disbursed in 2014 which makes it the highest amount so far. The EBRD Vice President thanked all the donors for fulfilling their commitments to the Fund.

On behalf of Russia, Mr Igor Kapyrin, Deputy Director of the Common European Department at the Russian Ministry of Foreign Affairs, stressed the importance of NDEP to Russia and its common goals to improve the environment round the Baltic Sea. Mr Kapyrin informed that Russia is in the process of transferring the next payment of EUR 5 million to the NDEP environmental window.

With reference to the nuclear window, Mr Anatoly Grigoriev, Deputy Head of Department at Rosatom, assured of Russia's commitment to eliminating the nuclear legacy from the Soviet era and informed that Russia allocates between EUR 50 to 90 million for this purpose annually. The objective is to remove all the legacy of the spent nuclear fuel from the north-west by the beginning of 2020.



(from left) Mr Anatoly Grigoriev, Deputy Head of Department, Rosatom, Mr Anton Solodushenkov, Chief Expert, Rosatom, Mr Igor Kapyrin, Deputy Director, Russian Ministry of Foreign Affairs, Ms Zhanna Tikhonova, Senior Adviser, Russian Ministry of Finance

The Chair of the Assembly, Mr Vincent Degert thanked all the Northern Dimension partners, donors and international financing institutions for their work to make NDEP a successful partnership, which delivers concrete results to improve the living conditions of the population round the Baltic and Barents Seas region. In the short term, the clear priority for NDEP is effective implementation of the on-going projects to which the EU and other donors have contributed substantial funds.



The EU urged all the stakeholders to do their utmost to ensure completion of the high profile wastewater treatment project in Kaliningrad. In due course, the EU would like to resume the discussion on the future priorities for the NDEP environmental window. The EU also welcomed a possibility of further activities in Belarus in line with the NDEP mandate to eliminate the environmental impacts of cross border pollution.



NDEP Assembly of Contributors, 5 December 2014

The Assembly reviewed the financial status of the NDEP Support Fund, which at the end of 2014 stood at EUR 347.2 million with EUR 166.6 million earmarked for the nuclear window and EUR 180.6 million for the environmental projects.

The next Assembly meeting is planned for 20 November 2015 at the EBRD in London.

Interview with Mr Anatoly Grigoriev, Deputy Head of Department at Rosatom

Mr Anatoly Grigoriev (photo right) has been working closely with the NDEP projects since 2004. A short interview with him follows.



• When did you start working with the NDEP, and what is your opinion on the results achieved so far?

I started working with the NDEP Nuclear Window project in 2004. I participated in the development of proposals for Grant Implementing Agreements (GIA) No. 1 and No. 2. Under the first Agreement, we developed a Strategic Master Plan (SMP) for recycling and environmental rehabilitation of decommissioned nuclear fleet assets and their support infrastructure in Russia's North West, and under the second one we implemented urgent projects for the SNF and RW temporary storage facility in Gremikha. Later on, I had the opportunity to participate in the justification of the adoption of other GIA as well. The results achieved in the process of their implementation usually corresponded to the targets set out in the technical proposals.

It has to be said that the radiation monitoring and emergency response systems installed in Murmansk and

Arkhangelsk oblasts are working very well. Equally, it would be hard to overestimate the impact of the SMP on the application of a systemic approach to environmental rehabilitation.

So I can say that my opinion is that the results have been good. The only thing I could have wished for would have been for these good results to be achieved as quickly as possible. But time is a subjective factor, and one can often find that quick is not always the same as good.

• Based on your experience, what should be done within the framework of multilateral cooperation to ensure that all problems have been taken into account and were clear and understandable both technically and strategically?

To take all problems into account, we need rigorous monitoring of the operation of nuclear power facilities. In the case of problems arising out of Russia's nuclear legacy, there was no monitoring of some of the facilities and the initial information was incomplete, and in some cases unreliable. To arrive at a correct decision, we will need additional assessment of the initial information by highly skilled professionals, examination of alternative approaches for each facility, group discussion and finally selection of the most acceptable option.

It was therefore undoubtedly right to develop the SMP. A large number of Russian experts and international consultants were involved in its development. Together they were able to collect and systematise the information, discuss it in a planned way and subject it to a comprehensive assessment. This resulted in the preparation of an excellent document, which enabled both Rosatom and the donor countries to plan their way forward. Conclusions on the complexity of the various projects and their environmental hazard and cost made it possible to prioritise their implementation. The completed document was endorsed by the NDEP Operating Committee and approved by the Assembly of Contributors. Later on, the SMP itself was approved by the General Director of Rosatom.

The SMP is a comprehensive document which takes into account the technical features, strategic objectives and priorities of addressing complex environmental issues. During our work on the SMP, we developed and implemented the Project Management Information System (PMIS). With the Grant completed, Rosatom is continuing to operate PMIS, using it as a tool which allows it to take into consideration and resolve all complex environmental legacy problems.

• How important was it for Rosatom and for you personally to see lifting of Lepse out of the water and placing her into dry dock last year?



Lepse ship in a dry dock, October 2014

Raising the Lepse and placing it on the slipway became an important stage of the preparation for the dismantling of this vessel, which constitutes a nuclear hazard. We are now moving on to its actual recycling, and the subsequent preparation of two packages, the construction of a DSU enclosure and the delivery of SNF retrieval equipment. The fact that the Lepse has been placed on the slipway gives us confidence that the project has now reached the stage of practical implementation.

• Could you tell us about the progress of the NDEP projects at Andreeva Bay? What are the most difficult and complex aspects of works, and what can we expect in 2015?

The progress of the Andreeva Bay project makes it clear to everyone that the task is not simply complex, but very complex indeed, and this applies both to the project and to the facility. The storage facility contains 22 000 SFA, stored in conditions which do not meet modern requirements for facilities of that kind.

Two facilities will be built to create the SNF transportation infrastructure (an accumulation pad for the shipping casks and a DSU enclosure). A transfer crane will be installed on the pier, while the facilities will have 4 overhead cranes of different lifting capacity. Two vehicles to transport the shipping casks have been made, as well as a trolley system to transport the casks and an SNF transloader; a new transformer substation has also been installed. At present, on-the ground works are at different stages of completion. The project is managed by the Joint Management Group, which consists of specialists from the Federal Centre of Nuclear and Radiation Safety JSC and NUVIA.

This year, the transfer crane and the shipping cask accumulation pad will be put into operation. Of these, the most difficult project is the construction of the DSU enclosure. This is due above all to the inaccurate information about the status of the construction site, and as a consequence, the need to remove large quantities of radionuclide-contaminated soil. Obtaining reliable information has required additional soil surveys. The data obtained enabled us to refine existing solutions, enhancing the reliability of structural components as well as future operational safety. The results of this work hold out the hope that the structure of the building will be erected by the end of 2015, and that interior work can start in the winter of 2016.

I hope that 2015 will prove to be the most successful one in terms of the completion of equipment deliveries and commissioning one of the buildings now under construction.

I should also like to mention the important role played by the Administrator of the NDEP Nuclear Window project in the implementation of all GIA. The EBRD has entrusted this function to the Nuclear Safety Department, with which we have been able to establish excellent cooperation. Together, we have achieved notable results.

• Speaking of the commissioning of Andreeva Bay complex and its operational phase, how will the Russian Federation carry out SNF removal?

Commissioning the SNF management complex is really a separate story. Only when we have brought this story to a satisfactory conclusion will we be able to start on a new stage of SNF removal.

The history of preparation for commissioning, which began in 2001, also involves the continued participation of such donor countries as Norway, Sweden, the UK, Italy as well as the European Commission, and of course all contributors to the NDEP Nuclear Window programme. Every donor plays its own well-defined role – it would take a very long time to describe it all.

Starting operations and transporting SNF for conditioning will require, in addition to the work involved in GIA 007B, also completion of the support infrastructure (decontamination area, roads, utility and power supply systems as well as low power networks); training service personnel in the use of the chosen technology and certifying them; implementing a nuclear material accounting and control system and completing the delivery of diesel generators and RW handling equipment. With the financial support of donor countries, this work will be completed in 2016.

At the present time, Russian Federation funds are being used to assemble, repair and manufacture SNF handling instruments, equipment and devices and to draw up the relevant documents: an EIA (financed by Norway), SNF handling rules and procedures, SNF transportation flow chart, safety assurance evaluation and special conditions of supply. Once drawn up, the document will be agreed with the regulators.

SNF removal will start when the buildings, workshops, lifting gear, transport vehicles, utilities systems, equipment and tools, safety assurance systems and documentation have been completed, personnel trained and certified and works permits granted by the regulators. We are planning to have completed all this by the end of 2016.

Preliminary studies have produced the following removal sequence. The first facility to be emptied will be Tank 2A, followed by Tank 2B and finally Tank 3A. The first to be extracted will be undamaged SNF, not requiring any additional measures during transshipment.

Damaged SNF will be handled during the final stage, after all undamaged SNF has been extracted from all storage tanks. Based on an analysis of the condition of the storage tanks, most experts consider that the bulk of damaged SNF will be contained in Tank 3A. Therefore, the extraction of undamaged SNF from 3A will be followed by the extraction of damaged SNF from the same tank. Damaged SNF will most probably be extracted without recanistering, in the old canisters inserted into new cladding. Old canisters containing damaged SNF will be handled by the Mayak Production Association, where a canister handling shop has been restored with financial assistance from France.

In 2014, as part of SNF removal operator training we started to develop training programmes with the financial support of Norway. The first stage of their development will be completed in mid-2015, and the full programme will be ready by the end of 2015.

A diesel generator installation project is being implemented to ensure uninterrupted power supply to the SNF removal support facilities. Project documentation was prepared in 2014 with Sweden's financial support. The delivery of the diesel generators is planned for 2015, and will be funded by Italy. In 2016 the Russian Federation will finance their installation and connection to the power distribution network.

The SNF will travel from Andreeva Bay to Atomflot in Murmansk, and from there to Mayak. It will be carried by the multipurpose ship Rossita (built with the financial support of Italy) to Murmansk, from where it will travel by rail.

In terms of the timeframe calculated on the basis of the schedule, removal will take 5 – 6 years. In this way, by 2022 we will have made Andreeva Bay a nuclear-free zone.

I am grateful for this opportunity to state my position.

Focus on NDEP activities in Belarus and new opportunities to improve the ecology of the Baltic Sea

The first phase of NDEP co-financed projects in Belarus is moving forward. The most advanced is the Grodno wastewater treatment project for which the NIB is about to issue tender documents in early 2015. The Sida financed consultants are still finalising the basic designs and reviewing the tender dossier for projects in Brest and Vitebsk. The plan is to close the tenders by June 2015 followed by contract awards in early autumn. Following detailed preparations, the projects are now on track for timely implementation and completion in 2018.

Based on the first phase, Belarus has made steps to increase their participation in NDEP. The Belarusian Ambassador to the UK, Mr Sergey Aleinik, confirmed during the Assembly of Contributors on 5 December 2014, that Belarus is intending to increase their donation to the NDEP Support Fund and wishes to implement further environmental projects with assistance from NDEP. A Memorandum of Understanding to that effect was signed in London during the Belarus Business Forum on 28 November 2014 between the EBRD and the Government of Belarus.



Signing of the MoU between Belarus and EBRD, (from left) Mr Nikolai Snopkov, Minister of Economy of Belarus, Mr Jaakko Henttonen, NDEP Manager, (at the back from left) Mr Aleksandr Miknevič the First Deputy Minister of Foreign Affairs and Mr Sergey Aleinik, the Ambassador of Belarus to the UK

Both the EBRD and NEFCO have completed project identification studies for further environmental investments to improve water, wastewater and solid waste management in Belarus. The northern part of Belarus is part of the Baltic Sea basin and there are still many environmental hotspots listed by HELCOM which need to be addressed. Several wastewater treatment facilities date back to 1970s and are in urgent need of modernisation. Once implemented, the wastewater treatment projects in Vitebsk, Grodno and Brest will reduce the phosphorous pollution load to the Baltic Sea by 392 tonnes per year.



Meeting at EBRD London on the next phase of wastewater treatment investments in Belarus

To discuss the next phase, the EBRD, NIB and NEFCO met with the representatives of the Belarusian Government at the EBRD on 20 January 2015. The EBRD Vice President Ms Betsy Nelson welcomed Mr Vladimir Zinovskiy, the newly appointed Minister of Economy, Mr Aleksandr Mikhnevich, the First Deputy Minister of Foreign Affairs and Mr Sergey Aleinik, the Ambassador of Belarus to the UK. On the same day, NEFCO signed a Framework Agreement with the Government of Belarus which will pave way for a substantial increase of NEFCO's lending operations in the country both in the private and municipal sectors.



Signing of the NEFCO Framework Agreement with the Government of Belarus, (from left) Mr Vladimir Zinovskiy, the newly appointed Minister of Economy and Mr Magnus Rystedt, NEFCO Managing Director

NDEP Projects in brief (in million EUR)

| Project | Lead IFI | Total cost | NDEP grant | Progress |
|--|-------------|-------------------------|-------------------------|--------------------------|
| 1. St. Petersburg Southwest Wastewater Treatment Plant | NIB | 193.6 | 5.8 | Completed - in operation |
| 2. St. Petersburg Flood Protection Barrier | EBRD | 2000 | 1 | Completed - in operation |
| 3. St. Petersburg Northern Incinerator | EBRD | 90.4 | 6.35 | Completed - in operation |
| 4. Leningrad Oblast Municipal Programme | NIB | 23.2 | 4 | Completed - in operation |
| 5. Komi Syktyvkar Municipal Services | EBRD | 31.8 | 6 | Completed - in operation |
| 6. Kaliningrad District Heating Rehabilitation | EBRD | 21.8 | 7.3 | Under implementation |
| 7. Archangelsk Municipal Water Services Project | EBRD | 25.5 | 8.2 | Completed |
| 8. Novgorod Water and Wastewater Rehabilitation | NIB | 23 | 3 | Completed |
| 9. St. Petersburg Neva Programme | NIB | 563 | 24 | Under implementation |
| 10. Kaliningrad Water and Environmental Services | EBRD | 110 | 10 | Under implementation |
| 11. Vologda Municipal Water Services | EBRD | 20 | 5.18 | Completed - in operation |
| 12. Kaliningrad Project Implementation Unit | EBRD | 3.8 | 3 | Completed |
| 13. Sosnovyi Bor Municipal Water Services | NEFCO | 3.3 | 0.5 | Completed - in operation |
| 14. PIU for Poultry Farms in Leningrad Oblast | NEFCO | 3.5 | 2 | Under implementation |
| 15. Petrozavodsk Water and Wastewater Rehabilitation | NEFCO | 32 | 5 | Under implementation |
| 16. Ten Suburban WWTP in St Petersburg | NEFCO | 16 | 3.75 | Completed - in operation |
| 17. Petrozavodsk Solid Waste Management | NEFCO | 8.5 | 1.5 | Approved by Assembly |
| 18. Pskov Water/Wastewater Infrastructure Rehabilitation | EBRD | 27.4 | 6.5 | Under implementation |
| 19. Murmansk City Water/Wastewater Rehabilitation | EBRD | 30.1 | 6 | Approved by Assembly |
| 20. Vitebsk Wastewater Treatment Rehabilitation | EBRD | 21.2 | 2 | Under implementation |
| 21. Grodno Water/Wastewater Treatment Rehabilitation | NIB | 25.1 | 2 | Under implementation |
| 22. Brest Water and Wastewater Treatment Rehabilitation | NIB | 18.4 | 2 | Under implementation |
| 23. Vologda District Heating | EBRD | 17.8 | 2 | Under implementation |
| 24. Gatchina Wastewater Treatment Plant | NEFCO | 2.5 | 0.39 | Under implementation |
| 25. Vyborg Wastewater Treatment Plant | NEFCO | 6.5 | 1.25 | Approved by Assembly |
| 26. Gatchina District Heating | NEFCO | 4 | 0.5 | Approved by Assembly |
| 27. Lomonosov District Heating Rehabilitation | EBRD | 15.2 | 2.5 | Approved by Assembly |
| 28. Kaliningrad District Heating Phase 2 | EBRD | 22 | 5 | Approved by Assembly |
| 29. Solid Waste Management in St Petersburg | KfW | 18.4 | 3.2 | Approved by Assembly |
| TOTAL | | €3.4 billion | €130 million | |

The **Northern Dimension Environmental Partnership (NDEP)** was set up in 2001 in response to calls from Russia and the international community for a concerted effort to address environmental problems in the Northern Dimension Area (NDA).

The most pressing actions relate to water, wastewater, solid waste, energy efficiency and nuclear waste.

The NDEP Support Fund is managed by the EBRD and provides grant financing to key investments in environmental and nuclear safety projects in the Northern Dimension Area. NDEP projects are implemented by the EBRD, NIB, NEFCO, EIB, the World Bank and KfW.

The European Union, Russia, Belarus, Belgium, Canada, Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden and the United Kingdom are the sponsors of the NDEP Support Fund, which currently stands at €347.2 million.

For more information, visit www.ndep.org, or contact:

Jaakko Henttonen, EBRD Regional Office, 25 Nevsky Prospect, St Petersburg 191186, Russia - Email: HenttonJ@ebrd.com

NDEP Secretariat: Ewa Manik, EBRD, One Exchange Square, London EC2A 2JN, UK - Email: ManikE@ebrd.com