Minutes of the 19th CEG Meeting
Ottawa – Kincardine, Canada, 4-6 October 2005

The 19th meeting of the IAEA Contact Expert Group (CEG) for International Radioactive Waste Projects in the Russian Federation[1] was held on 4-6 October 2005 in Ottawa and– Kincardine, Ontario Canada. The meeting was organised by the Foreign Affairs, Canada in cooperation with the CEG Secretariat. 63 participants from 11 countries and five international organisations attended the meeting.

Five major topical issues were considered, namely:

1. **State of remediation of the Andreeva Bay site and the Gremikha site.**
2. **Main outcomes and findings of the CEG workshops held in 2005.**
3. **State and perspectives of the Lepse project.**
4. **Lessons learned from cooperative projects.**
5. **CEG organizational and financial matters.**

Two additional presentations were made and received with interest:

1. Welcoming statements *by Mr. Allan Poole, Foreign Affairs Canada and Mr. Viktor Akhunov, Rosatom, Russia.*
2. Overview of international cooperation on Comprehensive dismantlement of nuclear submarines and remediation of radiation-hazardous sites *by Mr. Viktor Akhunov, Rosatom, Russia.*

Overview of international cooperation on Comprehensive dismantlement of nuclear submarines and remediation of radiation-hazardous sites

The current state of international cooperation on dismantling Russian retired nuclear submarines and remediation of nuclear hazardous sites was presented by Mr. Viktor Akhunov, Head of the Department for Decommissioning of Nuclear and Radiation Hazardous Facilities, Rosatom. He mentioned that 195 nuclear submarines (NS) were withdrawn from the service as of 30 September 2005. 122 NS out of this number were dismantled with forming single- three- or multi-compartment units, and 30 NS are in the dismantlement process now (contracts have been signed). 43 NS are still to be dismantled (20 NS at the North-West Russia and 23 NS at the Far East). According to plans this work should be completed by the end of 2010.

Mr. Akhunov underlined that international assistance to Russia in comprehensive dismantlement of NS was extended significantly since the G8 Summit in Kananaskis. Total value of contracts signed starting from 2002 is 355 million USD. However, the assistance is concentrated mainly on the North-West Russia, with only limited work underway in the Far East supported by international assistance. Mr. Akhunov appreciated efficiency and importance of the technical assistance provided by USA, UK, Germany, Norway, Sweden and Japan, and expressed his gratitude to these countries. He also mentioned that recently cooperation with France, European Commission and EBRD became more active, and expressed his hope that first contracts on joint work with Italy would be concluded soon since bilateral agreement with this country has been ratified recently by the Parliaments of Italy and Russia.

Mr. Akhunov explained the problems experienced in the Far East Region, in particular

[1] Established under the auspices of the IAEA with the Secretariat operated by the IAEA.

difficulties in dismantlement of NS located at Kamchatka Peninsula and of two accident NS on Primorsky Territory. He mentioned that Implementing Agreement with Japan on dismantlement of five NS is to be signed shortly. This work would be funded by Japan and Australia that joined the G8 Global Partnership Programme and transferred its contribution in amount of 7 million USD to the account of the Foreign Affairs of Japan. He also expressed a hope that the Government of Canada would consider the possibility to assist Russia in NS dismantlement at Kamchatka.

Mr. Akhunov informed the meeting that during the last five years Russia allocated 70 million USD annually on the NS dismantlement Programme. Besides, funds received from the recycling of the NS dismantlement products are being used for dismantlement activities too. 17 reactor compartment units will be produced this year, including 11 units from the submarines dismantled under the Russian funding. Mr. Akhunov underlined the importance of the long-term planning of the donor assistance for preparation of the Russian plans.

In conclusion he mentioned that a number of bilateral projects and negotiations is being conducted now, but all that have been started with the CEG, and this is its great achievement.

State of remediation of the Andreeva Bay site and the Gremikha

The following presentations were given under this agenda item:

1. State of remediation of the Andreeva Bay site *by Mr. Anatoly Grigoriev, Rosatom, Russia.*
2. Andreeva Bay Coordination Group *by Mr. David Randal Thomas, UK DTI.*
3. State of remediation of the SNF and RW storage site in Gremikha *by Mr. Anatoly Grigoriev, Russia.*
4. France in the G8 Global Partnership against the spread of weapons and materials of mass destruction *by Mr. Gilbert Fady, CEA, France.*

The meeting recognised an important role of the Andreeva Bay Coordination Group in integration of activities supported by several donors at the relatively small site where there is a strong interdependence between the portfolio of projects funded by international donors. In particular the role of the Coordinating Group is crucial in the development of the Comprehensive Engineering and Radiation Survey (KIRO) and Justification of Investments (OBIN) for the management of SNF and RW in the Andreeva Bay that are being conducted now. These studies encompass the activities of Norway, UK and Sweden and will form a basis for future work of other donors (e.g. Italy and EBRD). Sharing information and results of these studies should enable Russian and international funding to be used effectively and facilitate timely implementation of new projects.

The experience of international cooperation in the Andreeva Bay is very important for other projects. It demonstrates the scope of the required preparatory work and the need to establish necessary infrastructure in order to provide safe working conditions for the personnel. Similar approach could be used for remediation of Gremikha and other sites at the Far East. Coordination of donors at different levels through the CEG should lead to effective project implementation.

The meeting noted that the Andreeva Bay Coordination Group could be used as a model for the similar sites where several Donors are being involved already. The establishment of the Coordinating Group for remediation projects at the Gremikha site was supported by the CEG.

The meeting noted that several projects have been initiated in Gremikha under assistance of France and the European Commission. These activities include development of the Global KIRO of the site and supply of some radiation protection equipment. It was also mentioned that the procedures for getting the access permission to the sites and exemption from taxes are very time consuming and require further improvements. Coordination between the donors in organisation of visits is also required in order to reduce the administrative burdens on the Russian side.

The CEG appreciated results of the Russian work on re-establishment of the infrastructure and defuelling of the Alfa-class submarine in Gremikha that took place in September this year.

The meeting discussed possibility of using the piggybacking approach in funding the remediation projects by several donors, which has been implemented successfully in the activities on disposition of chemical weapons and other nuclear projects under the Global Partnership. It was recognised that this approach has many attractive features and benefits and was used already before (Norway, Sweden etc.), however, some donors are not able to apply it since it contradicts the current rules (EC, EBRD etc.). The CEG recommended the use of the piggybacking approach where possible.

Main outcomes and findings of the CEG workshops hold in 2005

Mr. Ingar Amundsen, NRPA, Norway, presented main findings and outcomes of the CEG workshop on RTG decommissioning and replacement, which was organised in February 2005 in Oslo, Norway. In addition, Mr. Alexander Grigoriev, RRC KI, Russia presented information on the follow up activities and current state of international cooperation on this subject. He mentioned that for the time being 630 RTGs have to be dismantled and replaced by alternative sources of energy (where necessary) for power supply of lighthouses and navigation beacons along the Russian coastline. The RTG dismantlement problem will be solved shortly in the North-West Russia and in the Baltic Region, where Western donors are actively involved. However donor's support in the North Region and at the Pacific is very limited. At the same time the cost of the RTG dismantlement and replacement by alternative sources in these regions is two to three times higher than in the European part of Russia.

The CEG members acknowledged that the RTG workshop was very effective in raising the profile of the security and environmental problems associated with RTGs and facilitated interest of the Western Donors to the RTG dismantlement issues. It was noted that for the further expansion of international assistance on securing the RTGs a comprehensive Master Plan of actions should be prepared to provide a clear picture of the current situation and inventory, identify general strategy of the Russian Programme and give a rough estimates of timeframes and resources required. This Master Plan should form a basis for the decision-making process by the Donors. It should include activities that have been completed and a comprehensive coordinated approach for the future. The Russian side informed the CEG that the outline of the RTG Master Plan has been prepared and could be discussed in details at the working level.

The CEG supported the Russian proposal for development of the RTG Master Plan and highlighted the following aspects as of great importance: the Master Plan should be developed by the Russian side providing full transparency of information submitted to the Donors.

The CEG acknowledged the establishment of the International RTG Coordinating Group as a

follow up of the CEG workshop. This group could discuss the content of the RTG Master Plan.

The CEG noted that periodical updating information on RTG inventory would be useful and decided to review that state of the RTG-related activities at the next CEG plenary meeting. The CEG asked the Executive Secretary to prepare information on the IAEA activities on securing RTGs in other countries.

Mr. Vasily Mazokin, NIKIET, Russian Federation, presented the overview of the CEG workshop on dismantlement of Nuclear Service Ships (NSS) and Surface Vessels with Nuclear Power Installations (May 2005, Murmansk, Russian Federation). He mentioned that 36 NSS were withdrawn from service by now and by the end of 2006 this number will increase up to 46 ships. In spite of the fact that NSS do not contain spent nuclear fuel (except Lepse ship) they pose a real danger to the environment because significant amount of radioactive waste is stored on board of the ships and the RW storage compartments were contaminated during the ships operation in the past. At the same time no reliable physical barriers are provided and in case of the ship's sinking radioactive nuclides can easily dissipate into the sea. The NSS dismantlement is a complex engineering task that requires handling of large volumes of solid radioactive waste (mainly contaminated metal). At the same time the absence of regional centres for RW management hamper dismantlement of NSS and they remain afloat posing substantial risk to the environment.

Mr. Vladimir Nikitin, Onega NIPTB, Russian Federation, informed the CEG on the working meeting on dismantlement of the Admiral Ushakov nuclear cruiser that was organised as a follow up of the CEG workshop in Murmansk, and presented specific project proposals on dismantlement of this nuclear powered vessel.

Italy informed the CEG on their plans to support defuelling of the Admiral Ushakov nuclear cruiser and development of the feasibility study on the cruiser dismantlement. Further activities could be decided later on the basis of the obtained results.

CEG endorsed recommendations of the workshop.

State and perspectives of the Lepse project

Mr. Magnus Rystedt, NEFCO, who is chairing the Lepse Steering Committee, and Mr. Fausto Gasperini, European Commission, briefed the meeting on the recent agreements on the Lepse project initiation. They confirmed that the European Commission is ready to fund selection of a suitable solution for unloading the ship and her further dismantlement. In several weeks Russian company Aspect-Conversion will be contracted by EC to develop necessary technical documentation for this work. Within 18 months the following phases will be developed:

- Feasibility study to select the best option;
- Development of the selected option, getting necessary approvals;
- Preparation of the documentation for tendering the industrial project.

All documentation including Environmental Impact Assessment will be developed according to the current Russian legislation and it should satisfy Western donors and Russian authorities. Results of the work of SGN, France, (expected by mid October) will be taken into account. International peer review will be conducted in parallel with the project development in order to ensure conformity to Western standards.

Russian side expressed its satisfaction with the resent developments on the Lepse project, which was on hold for several years. Rosatom will support activities of the Russian integrated organisation Aspect-Conversion, which leads the project. The Beneficiary for this project of behalf of the Russian Government is the Russian Federal Agency for Maritime and River Transport.

Lessons learned from cooperative projects

The following presentations were given under this agenda item:

1. Update on Canada's GP Activities 2004/5 and future intentions 2005/6 *by Mr. Michael Washer, DFAIT, Canada.*
2. Cooperation of DFAIT of Canada and FSUE "EE "Zvezdochka" within the frames of Global Partnership Program: yesterday, today and tomorrow *by Mr. Eduard Baal, Zvezdochka shipyard, Russia.*
3. German-Russian project on safe storage of NPS reactor compartments in Sayda Bay *by Mr. Gunter Bäuerle, Federal Ministry of Economics and Labour, Germany.*
4. Experience in implementation of international project: Refurbishment of Building 5 to be Used as a Dry Storage Facility for Spent Nuclear Fuel at FGUP Atomflot *by Mr. Roman Penzin, Aspect-Conversion, Russia.*
5. State of projects sponsored by Sweden *by Mr. Birger Karlsson, MOFA, Sweden.*
6. State of NDEP-Nuclear Window activities *by Mr. Olivier Pillard, EBRD.*

In the presentations and discussion that followed the following aspects were identified as crucial for successful implementation of projects:

1. Close cooperation with Rosatom.
2. Selection of qualified firms and partners that licensed for designated activities.
3. Conducting activities according to Russian Regulations and Standards.
4. Direct contracting with the Russian organisations.
5. Detailed description of the scope of the project. Dividing the project on clearly defined phases suitable for contracting separately (when the project is large).
6. Clear structuring of the milestones. Effective control over the milestones and deliverables. Quick payment on acceptance the work.
7. Regular visits of the donor's representatives to the sites to monitor and accept the work. Advance planning of the visits.
8. Independent assessments (when necessary, e.g. Environmental Impact and Risk Assessments).
9. High priority of radiation safety and engineering safety issues during implementation of projects.
10. Involvement of (interaction with) Russian Regulators at the early stage of the project, when possible.
11. Sharing information and documentation with other donors, which saves a lot of time and efforts and provides for best value for the donors money.
12. Using the CEG forum for open exchange of information, lessons learned, coordination of cooperation with Russia in order to avoid duplication and overlaps, eliminate gaps and ensure effective integration of the Western aid in the Russian Nuclear Legacy Programmes.

Participants of the CEG meeting highlighted the need for improvement of procedures on exemption from taxes and custom charges and getting permissions for access to the sites.

The CEG organisational and financial matters

The CEG Executive Secretary presented proposals for modification of the CEG Terms of Reference that have been submitted by the CEG parties. Several changes have been discussed and agreed by the CEG meeting. The new version of the CEG TOR will be distributed by the CEG Executive Secretary shortly after the meeting.

The CEG Secretariat reports were received with interest. The CEG approved Financial Report of the CEG Secretariat for 2004 and decided to increase contributions of the CEG member-countries to the CEG Secretariat budget for 2006 up to 12,000.00 USD.

The CEG Executive Secretary presented current version of the web-based database on cooperative projects in the CEG-related areas. He expressed the need for more active cooperation between the CEG parties and the CEG Secretariat on the CEG database maintenance and regular updating. In general CEG membership supports further maintenance of the database and will provide suitable links to available websites with the projects related information.

CEG decided that the database website will be available to the public (except financial data and the attached documents and reports which remain password-protected) from 1 December 2005, and by this date the CEG members will review the database and inform the CEG Secretariat in case of any concerns regarding disclosing the information. It was emphasised that it was the responsibility of the organisation supplying information to the CEG Secretariat to ensure there were no confidential or sensitive information provided for the database.

CEG appreciated and agreed with the proposal of Germany to host the next 20th CEG plenary meeting, which will be held during last week of September 2006 in Munich.

CEG supported proposal of Finland to organise and host the CEG workshop on Isolation and Disposal of Radioactive Waste that will be held on 14-16 June 2006 in Olkiluoto, Finland. The objectives of the workshop will be to review the modern techniques and approaches for waste conditioning and preparation for the long-term storage and disposal, and to discuss different options and facilities for the RW disposal.

CEG appreciated proposal of Sweden to organise and host the workshop on Strategic Aspects of Radioactive Waste Management. Russian side proposed to discuss also general aspects of remediation of nuclear hazardous sites. It was agreed that the topic of the workshop would be defined at a later stage through communication between the parties involved.

CEG decided that the CEG Secretariat would provide assistance to organisation of the workshops in a way similar to the previous CEG workshops.

CEG recognised with gratitude the decision of the IAEA Director General to continue the IAEA support of the CEG activities in 2006-2007.

CEG thanked the CEG Secretariat and the Foreign Affairs Canada for excellent arrangements for the 19th CEG meeting.