

RECORD OF MEETING
IAEA/CEG WORKSHOP ON SPENT NUCLEAR FUEL AND RADIOACTIVE
WASTE MANAGEMENT AT ANDREEVA BAY

October 23-25, 2001
Idaho Falls, Idaho, USA

The United States Department of Energy assisted by the US Departments of Defense and State hosted an IAEA CEG Workshop on Spent Nuclear Fuel (SNF) and Radioactive Waste Management at Andreeva Bay, Russia. The workshop included representatives from the Russian Federation (RF) and seven other countries who gathered to consider international assistance to reduce safety risks and environmental contamination from SNF and radioactive wastes now stored at this facility.

The workshop was organized under the aegis of the International Atomic Energy Agency Contact Expert Group at the initiative of its two Co-Chairmen, Mr. Randal Scott, Head of the US Delegation to the IAEA CEG and Ambassador Torbjorn Norendal, Chairman of the IAEA CEG. The workshop was conducted with the full and active cooperation of the Russian Federation Ministry of Atomic Energy (MINATOM) whose delegation was led by Mr. Victor Kovalenko. The RF delegation also included representatives from the RF Ministry of Defence and the Murmansk Regional Administration.

The meeting was held at the Department of Energy's Idaho National Engineering and Environmental Laboratory that is involved in the management of U.S. SNF and radioactive wastes.

The key Workshop objectives included:

- Evaluate security, safety and environmental control issues associated with SNF and radioactive wastes at Andreeva Bay.
- Explore alternative technical solutions.
- Determine priorities
- Catalyze donor actions to support high priority needs.

These objectives were met.

At this meeting the RF delegation described the conditions, priorities and response options available for the remediation and rehabilitation of the Andreeva Bay site. This information was contained in six reports presented by the Russian delegation.

1. V.N. Kovalenko, Current Situation at the Andreeva Bay Coastal Technical Base.
2. A. Ruzankin, Importance of Rehabilitation of Andreeva Bay Objects for Murmansk Region.
3. S.G. Testov, State Supervision of Nuclear and Radiation Safety in Andreeva Bay.
4. A.P. Vasiliev, Basic Approaches to Radioactive Waste Management at the Andreeva Bay Coastal Technical Base, Kola Peninsula, Russia.
5. A.V. Grigoryev, Infrastructure Needed for Spent Nuclear Fuel and Radioactive Waste Management at the Andreeva Bay Coastal Technical Base.

6. V.G. Aden, S.U. Bulkin, V.K. Bulygin, V.K. Vazinger, U.A. Ivanov, and N.G. Sandler, Facilities and Equipment for Spent Nuclear Fuel Management at the Andreeva Bay Coastal Technical Base, Kola Peninsula.

The RF delegation identified the following overarching priorities relative to remediation of this site. They are:

- Reestablishment and enhancement of infrastructure
- SNF management
- Solid and liquid radioactive waste management
- Building and structure remediation
- Territory rehabilitation

The country delegates gave their support for the development of feasibility studies. Delegates agreed that it may be possible to implement urgent activities which are not related to development of feasibility studies. The feasibility studies would form collectively a comprehensive strategy for Andreeva Bay. This strategy would identify a portfolio of projects/costs to address the above priorities. Funding from donor countries for projects would depend on the resolution of several key issues including: Exemption from nuclear liability, taxes and duties, site access, full transparency of costing and expenditures, consistency with a comprehensive strategy, and participation of foreign experts. These issues could be resolved through and provided for either by bilateral or multilateral agreements. This would depend on the positions of individual donor countries.

Following the RF presentations, four breakout sessions were held. The major conclusions from the breakout sessions and the discussions thereafter are as follows.

Infrastructure Development

Positive interest was expressed by the country representatives present to proceed with specific technical assessments. The following priority activities were identified:

- Administrative Building
- Physical protection system
- Reconstruction of the water pipeline
- Establishment of new radiation access points
- Construction of the staff changing room
- Construction of the radiation and environmental monitoring lab
- Repair of road

The following list of priority equipment was also identified:

- Phones and radio communication equipment and service
- Delivery of the 80-tonne pier crane
- Personnel dosimeters
- Equipment for radiation chemical laboratory and radiation biological laboratory
- Site vehicles and equipment for winter conditions

Radioactive Waste Management

Positive interest was expressed by the country representatives present to proceed with specific technical assessments. The following priority projects and needed equipment were identified:

- Feasibility studies on projects for the management of solid and liquid radioactive waste and remediation of contaminated buildings and structures are urgently needed.
- Upgrade of Building 67 for solid radioactive waste storage, preparation of Building 6 for installation of solid radioactive waste compactor, and remediation of Building 5 are high priority projects
- Equipment needed:
 - Core sampling equipment
 - Portable gamma- and beta spectrometers
 - Robots for remote sampling and visual inspection
 - Mobile decontamination unit
 - HEPA vacuum cleaners
 - Radiological and environmental monitoring system
 - Cutting and shearing equipment
 - Remote control equipment for hosting casks on the SRW storage pad
 - Mechanical press for compacting contaminated scrap metal and materials.

SNF Management

The ultimate goal is to remove the SNF present in storage at Andreeva Bay to Mayak. Development of a feasibility study for long-term SNF management is a high priority project. The Russian side will present a list of urgent activities and equipment at the 13th CEG Meeting on 6-8 November 2001.

Initial funding is needed to develop a feasibility study and for urgent infrastructure actions and equipment. To help carry this out, representatives from the United Kingdom volunteered to assist the Russian Federation in the development of a proposal for the SNF feasibility study and urgent infrastructure actions. Examples of urgent needs include, but are not limited to:

- Construction of roofing above the dry storage unit
- Removal of water from the storage cells with canisters
- Supply of climate control equipment inside the dry storage units
- Supply of remote control equipment for handling high-radioactivity components
- Supply and installation of TV monitoring systems for remote handling of SNF
- Provision of physical protection
- Radiation monitoring

Regulatory and Licensing Issues

- Licensing of the SevRAO enterprise in relation to management of radioactive materials will be performed by Minatom of Russia, with the participation of the Department of State Supervision on Nuclear and Radiation Safety (DSS NRS).
- Activities of SevRAO in the area of nuclear and radiation safety are performed in accordance with Federal regulations and standards introduced by the Ministry of Health and Gosatomnadzor.
- State supervision on nuclear and radiation safety at the site is conducted by the Ministry of Defense, DSS NRS.
- State supervision on other specific issues is conducted by the Ministry of Health, State Committee on Technical Safety Supervision (Gosgortekhnadzor), and Ministry of Internal Affairs.
- SevRAO will handle license applications, but foreign companies directly participating in the work will have to apply for licenses independently.
- Licensing is not required for conducting reviews of Russian studies by foreign experts.

Foreign Participation

Foreign participation is welcomed in all stages of the projects. This will consist of providing technical solutions and documentation, supplying equipment, technical review of studies, and financing, but not operational work.

Planning Issues

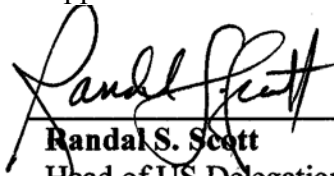
- Results of feasibility studies on different issues will be included in the general plan of activities which focus on SNF and RW management, remediation of contaminated buildings and territory, and general clean-up of the site.
- Financing needed for implementation of the general plan cannot be identified prior to the completion of feasibility studies on different issues.
- In parallel to development of the feasibility studies, urgent measures on creation of the minimal infrastructure are needed for initiation of major remediation activities.
- At the 13th CEG meeting, the Russian side will present cost estimates for production of feasibility studies on each issue, conduction of first priority works, and equipment supply.

Summary

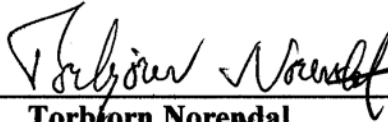
The delegates offer the following observations to the overall membership of the CEG and will present these recommendations at the IAEA CEG meeting in Oskarshamn, Sweden, 6-8 November 2001.

1. The RF delegation has provided detailed information on the conditions, priorities, strategies and needs to better manage SNF and radioactive wastes at Andreeva Bay.
2. The breakout sessions identified many priority programs and projects. Some require further detailed study through the development of detailed feasibility studies before funding decisions can be made. Some projects are urgently needed and do not require further evaluation before they are begun.
3. The delegates recognize that there are urgent needs at Andreeva Bay as identified at this workshop and encourage the Donor Countries to begin work to address them as quickly as possible and the Russian party to resolve institutional conflicts that hinder the supply of Donor assistance.

The delegates recognized the Russian delegation for their efforts and expressed much appreciation for the level of detail contained in the briefings they presented.



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