

**RECORD OF DISCUSSION  
MEETING OF EXPERTS  
AMEC PROJECT 1.5 AND 1.5-1  
NOVEMBER 8-17, 1999  
UPTON, NY/WASHINGTON, D.C.**

**INTRODUCTION**

Technical experts of the Ministries of Defence (MOD) of Norway (NOR) and Russia (RF) and the US Departments of Energy (DOE) and Defense (DOD) met in the U.S. under AMEC Project 1.5 "Cooperation on Radiation and Environmental Safety." To efficiently use time, the experts also assessed the status of AMEC Project 1.5-1 Site Radiation Monitoring: Application of the Picasso System.

**MEETING GOAL**

1. To train Norwegian and Russian specialists in the operation, technical maintenance and repair of equipment scheduled to be transferred to the Russian side according to a list approved by AMEC Principals.
2. Conduct a discussion with persons in the US DOE making decisions on funding AMEC and other Russian-Norwegian-American programs.
3. Clarify the mechanism for transferring equipment to the Russian side.
4. Determine project paths of development.

**ACCOMPLISHED**

1. Specialists of the Idaho National Engineering and Environmental Laboratory (INEEL) conducted a training course for Russian and Norwegian specialists on operating, maintaining, calibrating and repairing DD-100/200 dosimeters and DR-200 readers, and support software.
2. Experts of the RF and NOR MODs were acquainted in detail with the technical characteristics and operation of the ERM-2 environmental radiation monitor NRC and the CAM -100P & (Y1) Continuous Air Monitor.
3. The technical experts took part in the discussion at the US DOE on the state and prospects of AMEC Projects.
4. The technical experts visited the Naval Dosimetry Center, Bethesda, Maryland.
5. The state, prospects and implementation pathways of AMEC Project 1.5 were discussed in their entirety.

**THE EXPERTS NOTED**

1. The US DOE/DOD have received the necessary licenses and are now ready to transfer and transport the self-reading dosimeters and support hardware/software to Russia; BNL is prepared to transfer to the Russian side 10 DR-200 readers, 100 DD-100 dosimeters, and 50 DD-200 dosimeters no later than December 31, 1999.
2. Dosimeters are to be transferred after INEEL takes the following steps:
  - ❖ Resolve Y2K in the software and dosimeter hardware;
  - ❖ Provide a set of operational documentation;
  - ❖ Provide transferred equipment with a set of spare parts and accessories intended to last until 2003;
  - ❖ Assembly of a set of PC-managed readers with licensed MS-DOS operating system;
  - ❖ Provide the Russian side with adapters, standard batteries for dosimeters and readers for use up to December 31, 2003.
3. The transfer of dosimeters shall be implemented on the basis of a contract concluded between contractors of the US DOD (Brookhaven National Laboratory) and the Russian MOD (ICC Nuclide) under Project 1.5. An addendum to the contract shall regulate the resolution of technical and legal issues arising as a result of the transfer. This transfer shall take place in a tax- and duty-free manner.
4. In as much as the CAM -100P & (Y1) Continuous Air Monitor and the Eberline ERM-2 Environmental Radiation Monitor cannot be operated in sub-zero temperatures, these technical characteristics render them unusable at northern Russian naval sites and for this reasons they will not be transferred to the Russian Navy within the framework of AMEC Project 1.5.

5. BNL will clarify if INEEL has in its inventory the MSPS-40Ge portable Spectrometer and the NMC Double Decade Spectrometer (model DS-33) with double decade counter, and also the NMC printer (model DS-33p), together with transformer, with the goal of transferring them to the Russian Navy out of funds freed up as a result of the inappropriateness of equipment indicated in Point 4.
6. The American side will study the possibility of purchasing Russian-manufactured equipment from the approved list indicated in Point 5 of the Record of Meeting. The Russian side will provide the rationale.
7. To clarify software peculiarities and functioning of the Picasso System and together with the detection system, the project officers will hold a Technical Experts' meeting of Russian, US and Norwegian specialists in January-February 2000. Russian experts will present documentation to US and Norwegian technical experts two weeks before the beginning of the meeting at which strategic questions of radiation monitoring and of the Picasso System at a Russian Naval base will be examined. The documentation will indicate the following:
  - ❖ The Russian Naval site where Picasso will be used;
  - ❖ Physical parameters to be monitored;
  - ❖ Detectors and other equipment to be used;
  - ❖ Enhancement of the efficiency of radio-environmental monitoring.

**THE EXPERTS RECOMMEND TO THE STEERING GROUP THAT**

1. AMEC Project 1.5 should be viewed as a broad program.
2. The transfer of Russian-manufactured equipment, from the list, should proceed within the framework of other AMEC projects.
3. The Norwegian side should consider purchasing Russian-manufactured equipment, as indicated in Points 3, 5, 6, 7, and 8, from the list within the framework of Project 1.5-1 within the limits of funding made available by the Norwegian MOD.
4. Consider a concept-level proposal to create «A Mobile Platform for Comprehensive Monitoring of the Environment Using Field Deployable Radiological and Chemical Measurement Equipment.»

For Russian Ministry of Defence

For Norwegian Ministry of Defence

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Col. Alexander Belikov

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Monica Endregard

For U.S. Department of Energy/US Department of Defense

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Paul D. Moskowitz

**RUSSIAN AND NORWEGIAN DELEGATES  
NOVEMBER 8-18, 1999**

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**US Dept of Energy Meeting, 15.11.1999**

Peter Ritzcovan – DOE PO	Ann Heinrich – DOE NN
Randy Scott – DOE EM	Charles Newstead – State
Gary Titemore – DOE NN	Randy Pearson – State
Jeff Williams – DOE RW	Carolyn Huntoon – Deputy Assistant Secretary for Environmental Management

**US Naval Dosimetry Center, 16.11.1999**

Karl Mendenhall (CAPT)	James Cassata (LT)
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