

**MEMCON:** MC&A/PHYSICAL PROTECTION SUBGROUP

**DATE:** September 1, 1992

**PLACE:** The Ukrainian State Committee on Nuclear Radiation Safety (GAN)

**TIME:** 10:00 a.m. - 12:15 p.m.  
2:00 p.m. - 4:00 p.m.

**PARTICIPANTS:**

U.S. SIDE

T. Sherr, NRC  
P. Ting, NRC  
K. Sanders, DOE  
R. Cherry, DOE  
S. Schachowskoj, Interpreter

UKRAINIAN SIDE

N. Shteynberg, GAN  
A. Shcherba, MFA  
A. Glukhov, GAN  
A. Tchernychov, GAN  
V. Schevchenko, GAN

SUMMARY

The U.S. MC&A and physical protection delegation met with officials from the State Committee of Ukraine on Nuclear and Radiation Safety (GAN) on September 1-3, 1992. The delegations discussed the U.S. paper on Possible Cooperative Activities that would satisfy the Ukrainians statement of requirements transmitted on July 24, 1992, by N. Shteynberg, GAN Chairman. A summary Statement was jointly prepared by U.S. and Ukrainian sides (text of statement is Attachment I to this memcon).

After a warm welcome for the U.S. delegation, Dr. Shteynberg made a brief statement. The following is a summary.

- o GAN has problems with the availability of human resources, work space and equipment;
- o There is a lack of understanding within the Ukrainian government in the area of nonproliferation; in terms of what actions or tasks of safeguards should be taken to meet the nonproliferation treat requirements; what safeguards problems they are faced with; and how to start establishing such a safeguards system;
- o There is a lack of understanding with the export and import control issue;
- o In general, there is a lack of understanding of the political significance of the above problems;
- o Ukraine (GAN) is extremely interested in cooperating with the U.S.;
- o Ukraine (GAN) is interested in installing a national MC&A and Physical Protection System as soon as possible, and U.S. support is essential;

- o It is important to establish the number of staff required to set up an MC&A and Physical Protection and export control systems, and the need to hire and train personnel was emphasized. He also stated that it would be important to determine which legal documents should be prepared and in what sequence;
- o Detailed discussions of the document, "Possible Activities For Cooperation" should be thorough and specific.

Before concluding his remarks, Shteynberg posed two questions:

1. What is the human resource requirement for setting up and operating the MC&A and Physical Protection System? For example, will GAN need four professional staffers or 24? What resources specifically are required to fulfill the needs?
2. What kind of legal document will be required? The timing for this document is important because all the regulatory work has to be conducted in terms of the law. (Note: Dr. Shteynberg was referring to the Ukrainian Atomic Energy legislation.)

Dr. Shteynberg added that during this meeting, Mr. Glukhov will add a section to the proposed paper (the action plan) to address the legislation issue on transportation and export/import control. He said that the draft Ukrainian Atomic Energy legislation was transmitted to the NRC for review one and one-half months ago. He did not know the status of the U.S. comments. (Note: P. Ting provided some information on the NRC's action plan related to the review of the Ukrainian legislation.)

Mr. Sherr thanked Dr. Shteynberg for his opening remarks and the opportunity for coming to Kiev to meet with the Ukraine delegation to discuss their request for assistance in the area of MC&A and Physical Protection. The U.S. side's remarks and response to Shteynberg's questions are summarized below.

- o Sherr thanked Dr. Shteynberg for his timely request of July 24, 1992;
- o The U.S. side has prepared a paper (in Russian and English), describing specific activities in response to the 7/24/92 Ukrainian request. The paper was provided to Mr. Glukhov on August 31, 1992;
- o This paper is not an agreement; however, if the proposed possible activities are considered reasonable, the paper will facilitate the process leading to a formal bilateral agreement;
- o The U.S. considers export and import control and nonproliferation as priority areas. The U.S. will assist Ukraine with what is needed to help Ukraine achieve the objective of meeting international standards;
- o Also, as part of the MC&A and physical protection cooperative effort, the nuclear material tracking and reporting system will not only be established for the overall MC&A system, but also will benefit the export and import control program and implementation of the nonproliferation treaty (NPT); and

- o In Shteynberg's July 24 letter, it was stated that the Ukrainian needs in the physical protection area would be identified in November, 1992. The U.S. will respond to their physical protection needs when they are identified.

In reference to Shteynberg's earlier discussions with General Burns regarding MC&A and physical protection, and the subsequent discussions on the subject between Ukrainian representatives and representatives of the U.S., the first U.S. assistance to Ukraine will be in the form of technical consultation related to MC&A and physical protection at the national and facility levels. In this context, with regard to the question on the requirement of human resources, the U.S. delegation will eventually be able to provide a relatively precise estimate. The U.S. expected to be able to provide a preliminary estimate by the end of the week.

Dr. Sanders also made a comment regarding Dr. Shteynberg's question on the export and import issue. While not directly involved in export and import matters, he understood that the issue was being addressed by a separate U.S. group. Sanders asked Dr. Shteynberg to what extent the Ukrainian government is working with that bilateral group. Dr. Shteynberg responded that he did not know of such a group, and as far as he knew, nobody has addressed the export and import control issue properly within his government to date.

Shteynberg went on to address other issues related to the MC&A cooperation and thanked Mr. Sherr for his remarks and the responses to his questions. He added that the MC&A issue is the most difficult issue in terms of the requirements for human resources and equipment. He said that both sides should go ahead with the proposal activities.

Dr. Shteynberg also made the following comments concerning the sequence of the proposed program implementation:

- o The activities should be started at the level of the regulatory body, i.e., the national level system, and with one facility (a nuclear power station);
- o Develop the interrelationship between national level, facility level, and information systems on this basis;
- o Then, work with two more facilities: one research reactor and one uranium production facility;
- o The interaction between GAN and the facilities will facilitate the work of developing the "total" MC&A system;
- o Dr. Shteynberg believes this sequence of activities is reasonable; he said that he understands that the U.S. resources also are limited and the U.S. has its own needs. Ukraine will spend its own resources from some point on, and
- o He welcomed U.S. inspections of their systems to "assure correctness." (He added that this is their manner of operation.)

The U.S. side continued their remarks:

- o The Shteynberg proposed sequence of activities is consistent with the U.S. anticipated program;
- o The Ukrainian government should have received two draft agreements for comment: the framing agreement (umbrella agreement) and the implementing agreement pertaining to MC&A and Physical Protection. The framing agreement must be concluded before the implementing agreement, and the implementing agreement must be concluded before the cooperation program can be implemented;
- o Regarding the Ukrainian executive agents, under the agreements, Shteynberg was asked if GAN would serve in this role. Shteynberg responded by saying that it was difficult for him to answer the question at the present time. He added that the "framing agreement" may be signed by MFA, and the implementing agreement may be signed by GAN. They would discuss this matter among themselves. Following Dr. Shteynberg's comment, Mr. Shcherba of MFA elaborated more about the Ukrainian interagency's coordination in this matter. His comments were generally in agreement with Shteynberg that, while the framing agreement may be signed by MFA, GAN may sign the implementing agreement; and
- o The Ukraine visit to the U.S. and the previous meetings established good working relations--which are most important. The U.S. delegation is looking forward to working with the Ukrainians on this effort.

Dr. Shteynberg left the meeting at this point.

OTHER MATTERS DISCUSSED WERE AS FOLLOWS:

1. Ukraine Department of Defense is taking the view that the "framing agreement" is for the destruction of the missile delivery system. Glukhov commented that maybe there should be separate agreements, one dealing with MC&A/Physical Protection and one dealing with the destruction of the delivery system. (Note: Sherr restated that the U.S. delegation has no authority here to discuss any agreements.)
2. Sanders commented that the DOE will be the executive agency to implement the MC&A and physical protection agreement, and DOE and NRC will work very closely to implement the cooperative plan.
3. In Dr. Shteynberg's July 24 letter, it was proposed that a joint technical working group be established for facilitating the planning and implementation of the Ukraine - U.S. cooperative plan. Glukhov was designed as the Ukrainian representative in the working group. Sherr indicated that Sherr (NRC) and Sanders (DOE) will probably be the U.S. representatives in the group.
4. Sherr stated that as work proceeds, the action plan may be revised during the course of implementation.
5. Sherr emphasized that the speed at which work progresses in the cooperative effort will depend upon the Ukrainian resources available.

6. Sanders provided copies of President Bush's 7/13/92 statement on the nonproliferation initiative and called attention to the objective for cooperation with the former Soviet Union concerning the accounting of nuclear material.
7. DOE provided copies of view-graphs used at Los Alamos National Laboratory during the Ukraine visit in July.
8. Sherr reiterated the need to discuss the paper on possible activities which should facilitate discussions on the implementing agreement prior to General Burns' planned trip during the week of September 28. (Note: the trip is now scheduled for the end of October).

The afternoon meeting was focused on discussions of the paper on "possible activity". The Ukrainian delegation has no problem with the three leading sections in the draft: objective, scope, and strategy.

The issue of export and import control and transportation was brought up again by Mr. Tchernychov, Glukhov's deputy. Tchernychov questioned whether export and import and transportation should be included in the action plan.

Sanders stated that in addressing these areas, IAEA guidelines from IAEA (INFCIRC/225), includes Physical Protection for transportation. Sanders asked who handles export and import control in Ukraine at the present time. Glukhov answered that no one handles this. Glukhov added that the reason for them to repeat this question is that GAN will have the responsibility for export and import control. He said that there is a brief section dealing with the issue in the draft legislation. Sherr responded that we would anticipate that NRC's review of the draft legislation will include review of this section. Sherr added that licensing for export and import is broader than safeguards considerations (MC&A and Physical Protection).

Concerning transportation, Glukhov questioned whether safeguards for transportation should be included when Ukraine presents to the U.S. their request for assistance in the area of physical protection. He emphasized the importance of transportation because Ukraine will soon transport spent fuel to Russia. They need legislation to cover transportation. Sherr observed that Ukraine's request regarding physical protection could include transportation. He asked whether the safety aspects of transportation were included in the request of the July meeting at NRC. Glukhov said it was covered in general terms.

Discussions were directed to the timing (schedules) of the action plan. Glukhov reminded the U.S. delegation that Ukraine will have 18 months to implement IAEA safeguards after a nonproliferation treaty is signed. Ting briefly went through the schedule for the major activities in the paper, stating that although the entire set of activities will take up to five years, the bulk of the system, including regulations, licensing and inspection programs, the material tracking and reporting system, as well as the model systems will be completed within 18 months from the date of signing a formal agreement. Sherr added that a more basic system can initially be employed to satisfy IAEA's request, and refinement of the system can take place over the longer term.

Regarding physical protection, Glukhov suggested that shortly before General Burns arrival in Kiev on September 28 to sign the agreement, a joint U.S. - Ukraine team could visit a typical site to collect the information needed and then to prepare the request for assistance in the area of physical protection. All this can be accomplished before the arrival of General Burns. Sherr said there is no need for this approach because the proposed implementing agreement has a provision for adding physical protection later (Section VIII of the Annex). He added that the U.S. delegation would investigate the mechanism for adding the physical protection requirements to the Annex upon its return to the U.S.

Sherr brought up a concern about a potential problem with language. He said that several activities will involve rotational assignment of Ukraine personnel to the U.S. The language barrier would slow down the progress. Glukhov responded that he has been looking for people with English speaking ability; and that this shouldn't be a big problem.

Afterwards, discussions were focused on the paper on "possible activities". The Ukrainian delegation has no significant problems or comments for the first few activities described in the plan. Some clarifications and discussions were required for certain wording of the sections covered during the meeting.

The meeting was adjourned at 4:00 p.m. with the understanding that discussions on the action plan would continue the following day.