

**State Committee on  
Nuclear and Radiation Safety  
of Ukraine**

3 Verkhovnoj Rady bvd.  
Kiev Ukraine 253100  
TEL: (044) 559-6962  
FAX: (044) 559-5344

JUL 24 1992

Major General William Burns  
U.S. Department of State  
S/NST  
Room 2422  
Washington, DC 20520

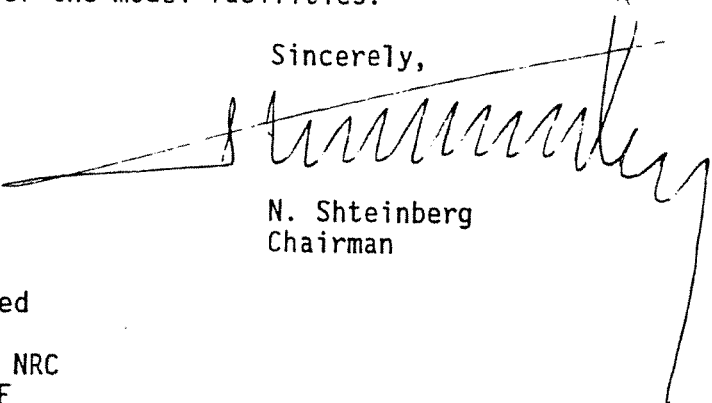
Dear General Burns:

At the meeting with the Ukrainian delegation on July 10, 1992, you requested that the Ukraine provide a statement of requirements by July 31, 1992. In response to this request, enclosed is a statement of Ukraine requirements for support in the areas of material control and accounting and physical protection. This statement of requirements has been developed in coordination with officials from the U. S. Department of Energy and the U. S. Nuclear Regulatory Commission.

As noted in these requirements, we suggest that a working group be established to facilitate the planning and execution of the requested program. If this approach is acceptable, I will assign to this group Mr. Andrei Glukhov, Head of the Safeguards Division, State Committee on Nuclear and Radiation Safety of Ukraine.

We hope that these requirements are acceptable and that the requested support can commence immediately upon conclusion of the agreement. In this regard, we would recommend the working group meet immediately following the conclusion of the agreement to work out a detailed schedule of activities and to visit prospective sites for the model facilities.

Sincerely,

  
N. Shteinberg  
Chairman

Enclosure: As stated

cc: R. F. Burnett, NRC  
K. Sanders, DOE

**REQUIREMENTS FOR U.S.-UKRAINE COOPERATION  
TO ESTABLISH NATIONAL SYSTEMS OF MATERIAL CONTROL  
AND ACCOUNTING AND PHYSICAL PROTECTION IN UKRAINE**

1. OVERVIEW

This document describes requirements for a program of cooperation between the United States and Ukraine to develop and implement national systems of material control and accounting (MC&A) and physical protection in Ukraine. According to the Lisbon Initiatives, the Government of Ukraine intends to accede in the fall of 1992 to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as a non-nuclear weapons state. As a party to the NPT, Ukraine will seek to conclude a safeguards agreement with the International Atomic Energy Agency (IAEA). Further, Ukraine intends to join the Nuclear Suppliers Group (NSG) and recognizes that safeguards are required under international export control guidelines. U.S. technical assistance under the proposed program will support Ukrainian efforts to implement effective domestic safeguards as well as to fulfill NPT, IAEA, and NSG obligations.

The program of cooperation will be implemented under an intergovernmental agreement between the United States and Ukraine. The program should provide for U.S. technical assistance in the assessment of needs, and the planning and implementation of specific projects to address those needs. The activities described in this document are proposed to address Ukrainian nuclear safeguards requirements at both the national and facility levels. Further activities may be identified and undertaken based on the ongoing assessment of needs. For the purpose of planning and execution, a U.S.-Ukraine working group will be established upon conclusion of the intergovernmental agreement and initiation of the program.

Consistent with Ukrainian priorities, U.S. technical assistance will initially focus on MC&A requirements of the Ukrainian national authority and specific facilities. Ukraine will provide by the end of calendar year 1992 specific information for U.S. assistance to address physical protection requirements.

2. SCOPE

The U.S.-Ukraine program of cooperation is expected to address requirements at both the facility and national levels for expert consulting, training and equipment, in support of Ukrainian domestic and IAEA safeguards objectives. U.S. assistance at the national level is anticipated to address development of regulations and an

12/28

inspection program, development of safeguards organizations and staffing, and technical support functions.

Facility-level activities are anticipated to include U.S. assistance in establishing a pilot safeguards program at each Ukrainian facility type to serve as a model for other sites, and in extending safeguards to the other Ukrainian sites. The facilities to be addressed currently include 15 nuclear power reactor units, two research reactors, and one nuclear research and development institute. The Ukrainian national authority is in the process of establishing the total nuclear material inventory in Ukraine and may identify additional facilities based its findings.

It is anticipated that the U.S. technical experts will consult at both the national and facility levels. Training of facility personnel and staff of the Ukrainian national authority may include both classroom activities and temporary assignments of U.S. and Ukrainian personnel. Appropriate equipment (such as computers) will be provided to address Ukrainian requirements for information tracking and reporting at both the national and facility levels. Measurement instrumentation will be provided, as appropriate, to support nuclear material measurements by the national authority and individual facilities.

### 3. REQUESTED AREAS OF COOPERATION

#### A. National level MC&A system in support of domestic and international safeguards

- (1) assist in developing text for Ukrainian authorizing legislation to support MC&A requirements;
- (2) assist in defining organizational structure and MC&A regulatory process;
- (3) assist in developing regulatory documents (regulations, guides, technical reports, and inspection procedures);
- (4) assist in developing a technical support program for regulatory functions (to include measurement methods, equipment, procedures and calibration standards);
- (5) provide associated training and assist in implementation of technical support functions, including installation and implementation of measurement instrumentation;

13/2/8

- (6) assist in developing and implementing a national inspection program;
- (7) provide training for regulatory personnel (licensing staff and inspectors);
- (8) assist in developing a material tracking and reporting system, to include:
  - identifying information system requirements (required system capabilities),
  - developing and implementing procedures for computer center operations, and providing associated training for national system personnel, and
  - developing reporting instructions and training programs for operator personnel, and
- (9) provide computer equipment and software and associated training in support of the national information system and related MC&A elements.

B. MC&A system for facilities in support of domestic and IAEA safeguards requirements

U.S. assistance will focus initially on the development and implementation of model safeguards systems at selected sites. The United States will assist first in enhancing current manual MC&A systems at the facilities and, subsequently, in establishing automated MC&A systems. U.S. activities are anticipated to include:

- (1) assist in identifying improvements for existing elements of MC&A systems;
- (2) define specifications for needed improvements;
- (3) for identified improvements develop, as necessary, and provide procedures, instrumentation for nuclear material measurements (if needed), and systems for records and reporting for model facilities;
- (4) provide computer equipment (hardware and software) and associated training for MC&A systems;
- (5) assist in installation and train operating personnel at model facilities in use of equipment and procedures;

- (6) assist in transferring improvements to other facilities, based on implementation at the model facilities.

C. Physical protection

There is strong Ukrainian interest in U.S. assistance in the area of physical protection. However, Ukrainian national resources do not permit identification of needs at this time. It is requested, however, that the U.S.-Ukraine program provide for cooperation in this area. Ukrainian needs will be identified in November 1992.