

April 1, 1998

FOR: The Commissioners

FROM: Carlton R. Stoiber, Director /s/
Office of International Programs

SUBJECT: PROPOSED SECTION 123 AGREEMENT FOR PEACEFUL NUCLEAR COOPERATION WITH UKRAINE

PURPOSE:

To advise the Commission of the staff's review of the above agreement and recommend Commission concurrence.

BACKGROUND:

Over the past several years, the U.S. has been pursuing closer nuclear-related cooperation with Ukraine, including development of an Agreement for Peaceful Nuclear Cooperation (Section 123 Agreement). Ukrainian participation (provision of turbines) in Russia's efforts to modify and complete the Bushehr reactors in Iran has been a significant impediment to finalizing such an Agreement.

During the visit of Secretary of State Madeleine Albright to Kiev on March 5 and 6, 1998, the government of Ukraine provided assurances to the U.S. that it would not supply turbines or other reactor equipment for the Bushehr nuclear power project. This significant change in policy has effectively removed this impediment, revitalizing Executive Branch efforts to finalize a Section 123 Agreement with Ukraine.

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Accordingly, the Department of State (DOS) has now forwarded for Commission review and approval the proposed text of such an Agreement, draft Executive Branch analyses, and DOS diplomatic telegrams on Ukraine-U.S. non-proliferation assurances, including commitments made by the Ukrainians regarding nuclear-related cooperation with Iran. As expected, DOS has requested Commission review and concurrence as quickly as possible. Further, DOS representatives provided additional commentary and answered questions in a Commission briefing that was held on March 23, 1998.

DISCUSSION:

Ukraine became an independent state on August 24, 1991, following the dissolution of the Soviet Union. The U.S. officially recognized Ukraine's independence the following year and has continued to attach great importance to its successful transition to a democratic state and a market economy.

A cornerstone of the partnership between the U.S. and Ukraine has been the Freedom for Russia and Emerging Eurasian Democracies and Open Markets (FREEDOM) Support Act. In 1993, a new \$2.45 billion assistance package for the New Independent States was passed by Congress and signed into law by President Clinton. Up to \$700 million in expanded U.S. economic assistance was committed to Ukraine in 1994, half in technical and humanitarian assistance and half in "Nunn-Lugar" funds to assist with nuclear dismantlement, non-proliferation programs, and industrial partnerships, including a \$10 million pledge to assist in the establishment of a Science and Technology Center to provide peaceful employment opportunities to scientists and engineers formerly working on nuclear weapons and their delivery systems. Additional bilateral and multilateral technical and financial support has been provided to Ukraine to address issues arising from the 1986 Chernobyl accident. Such support has included efforts to improve the level of safety at Ukraine's nuclear installations, to train and advise the Ukraine nuclear regulatory authority, to mobilize international credits to finance energy-production projects to facilitate closure of the Chernobyl nuclear power station, and to address concerns surrounding the stability of the Chernobyl sarcophagus. NRC has actively participated in these activities.

Non-Proliferation Commitments

Ukraine has undertaken a succession of steps to conform to international nonproliferation norms and to contribute to global and regional stability. With the break up of the Soviet Union, Ukraine was left with a large nuclear arsenal on its territory. However, Ukraine returned all tactical nuclear weapons to Russia by the end of 1992, and after compensation issues were settled in association with a new protocol to the Strategic Arms Reduction Treaty (START), in the return of the remaining warheads to Russia by June 1996. Ukraine acceded to the Nuclear Non-Proliferation Treaty (NPT) in December 1994 and signed the Comprehensive Test Ban Treaty in 1996.

Ukraine joined the Nuclear Suppliers Group (NSG) in 1996 and has worked to set up a nationwide nuclear export control system, covering nuclear material, nuclear equipment and technology, and nuclear dual use commodities and technology, consistent with the NSG guidelines. The Executive Branch reports that Ukraine has been responsive to information provided by the U.S. about procurement attempts in Ukraine by countries with unsafeguarded nuclear activities. Although Ukraine's export control system is new and its personnel relatively inexperienced, no serious smuggling cases have been reported in Ukraine, and the effectiveness of the system will hopefully improve over time. However, as with most things in Ukraine, the availability of adequate resources is an open question, especially if outside assistance ends.

Ukraine has concluded a full-scope safeguards agreement with the International Atomic Energy Agency (IAEA) and has cooperated in its implementation. No safeguards issues of consequence have been identified by the IAEA although further improvements in their State System of Accounting and Control are needed and expected. The training and advice provided by the U.S. and by the IAEA seems to have been well received by Ukraine, and efforts are being undertaken to implement suggestions. However, availability of adequate resources in Ukraine also continues to be a major obstacle to long-term

improvements.

Iran

Ukraine's plans to assist Iran's nuclear program, including the supply of turbines for Bushehr, have been of great concern to the U.S. and have effectively blocked the possibility of concluding a U.S.-Ukraine peaceful nuclear cooperation agreement. Despite this concern and the negative impact on closer cooperation, Ukrainian authorities have been reluctant to cancel the turbine sale for both political and economic reasons. However, during Secretary of State Albright's recent visit to Kiev, they changed their position, providing assurances that they would not supply Iran's nuclear program (see Confidential State Department telegrams Kiev 2366 and 2367, distributed separately). This change in the Ukrainian position on supply to Iran facilitated the "initialing" of the text of the proposed U.S.-Ukraine Agreement during Secretary Albright's visit.

Cuba

Ukrainian nationals have performed maintenance and other support activities at the Juragua nuclear power reactor project in Cuba. Increased Ukrainian assistance to the Juragua project could trigger Helms-Burton Act sanctions against Ukrainian companies as well as erode Congressional support for U.S.-Ukraine nuclear cooperation.

Although the U.S. does not have concerns about the peaceful intent of the Juragua project or the Cuban nuclear program as a whole, the U.S. continues to oppose the project because it raises safety concerns and is a serious political aggravant to closer U.S.-Cuban relations. Cuba is not an NPT party and has not waived into force the provisions of the Treaty of Tlatelolco (Latin America Nuclear Free Zone Treaty), but has concluded an IAEA safeguards agreement for the Juragua project.

OIP has contacted the Executive Branch concerning possible Ukrainian activities at Juragua and has been advised that no significant activities in support of the project are apparent at this time.

Agreement Specifics

Attachment 1 includes the DOS draft decision memorandum, the draft Department of State/Department of Energy joint memorandum for the President, the draft Presidential determination memorandum, and the draft White House transmittal to the Congress.

Attachment 2 is the DOS' summary of the basic provisions of the Agreement. Attachment 3 is the text of the Agreement itself. Attachment 4 is a draft Memorandum of Law prepared by the DOS. Attachment 5 is a copy of the draft Arms Control and Disarmament Agency (ACDA) Nuclear Proliferation Assessment Statement (NPAS). Attachment 6 is a criterion-by-criterion analysis of the Agreement's compliance with the provisions of Section 123 of the Atomic Energy Act, as amended. All draft documents are reported to be current as of March 18, 1998.

In sum, the proposed 30-year agreement is a model government-to-government Section 123 agreement which provides a comprehensive framework for peaceful nuclear cooperation based on a strong mutual commitment to nuclear nonproliferation; it is essentially identical to the agreements with Brazil, Kazakhstan, and Romania that the Commission has recently reviewed and approved. It permits the transfer of technology, material, equipment (including reactors), and components for nuclear research and nuclear power production. It gives the U.S. prior consent rights for retransfers, enrichment, and reprocessing, as required by U.S. law. It does not permit the transfer of any sensitive nuclear technology, restricted data, sensitive nuclear facilities, or major components thereof. In the event of termination, key conditions and controls continue with respect to material and equipment subject to the agreement.

Key Issues

One key issue in regard to approval is the strength and durability of Ukraine's commitment to refrain from nuclear cooperation with Iran, including cancellation of the sale of turbines for the Bushehr reactor project being completed by Russia. Considerable pressure could mount on

Ukraine's leadership if the economic loss to Ukraine's turbine manufacturer and other suppliers is not made up by new orders. Another is the ability of the Ukrainians to provide resources necessary to effectively implement their non-proliferation-related commitments, including protection of nuclear materials, equipment, and technology that the U.S. may supply in the future.

If Ukraine's policy to refrain from supply to Iran should weaken or be revised, if Ukraine should undertake a supplier role in some other questionable nuclear project (e.g., in Cuba), or if resource constraints should hamper implementation of Ukraine's non-proliferation-related commitments after the Agreement is concluded, the US. could revise, suspend, or restrict cooperation under the Agreement, as appropriate.

Resource Implications

As with other Section 123 Agreements, the obligations of the U.S.-Ukraine Agreement apply equally to both parties. Thus, if Ukraine were to supply nuclear materials or equipment to the U.S., the U.S. must be able to give formal assurances to Ukraine that the imported materials or equipment (including uranium shipped directly or indirectly to the U.S. for enrichment and any special nuclear material produced from such uranium) will be used only for peaceful purposes, will be safeguarded and physically protected, will not be retransferred without prior Ukrainian approval, etc. Yet the infrastructure for tracking imports into the U.S. is incomplete (absent in the case of reactor and fuel cycle equipment). Over the next few years, for example, it is possible that the U.S. may need to modify the DOE/NRC funded Nuclear Materials Management Safeguards System (NMMSS) to help in giving needed assurances. No estimates have been made regarding potential costs to the NRC for modifying the NMMSS or for developing or enhancing similar assurance-related needs.

The Office of International Programs (OIP) notes that implementation of this Agreement could stimulate additional requests from Ukraine for regulatory assistance from NRC, including both nuclear safety and safeguards-related assistance. At present, OIP is not able to estimate or predict the potential resource implications for NRC from assistance requests that may result from concluding this Agreement. However, OIP does expect that no more than a few export license applications will result as an outcome of the Agreement. OIP believes these few can be reviewed and processed without additional staff resources.

In the future, should significant resource implications result from this agreement, the staff will provide specific resource estimates for Commission review prior to undertaking new commitments.

CONCLUSION:

Ukraine has worked to establish and enhance its international non-proliferation credentials and controls over its Soviet-era nuclear inheritance. Its regional confidence-building initiatives demonstrate that Ukraine is committed to the principle of global non-proliferation. Broadening U.S. involvement with Ukraine serves our collective security interests and furthers U.S. non-proliferation and export control policies. However, close monitoring will be necessary of Ukraine's nuclear-related activities to ensure Ukrainian adherence to its non-proliferation commitments and its Agreement undertakings.

COORDINATION:

The Office of General Counsel has no legal objection. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objection, and the Office of the Executive Director for Operations concurs in this paper.

RECOMMENDATION:

OIP recommends that the Commission approve the proposed letter to the President (Attachment 7).

Carlton R. Stoiber, Director
Office of International Programs

- Attachments:**
1. Draft State Department Decision, Presidential Determination, and Congressional Transmittal memoranda
 2. Summary of Basic Provisions
 3. Draft Agreement Text
 4. Draft Memorandum of Law
 5. Draft ACDA NPAS
 6. NRC Staff Criterion-By-Criterion Analysis
 7. Draft Chairman Letter to the President

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SUBJECT: PROPOSED AGREEMENT FOR COOPERATION BETWEEN THE U.S. AND UKRAINE

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