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U.S. Additional Protocol Bulletin

Department of Commerce Bureau of Industry and Security

Overview of the U.S. Additional Protocol

Introduction

The Additional Protocol to the U.S.-International Atomic Energy Agency (IAEA) Safeguards Agreement (U.S. Additional Protocol) is an additional aspect of the IAEA safeguards regime. The safeguards system dates back approximately thirty years, beginning with the Nuclear Non-Proliferation Treaty (NPT) in 1970, expanding to safeguards agreements concluded bilaterally between the IAEA and NPT-States Parties beginning in 1971, and now extending to individual NPT-State Party Additional Protocols. Based upon the Model Additional Protocol created by the IAEA, the U.S. Additional Protocol was signed and agreed to on June 12, 1998; the U.S. Senate provided its advice and consent to ratification on March 31, 2004. Congress adopted implementing legislation on December 18, 2006. On February 5,2008, in order to facilitate implementation of the Additional Protocol. The President issued Executive Order 13458. The United States currently is working towards domestic implementation of the U.S. Additional Protocol.

The Additional Protocol broadens IAEA access beyond the provisions of the Safeguards Agreement, which covers nuclear material and specified equipment, to all aspects of the nuclear fuel cycle, which includes non-nuclear material and equipment and provides the IAEA access to both declared and undeclared locations. In contrast, the Safeguards Agreement only requires access to declared nuclear sites. This additional access is included to provide the IAEA assurance that a state's nuclear material and activities are consistent with its obligations under the NPT. The Bureau of Industry and Security (BIS) of the United States Department of Commerce will have a key role in implementing the U.S. Additional Protocol at commercial locations in the United States.

Origin of the Additional Protocol

Following the 1991 Persian Gulf War, international inspectors determined that Iraq had been engaged in a clandestine nuclear weapons development program at locations not subject to IAEA safeguards. To strengthen the safeguards system, the General Secretariat of the IAEA negotiated a Model Additional Protocol to amend existing bilateral arrangements. The Model Additional Protocol requires enhanced information collection and access at all declared commercial and other facilities conducting activities involved with the nuclear fuel cycle to provide IAEA inspectors with greater ability to detect clandestine nuclear activities in non-nuclear weapon states (NNWS).

Provisions of the U.S. Additional Protocol

As a nuclear-weapon state (NWS), the United States is not obligated to accept IAEA safeguards on its nuclear However, the United States signed both a Safeguards Agreement and the Additional Protocol to demonstrate to NNWS that participation in the safeguards regime would not place NNWS at a commercial disadvantage. Through the U.S. Additional Protocol, the United States accepts all measures contained in the Model Additional Protocol, except where their application would result in access by the IAEA to activities with direct national security significance to the United States or to locations or information associated with such activities. Additionally, through a Subsidiary Arrangement concluded between the United States and IAEA, the United States can apply managed access procedures to protect confidential business information and other sensitive information from disclosure.

<u>Scope / Subject Information and Activities</u>: Because the U.S. Additional Protocol will cover all aspects of the civil nuclear fuel cycle, many locations engaged in purely commercial activities not involving nuclear material will be subject to the Protocol's provisions. In addition to "facilities" housing nuclear material, locations engaged in the following activities will be subject to U.S. Additional Protocol declaration and access provisions:

- Public and private nuclear fuel cycle-related research and development not involving nuclear material,
- Information on "sites" where facilities are located,
- Manufacturing, assembly, or construction of nuclear fuel cycle-related equipment and non-nuclear material,
- Uranium and thorium mines and thorium concentration plans.
- Source material holdings and imports/exports,
- Non-nuclear, non-safeguarded waste processing,
- Import and export of non-nuclear equipment and material, and
- Plans for development of the nuclear fuel cycle in the United States.

BIS will have regulatory authority for commercial activities that are not licensed by the Nuclear Regulatory Commission (NRC) or an NRC Agreement State, or that are not located at a Department of Energy or Department of Defense facility. Specifically, BIS will regulate public and

¹ For the purposes of the Additional Protocol, activities within a "controlled" or "restricted" area (as defined by 10 CFR Part 20) will be regulated by the NRC. BIS will regulate activities that extend beyond or are located outside

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private research and development activities not involving nuclear material, manufacturing of non-nuclear fuel cycle-related equipment and material, uranium hard-rock mining and ore beneficiation, and upon IAEA request, imports of nuclear equipment or non-nuclear material. The remainder of this section will pertain exclusively to these activities.

U.S. Declaration Requirements: The U.S. Additional Protocol requires the United States to submit to the IAEA declarations pertaining to the aforementioned activities. Declaration timelines differ according to the activity. Within 180 days of entry into force of the U.S. Additional Protocol, the United States will submit an initial declaration to the IAEA. The United States also is required to provide updates of this information annually, on May 15. Provision of information regarding exports of non-nuclear materials and equipment will be provided to the IAEA on a quarterly basis while imports of these items will be reported only upon request by the IAEA. Companies will be notified by BIS if they are required to report information pertaining to the import of these materials.

Generally speaking, declarations on research and development activities will include a description of the project objective and activities, as well as the project level (e.g., theoretical analysis, experiment, demonstration).

Specific manufacturing, assembly and construction activities subject to declaration requirements are listed in Annex I to the U.S. Additional Protocol. These activities include, for example, the manufacture of centrifuge rotor tubes, zirconium tubes, construction of hot cells, and the manufacture of nuclear grade graphite. The Annex is similar to the Nuclear Suppliers Group trigger list (10 CFR Part 100, Appendix A). Declarations pertaining to manufacturing will include their location, a description of the scale of operations, the type of manufacturing activities, and annual production capacity.

Declarations on mining activities will include the location (GPS coordinates and approximate street address), operational status and estimated annual production capacity of uranium hard rock mines and ore beneficiation acitivities. Upon request from the IAEA, the United States will provide the current annual production of an individual mine.

The United States will provide quarterly reports pertaining to the export of equipment or non-nuclear material specified in Annex II of the U.S. Additional Protocol. Export reports will be submitted according to NRC guidelines as set forth in their regulations (10 CFR Part 75 and 10 CFR Part 110). Information pertaining to the import of these materials

would be provided only if specifically requested by the IAEA. The IAEA will only request import information in order to confirm a declared export of material or equipment to the United States from another State Party. Export and import declaration information will include the identity and quantity of the item exported/imported, location of intended use, and date of export/import into or out of the United States.

In addition, upon IAEA request, the United States will provide amplification or clarification to any declared information pertaining to these activities.

Complementary Access Provisions: The Additional Protocol contains provisions for IAEA inspectors to access locations engaged in declared activities. This access is referred to as Complementary Access. Though the IAEA will not systematically verify declarations, it can seek access to locations for the specific purposes stated in the Additional Protocol. Mining activities are subject to a 24 Prior to requesting access for hour advance notice. activities other than mining, the IAEA will first provide the United States with an opportunity to clarify and facilitate resolution of a question or inconsistency pertaining to the U.S. declaration, unless the IAEA determines that a delay in access would prejudice the purpose for which the access is sought.

The IAEA will provide at least 24-hours notice prior to any complimentary access. There are no time parameters established in the Protocol, but inspectors are required to work only during normal business hours, unless otherwise agreed.

The IAEA may request access to a research and development location, equipment / non-nuclear material manufacturer, or location importing monitored equipment in order to resolve a question or inconsistency relating to a declaration after a clarification request has been issued. Additionally, the IAEA may request access to a uranium mine in order to assure the absence of undeclared nuclear material or activities.

IAEA complementary access techniques may include visual observation, collection of environmental samples, utilization of radiation detection and measurement devices, examination of production and shipping records, and other agreed measures. Access techniques for uranium mines also may include item counting of nuclear material and non-destructive measurement and sampling.

Managed Access: Both the U.S. Additional Protocol and the Subsidiary Arrangement to the Protocol afford certain managed access rights to the United States in the event of complementary access. Managed Access means

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procedures implemented by the U.S. Government prior to and during a complementary access at a location, to protect information or activities of direct national security significance, to prevent the dissemination of proliferation sensitive information, to meet environmental, health, safety, physical protection requirements, or to protect proprietary or commercially sensitive information. Examples of managed access contained in the Subsidiary Arrangement include shrouding or removing sensitive papers, shrouding equipment, logging off computer systems, restricting safeguards instrumentation to the purpose of access, or giving only individual inspectors access to certain parts of the inspected location.

BIS Methodology in Implementing the U.S. Additional Protocol

Reports: To reduce the reporting burden to industry, information required to be submitted to BIS will be kept to the minimum necessary to fulfill U.S. treaty obligations. Additionally, BIS will employ "check-box" forms, where possible, for industry to use when compiling reports, thus minimizing the need for free-style writing. Reports will be submitted to BIS in paper format by fax, by mail or hand delivery/courier. After submitting initial reports, companies whose activities do not change from the previous calendar year will only need to submit a "no-changes" report, thereby reducing paperwork burdens.

Complementary Access: Based on discussions with the IAEA, the United States does not anticipate receiving more than a few instances of complementary access annually. BIS, however, will work with companies and the IAEA to clarify any questions or inconsistencies pertaining to declarations to preempt a possible complemetary access.

Should complementary access occur at an industry location for which BIS is lead agency, BIS will apply a methodology to assist the company in preparing for complemntary access, as well as guide and expedite the access. BIS has over seven years of experience in successfully applying a similar methodology during Chemical Weapons Convention inspections. This may include:

- Providing assistance visits to locations cost-free, upon request;
- Providing advance preparatory assistance to a location upon notification of complementary access;
- Escorting IAEA inspectors at all times during the access while on the grounds of a company; and
- Coordinating with security countermeasures experts to protect sensitive information or technology.

Conclusion

For more information on the U.S. Additional Protocol, the IAEA, and BIS's implementation of the U.S. Additional Protocol for U.S. industry, please call BIS's Treaty Compliance Division at 202-482-1001 or visit www.ap.gov.