

## ACTION SHEET 11

between

The United States Department of Energy (DOE)

and

The Japan Atomic Energy Research Institute (JAERI)

for

Establishment of a Planning and Coordination Group

to oversee the Clean Laboratory Project of JAERI

for Environmental Sample Analysis

Pursuant to the DOE/JAERI Agreement Concerning Research and Development in Material Control, Accountancy, Verification, and Physical Protection, DOE and JAERI agree to cooperate on the Clean Laboratory Project of JAERI related to development of a clean chemistry laboratory and procedures for analysis of environmental samples (hereinafter referred to as the Project). In doing so, DOE and JAERI agree to carry out the cooperative effort outlined in this Action Sheet (hereinafter referred to as the Task).

### A. Objective

The objective of the Task is to create and maintain a planning and coordination group (hereinafter referred to as the P/C Group) to oversee and direct the Project throughout its duration. Three major areas of cooperation have been defined. First is a cooperative effort on the design and construction of a clean chemistry laboratory in Japan. Second is a cooperative effort to define the procedures and infrastructure requirements necessary for the operation and maintenance of the clean chemistry laboratory. Third is a cooperative effort to establish and maintain chemical separation procedures, analytical measurement techniques, and quality assurance procedures.

### B. Current Activities

The DOE assisted the IAEA in the design, construction, and operations of a clean chemistry laboratory at the Seibersdorf Laboratory complex. The laboratory design used at Seibersdorf is patterned after the facility at the Los Alamos National Laboratory (LANL). Five DOE laboratories are qualified as members of the IAEA Network of Analytical Laboratories for analysis of environmental samples for safeguards. The DOE has assisted in the training of

inspectors to obtain samples and laboratory personnel for analyzing samples in support of environmental sampling being implemented as a safeguards tool under the IAEA 93+2 program. The DOE is assisting the IAEA to produce quality assurance samples applicable to specific environmental matrices.

JAERI has a scheme of building and operating a clean laboratory at the JAERI Tokai Research Establishment. JAERI has funds budgeted in Japanese Fiscal Year (JFY) 1996 for design and establishment of usage requirements for the clean chemistry laboratory and to begin training of an expert among other items. JAERI is selecting a location for the facility and has initiated preparatory work for the design process. JAERI has requested technical collaboration with the DOE to support the design, construction, and operation of the laboratory and for implementation of appropriate technical procedures. Applications to be supported are safeguards, CTBT, and other nuclear related sample collection and analysis. (\*)

(\*) Note: Integrating all of the perceived uses into the design aspects of a clean chemistry laboratory is essential to assure the quality and integrity of all the sample analysis results.

#### C. Scope of Work

Recognizing the complexity and expected duration of this project, JAERI and LANL will establish the P/C Group to oversee and direct the Project throughout its duration. The effort of the P/C Group will involve the following three aspects of the clean laboratory and its uses:

1. The clean laboratory building and equipment.
2. Protocols, procedures, training, and infrastructure requirements for the operation and maintenance of the clean laboratory facility.
3. Training, procedure transfer and development, and quality assurance for the collection and analysis of safeguards related materials from environmental samples in various matrices.

#### A. Proposed Cooperative Activities

The initial activity under this Action Sheet will be for the P/C Group to define the projected uses of the clean laboratory and, based on this information, to generate the following action sheets:

- A system requirements document for the design, construction, and operations of a clean chemistry laboratory (Projected action sheets 12 and 15)
- A training requirements document (Projected action sheet 13)
- A comprehensive action plan for the continued technical cooperation in the design, and

construction of the facility and the subsequent implementation of environmental sampling and analyses. (Projected action sheet 14 and/or other action sheets to be determined)

The projected schedule for production of the document is shown in the attached Provisional Schedule of Activities for the Task.

The continuing activity under this Action Sheet will be for the P/C Group to oversee and direct the Project throughout its duration.

#### E. Program Management

LANL is responsible for the DOE coordination of the joint activities with JAERI. Industrial experts in the U.S. may be used to complement the DOE laboratories' expertise. LANL shall work directly with JAERI in planning tasks and resolving programmatic and technical questions. U.S. DOE's representative in the American Embassy-Tokyo shall serve as the DOE representative for the Project in Japan.

The Safeguards Technology Laboratory at JAERI is responsible for all JAERI interactions under this Action Sheet.

#### F. Fiscal Management

The activities carried out by DOE and JAERI will be funded and managed by each respective organization. No exchange of funds is anticipated at this time.

#### G. Duration and Termination

This Action Sheet shall enter into force upon the last day of signature and shall continue in force until mutually agreed by the parties that all activities under this Action Sheet are complete. This Action Sheet and its results shall be reviewed at the annual meeting of the Permanent Coordination Group (PCG).

For the United States  
Department of Energy

For the Japan Atomic  
Energy Research Institute

Signature: Kenneth E. Sanders

Signature: Keisuke Kaieda

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Name: Kenneth E. Sanders

Name: Keisuke Kaieda

Title: Director  
International Safeguards Division

Title: Director  
Office of International Affairs

Date: 2/14/97

Date: 2/14/97

*Provisional Schedule of Activities*

Activity	Responsibility	Schedule/Status
1. The Task Starts	DOE(LANL)/JAERI	January 1997
2. Sign Coordination Group Action Sheet (AS 11)	DOE(LANL)/JAERI	January 1997
3. Initial P/C Group meeting at JAERI for one week	DOE(LANL)/JAERI	January 1997
4. Develop and Sign Initial System Requirements action sheets (AS 12)	DOE(LANL)/JAERI	January 1997
5. Develop and Sign Initial Training action sheet (AS 13)	DOE(LANL)/JAERI	January 1997
6. Develop and Sign Final System Requirements action sheet (AS 15)	DOE(LANL)/JAERI	January - March 1997
7. Second meeting of P/C group in Washington DC	DOE(LANL)/JAERI	17 March 1997
8. Draft of comprehensive design, construction, implementation action sheet (AS 14 and/or other ASs)	LANL	January- April 1997
9. Draft of Action Sheet 14 delivered to JAERI	LANL	1 May 1997
10. Final draft of Action Sheet 14 written and approved	LANL	May- December 1997
11. Sign action sheet 14	DOE(LANL)/JAERI	1 April 1998
12. Meetings of P/C group as needed	DOE(LANL)/JAERI	TBD
13. Technical coordination on use of clean chemistry laboratory and environmental sample analyses	LANL/JAERI	April 1998 - TBD
14. Completion of the Task		TBD