

ACTION SHEET 8

between

**The United States Department of Energy (DOE)
and
The Japan Atomic Energy Research Institute (JAERI)**

for

**Exchange of Personnel to Support the Development of an
Unattended Spent Fuel Block Flow Monitoring System (UFFM)
for the High Temperature Engineering Test Reactor (HTTR)**

Pursuant to the DOE/JAERI Agreement Concerning Research and Development in Material Control, Accountancy, Verification, and Physical Protection, DOE and JAERI agree to carry out the cooperative effort outlined in this Action Sheet.

A. Objective

DOE and JAERI undertake to carry out an exchange of personnel to support the development and application of the unattended fuel flow monitor (UFFM) technique for spent fuel blocks as an element of the safeguards system for the HTTR.

B. Current Activities

1. DOE activities relevant to flow monitoring techniques:

Los Alamos National Laboratory (LANL) has developed plutonium fuel flow monitoring techniques for safeguards use.

2. JAERI activities relevant to flow monitoring techniques:

JAERI has developed the safeguards concept for the HTTR. This concept includes the installation of a fuel flow monitoring system to provide nuclear material control and verification of spent fuel blocks discharged from the HTTR core.


C. Proposed Cooperative Activities

1. JAERI and DOE, through LANL, will jointly design and assess the UFFM technique as part of the HTTR safeguards system. To achieve an efficient and effective interface for design and installation of the UFFM system, JAERI proposes to send Mr. S. Nakagawa to LANL. The HTTR safeguards concept is described in the document, "Safeguards Approach for the High Temperature Engineering Test Reactor (HTTR)," JAERI, February 1996. Mr. Nakagawa will participate in all activities at Los Alamos related to the HTTR safeguards system development.
2. Mr. Nakagawa will arrive at Los Alamos before April 1, 1996 for a one year assignment with possible extension to two years.
3. As time permits, Mr. Nakagawa will work with Los Alamos safeguards technical staff to learn about system related and nondestructive assay (NDA) measurement methods.

D. Fiscal Management

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

For the United States
Department of Energy

Signature: 

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Name: Kenneth E. Sanders

Title: Division Director

Date: 8 March 1996

For the Japan Atomic
Energy Research Institute

Signature: Hideo Nishimura

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Name: Hideo Nishimura

Title: Principal Scientist

Date: 27 March 1996