

**LETTER OF INTENT
BETWEEN
THE JAPAN ATOMIC ENERGY AGENCY
AND
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ON
COOPERATION IN THE FIELD OF RADIATION PROTECTION**

I. PURPOSE

The purpose of this Letter of Intent (LOI) is to both memorialize the ongoing cooperative relationship between the Japan Atomic Energy Agency (JAEA) and the United States Environmental Protection Agency (EPA) in the field of radiation protection and set forth the terms and conditions by which this uninterrupted cooperative relationship is to continue over the next five years.

II. COOPERATIVE PROGRAM SUBJECT AREAS

JAEA and EPA intend to focus on the following four subject areas for the duration of this LOI:

1. Radiation dosimetry
2. Radiation risk assessment
3. Radiation protection standards
4. Emergency planning and response

III. OBJECTIVES

The objectives identified below, which have guided the ongoing cooperative relationship between the JAEA and EPA (the “Participants”), and as memorialized in their Letters of Intent dated 1986, 1993, 1999, 2002, 2005, 2008 and 2013, are intended likewise to remain in effect for the duration of this LOI. These objectives are as follows:

- To work cooperatively on the basis of mutual benefit, equality, and reciprocity.
- To exchange information regarding radiation protection, including the sharing of study results and information produced as a result of cooperative and investigative programs.

- To periodically convene technical group meetings, arranged jointly by the Participants, in order to: (1) discuss present and future work in the Participants' respective radiation protection programs; and (2) exchange relevant technical information resulting from programs of mutual interest and relevance.
- To engage in only those activities and implement only those scopes of work to which the Participants mutually consent.
- To make available for use by the Participants and their contractors, as appropriate, information and computer codes transmitted under, or directly arising from information transmitted under this cooperative program, in accordance with the policies, laws, and regulations of the Participants. Additionally, neither Participant intends to disseminate or publish such information without the prior written consent of the transmitting agency, unless required by law or administrative procedure. The application or use of any information exchanged or transferred between the Participants is the responsibility of the agency receiving the information, and the transmitting agency does not warrant the suitability of the implementation for any particular use or application.
- To designate a "coordinator" or "coordinators" for each Participant to manage the coordination, preparation, and implementation of matters within the scope of this LOI.

IV. SPECIFIC ROLES AND RESPONSIBILITIES

This cooperative program is intended to focus on the scientific bases for establishing criteria or policy guidelines on radiation protection and safety. Cooperative efforts under this LOI are expected to include, among other activities, the exchange of information and personnel as well as the convening of technical meetings and workshops.

Explicitly, and although the Participants may decide to engage in additional activities not specifically identified in this LOI, the Participants intend to do the following:

1. Radiation dosimetry

- JAEA and EPA to exchange information regarding the following four subject areas:
 - Development of internal dose assessment method(s) based on the International Commission on Radiological Protection (ICRP) Publication 103 recommendations.

- Evaluation of dose conversion coefficients for internal and external exposures.
- Assessment of radiation dose from radionuclides in the environment.
- Reliability of dose assessments.

2. Radiation risk assessment

- EPA to provide radiation risk assessment models and related data as well as information on the radiation risk comparison with other risks.
- JAEA to provide available information on basic radiation risk data in Japan as well as information on the application of risk assessment models.
- Both Participants to cooperate in the area of radiation risk modeling and the application of models to the development of radiation protection standards, as necessary.
- Both Participants to share information on the uncertainty of radiation risk assessment, including the sharing of a report by EPA on the uncertainty of EPA radionuclide cancer risk coefficients.
- Both Participants to share information on research activities related to the mechanisms of low dose radiation effects.

3. Radiation protection standards

- The Participants to keep each other informed of current activities on basic policy, radiation protection standards, and technical information supporting amendments to various radiation protection standards. In particular, the Participants intend to keep each other informed of activities and developments in the following areas:
 - Implications of the ICRP Publication 103 recommendations.
 - Occupational and public exposure.
 - Clearance, exclusion, and exemption.
 - Naturally occurring and accelerator produced radioactive materials (NARM).
 - Cleanup of contaminated land and buildings.
 - Radioactive waste disposal and management.
 - Exposure to natural radiation.

4. Emergency planning and response

- The Participants to keep each other informed of technical information and policy decisions related to emergency planning and response in the following areas:
 - Evaluation of changes in radionuclide distribution in the environment over time.

- Emergency radiation monitoring techniques.
 - Cleanup of contaminated inhabited areas.
 - Recovery of the environment in emergency response.
- The Participants to cooperate in the area of dose evaluation modeling of emergency responders and the application of models to the development of radiation protection standards for emergency responders, as necessary.

V. LIMITATIONS

All commitments made by the Participants under this LOI are subject to the availability of appropriated funds. Nothing in this LOI, in and of itself, obligates EPA or the JAEA to expend appropriations or to enter into any contract, assistance agreement, interagency agreement, or incur other financial obligations. All activities related to the implementation of this LOI are intended to be handled in accordance with the applicable laws, regulations, and procedures of the Participants. This LOI is an arrangement that is aspirational in nature; therefore, it does not create obligations binding under international or domestic law.

VI. COMMENCEMENT/MODIFICATION/DURATION/TERMINATION

This LOI is intended to take effect upon signature by the Participants and remain in effect for a period of five (5) years. This LOI may be extended or modified at any time per the mutual written consent of the Participants. A Participant may discontinue its participation in this LOI at any time by providing written notice to the other Participant, but such notice should be provided at least thirty (30) days in advance of the desired discontinuation date.

SIGNED:

Japan Atomic Energy Agency

U.S. Environmental Protection Agency



 Kazumasa Hioki Date
 Director,
 Office of Strategy and International Affairs



 Jonathan Edwards Date
 Director,
 Office of Radiation and Indoor Air