

**MEMORANDUM OF UNDERSTANDING**  
**ON LONG-TERM STEWARDSHIP AT RADIOACTIVE AND HAZARDOUS**  
**WASTE FACILITIES IN THE WORLD**

**BETWEEN THE**  
**WORLD FEDERATION OF SCIENTISTS**  
**AND**  
**THE FOLLOWING NUCLEAR POWERS:**

**CANADA**

**RUSSIA**

**JAPAN**

**UNITED KINGDOM**

**USA**

**2004**

# **I. INTRODUCTION**

Long-Term Stewardship (LTS) issues impact nearly every country since many cleanup sites throughout the World will have residual contamination that does not allow for unrestricted use. As government agencies with responsibility for ensuring compliance with environmental laws and protection of public health and the environment, members of the World Federation of Scientists and the participating countries of the world have developed this Memorandum of Understanding (MOU) to address LTS needs and activities at these sites.

This is not a binding contract but is a memorandum of understanding that broadly states basic understandings between the parties regarding the elements contained herein. Nothing in this MOU will in any way infringe upon or limit the authority of any party to carry out its responsibilities under various country laws. This MOU shall not be used to obligate or commit funds or as the basis for transfer of funds. The details of the level of support to be furnished by the parties with respect to funding will be developed in separate inter-party agreements or other agreements, subject to the availability of appropriated funds.

This MOU will become effective as to each party upon its signature by that party. Any party may terminate its participation in the MOU with 30 days written notice to the other parties. The MOU may be amended if changes are agreed to by all of the parties. The MOU will sunset in XXXX years from the date of the first signature, unless the parties mutually agree to an extension.

## **II. PURPOSE**

The purpose of this MOU is to provide a common understanding and basis for discussion and coordination between the World Laboratory and participating countries regarding LTS. Given that there are multiple federal agencies conducting both cleanup and stewardship activities, a coordinated effort is needed to address LTS at these sites. Such a

forum provides an opportunity for the parties to discuss LTS issues, policies, procedures, coordination mechanisms and generally applicable tools for LTS sites. This dialogue will help promote a greater level of consistency, effectiveness and public health and environmental protection at contaminated properties associated with government activities throughout the world and should help foster a stewardship ethic into remediation and post-remediation activities.

### **III. PARTIES**

The parties to this MOU are: the World federation of Scientists, Canada, Russia, Japan, United Kingdom and the USA Additional entities may become signatories to this MOU with the consent of all the current parties.

### **IV. JOINT VISION FOR LONG-TERM STEWARDSHIP**

The undersigned parties to this MOU are committed to the protection of public health and the environment from hazards associated with the cleanup of sites that may have residual contamination or ongoing waste management responsibilities for as long as necessary, or until all relevant parties agree that there are no requirements for further response action. To this end, the parties aspire to establish and maintain a collaborative working relationship in our collective efforts to improve coordination and to ensure long-term stewardship challenges are met at these sites.

### **V. DEFINITION OF LTS**

LTS generally includes the establishment and maintenance of physical and non-physical controls, implementation entities, authorities, accountability mechanisms, information and data management systems and resources that are necessary to ensure that cleanup sites with residual contamination that does not allow for unrestricted use or with ongoing waste management responsibilities after completion of response action remain protective. These elements are more explicitly described in the list of LTS site components below.

### **VI. SHARED PRINCIPLES FOR LTS**

The following principles are presented to offer a broad approach and advice for the design, management and implementation of LTS functions and activities by the participants in the joint LTS process:

1. LTS Consideration in the Remedy Process- LTS should be actively considered in the response action planning, design, implementation and decision-making processes. Life cycle costs and effectiveness of LTS and remedial options need to be factored into the remedy decisions.
2. Protectiveness- LTS functions and activities must assure ongoing protection of public health, the environment and natural ecosystems for sites with residual contamination after response action is undertaken, consistent with pertinent laws and regulations.
3. Longevity- The commitment to ensure the sustainability of the remedy and the performance of LTS functions should extend over the lifetime of the contamination hazard and be able to span generations, if necessary. Given the potential duration of some remaining risks, current assumptions may require periodic reevaluation and modification.
4. LTS Roles and Responsibilities- LTS management and implementation roles and responsibilities should be clearly articulated, accepted by all appropriate parties and documented through legal and other means. Assumptions regarding the determination and apportionment of LTS activities among federal, state, tribal, local government and private entities (including the site's owner) should also be defined and stated at the outset. In some cases, the site's owner will have principal responsibility for implementing and managing LTS actions. Given the inter-generational aspect of LTS and the potential for change over time, appropriate mechanisms should be developed to ensure continued performance of these LTS roles and responsibilities. The parties should also consider potential LTS impacts when planning and managing their respective sites in the future.

5. Funding- The potential costs of long-term remedy surveillance and maintenance should be identified and incorporated into the remedy decision-making process. The amount, source and process for securing the necessary funds should also be identified. Government agencies will seek to acquire the resources necessary to carry out their LTS activities at their respective sites. To the extent that a state/province agrees that it may also have responsibility on state lands for selected activities at a site, it will also seek to acquire resources from appropriate sources for those activities. The parties understand that government and state/provincial government appropriation processes will determine the actual amount of funds to be made available for these activities.
6. Application of New Science and Technology- There should be a mechanism to examine and share new technologies for cleanup and LTS actions over time and to consider whether the application of such would provide a more cost-effective means of assuring or enhancing protection of public health and the environment in ongoing or future response actions.
7. Natural, Historical and Cultural Resources- Conservation and protection of natural, historical and cultural resources should be integrated into the development, management and implementation of remedial actions and LTS functions. This consideration should extend to land management plans that have been implemented. Future land use plans should recognize the obligations and needs imposed by LTS. Consultation with appropriate tribal representatives should also be undertaken on cultural resource matters associated with tribal lands.
8. Local government, public and stakeholder involvement and information sharing - Effective mechanisms need to be in place to assure that local government, stakeholders and the public have timely and appropriate access to data and information and are provided appropriate opportunities for public participation in ongoing LTS processes.

9. Expedite Formation of an LTS Framework- Federal, state, tribal and local agencies should work cooperatively to expedite formulation of policies, orders, guidance and training that are needed to institutionalize their LTS commitments.

## VII. LTS SITE COMPONENTS

The World Federation and the relevant country agencies agree to have further discussion and coordination regarding the following components of LTS functions for sites with completed response actions that have residual contamination that does not allow for unrestricted use, or for sites with ongoing waste management responsibilities associated with such residual contamination. These components will not duplicate actions or documents already required in the environmental restoration process.

The LTS site components to be addressed should include, but are not limited to, the following:

1. A **site history and contamination summary** that defines who owned and used the property for what periods and purposes, a depiction of the magnitude and extent of contamination, a description of historic or ongoing cleanup activities and standards and a characterization of remaining contamination pathways and risks associated with the site.
2. An **LTS management plan** including identification of existing and, to the extent possible, future management, implementation and land management entities, and their agreed upon roles and responsibilities at the site.
3. **Engineered and physical controls** that are adequately documented.
4. **Institutional and land use controls** that are adequately documented.
5. A listing of **applicable authorities**, treaty rights and/or trust obligations, performance standards and enforcement mechanisms being utilized to assure protection of public health, the environment and natural ecosystem.

6. Identification of the scope of work, the **costs**, and the sources from which funds will be sought to fulfill LTS responsibilities at the site.
7. An **operation and maintenance plan** including spill and emergency response and security measures, if necessary.
8. A system of **performance accountability** including assessment, measurement, monitoring and reporting elements.
9. A mechanism to work within the appropriate regulatory framework to ensure **periodic reassessment** and **consideration of new science and technologies** that may become available for protection of public health and the environment.
10. A **plan for managing records and information management systems** such that they remain current, are accessible to the public, and are designed with adequate flexibility to meet the needs of interested parties.
11. Ongoing **public and stakeholder involvement** and information sharing mechanisms.
12. A **site transition framework** with consistent transition criteria, may also be a useful mechanism to facilitate certain ongoing LTS functions.

## **VIII. SIGNATORIES**

This MOU is approved by the signatories on the following pages on behalf of their respective organizations.

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