Memorandum of Understanding between The Department of Energy of the United States of America and

The Public Agency for Radioactive Waste Management of the Republic of Hungary

for

Information Exchange Relating to Operation of Modular Vault Systems for Storage of Spent Nuclear Fuel

1. Participants

The United States Department of Energy (DOE), a Participant to this Memorandum of Understanding (Memorandum), is the agency responsible for the management of radioactive wastes produced by or in the possession of the U.S. Government (commercial reactor nuclear waste excluded) within the United States, including spent nuclear fuel (SNF). DOE is the owner, operator, and licensee of the Fort St. Vrain (FSV) MVDS and the Hanford Canister Storage Building (CSB). DOE's Idaho Operations Office (DOE-ID) is responsible for the FSV MVDS; the DOE's Richland Operations Office (DOE-RL) is responsible for the Hanford CSB.

The Public Agency for Radioactive Waste Management (PURAM), a Participant to this Memorandum, is the Hungarian agency responsible for the management of radioactive wastes within Hungary. PURAM is the operator and licensee for the Paks Facility. PURAM is supported in its fuel storage mission by the facility designers: SOM System Kft., and BNS Nuclear Services Limited (Ltd.). BNS Nuclear Services, Ltd. was also the designer of the Fort St. Vrain MVDS facility.

2. Objectives of the Information Exchange

The objectives of this Memorandum are:

- To facilitate the exchange between the Participants of information and lessons learned relating to the operation of spent fuel vault storage systems. The information is for use by each Participant for its own needs, and is not to be shared with third parties (except for the designers BNS Nuclear Services Ltd. and SOM) without the written permission of the providing Participant, subject to each Participant's compliance with applicable laws and regulations of its respective government.
- To facilitate each Participant's solicitation of opinions from the other Participant on design and operational issues/enhancements.
- To facilitate visits and technical meetings between the Participants at SNF storage facilities or a jointly determined location in their respective countries.

3. Implementation of Information Exchange

- i). Information exchanged under this Memorandum by a Participant should be summarized in an annual report to be prepared by that Participant for submission to the other Participant in July of each year. The content of such reports may include, as appropriate, information exchanged on operational, technical, and design aspects regarding the aforementioned facilities related to:
 - the management of SNF arising from the nuclear fuel cycle including retrieval, conditioning/packaging, and interim storage in an MVDS (including operation and maintenance of associated equipment); and
 - associated regulatory compliance, including nuclear and industrial safety and health, materials accountability, decontamination and decommissioning activities, and the protection and restoration of the environment.
- ii). Areas of specific mutual interest include but are not limited to the following:
 - regulatory framework and compliance strategies/methodologies,
 - the operational cycle/performance of the facilities,
 - operations policy and methods, procedures, and staffing levels,
 - a description of operational experiences and any problems encountered,
 - a description of the root causes and solutions to the operational problems described above,
 - dose uptake during operations: actual -v- target,
 - radiological and hazardous releases from the facility: actual -v- target,
 - ALARA (as low as reasonably achievable) radiological exposure reviews and associated dose reduction programs/opportunities,
 - maintenance policy and procedures/staffing,
 - policy regarding on-site spares (quantity and type),
 - maintenance experiences and any problems encountered; lessons learned,
 - a description of the root causes and solutions to the maintenance problems,
 - fuel handling machine/Multi-Canister Overpack (MCO) handling machine operational and maintenance status,
 - ongoing design modifications to enhance and/or support operations,
 - planned facility modifications,
 - implemented modifications to the facilities, and
 - other relevant experience/information, such as industry informational exchanges, lessons learned, results of any aging management studies of system, structures, and components.
- iii). Information gathering and information sharing visits to each Participant's facility(ies) as appropriate. Visits should be arranged to suit individual schedules or specific points-of-interest. A meeting should be held at a SNF storage facility

or a mutually selected location of one Participant or the other at least once every three years.

iv). Written reports and correspondence are to be in the English language. Meetings are to be held primarily in the English language, with any necessary language interpretation provided.

4. Contacts

i). The points-of-contact within PURAM are:

Director of Operation
Director of Science and Technology

ii). The points-of-contact within DOE-ID are:

DOE-ID Licensing Manager for U.S. Nuclear Regulatory Commission-regulated activities.

DOE-ID Facility Director, FSV MVDS

iii). The point-of-contact within DOE-RL is:

Federal Project Director, RL-0013 Solid Waste Stabilization and Disposition

5. General Provisions

- i). This Memorandum does not create any legally binding obligations between the Participants.
- ii). Cooperation under this Memorandum is subject to the availability of appropriated funds, personnel and other resources.
- iii). Each Participant should conduct the cooperation contemplated by this Memorandum in accordance with applicable laws and regulations of its respective government and international agreements to which that Participant's government is party.

6. Commencement, Modification, and Duration

- i). Cooperation under this Memorandum may commence upon signature and continue until discontinued by either or both Participants.
- ii). The Participants may discontinue this Memorandum at any time in writing. A Participant that wishes to discontinue its participation in this Memorandum should

- endeavour to provide the other Participant 90 days' advance notice thereof in writing.
- iii). Upon the Participants' joint determination, this Memorandum may be modified at any time in writing. Any such modification may take effect upon signature.

Signed in duplicate.

FOR THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA:

Yvette T. Collazo Acting Director

Technology Innovation & Development

Date: 11 3 59
Place: Washington, D.C.

FOR THE PUBLIC AGENCY FOR RADIOACTIVE WASTE OF THE REPUBLIC OF, HUNGARY:

Ir. Ibzsef Hegyhati managing director PURAM

Date: 12/02/09
Place: Budaors