MEMORANDUM OF UNDERSTANDING BETWEEN THE U.S. DEPARTMENT OF ENERGY AND THE U.S. NUCLEAR REGULATORY COMMISSION REGARDING THE MANAGEMENT OF (1) EXISTING SODIUM-BEARING WASTE AND (2) RESIDUAL WASTE FROM THE CLOSURE OF THE HIGH-LEVEL WASTE STORAGE TANKS AT THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

(1) INTRODUCTION

a) Background

The U.S. Department of Energy, Idaho Operations Office (DOE-ID) is under a State of Idaho Consent Order to cease use of eleven underground high-level waste (HLW) storage tanks at the Idaho National Engineering and Environmental Laboratory (INEEL). Over the past 40 years, these tanks have received 9.4 million gallons of waste from spent nuclear fuel reprocessing, other ancillary processes, and decontamination activities, and all but 1.3 million gallons have been removed and solidified. DOE-ID is preparing to remove and treat the remaining 1.3 million gallons for disposal and to close the tanks to meet RCRA requirements and DOE orders.

Beginning in 1953 and ending in 1992, nuclear fuel reprocessing operations at the INEEL produced 9.4 million gallons of waste that contained 45 million curies of radionuclides. Waste from 1st cycle extraction containing the bulk of the radioactivity was kept separate from other reprocessing waste (2nd and 3rd cycle waste, decontamination solutions, and other wastes). The 1st cycle extraction waste has been solidified into a granular product and has been placed into HLW storage bins awaiting final treatment for disposal. The 1.3 million gallons of other reprocessing waste that remains in the storage tanks contain less than 1.7 % of the original 45 million curies that were generated from fuel reprocessing. This waste is called sodium-bearing waste (SBW) because the majority of it is from decontamination solutions that were relatively high in sodium ions.

DOE Order 435.1, *Radioactive Waste Management,* and its implementing manual DOE Manual 435.1-1 address the management of radioactive waste including low-level waste (LLW), transuranic (TRU) waste, and HLW. The DOE Order describes the process that may be used for waste incidental to reprocessing (WIR) determinations. DOE-ID will attempt to demonstrate through the WIR determination process that the 1.3 million gallons of SBW are not HLW and can

be managed under DOE's authority as TRU waste. DOE-ID will also attempt to demonstrate that residuals that will remain in the tanks after SBW removal and tank closure can be managed as LLW, consistent with DOE guidelines. DOE-ID requests technical assistance from the U.S. Nuclear Regulatory Commission (NRC) in reviewing the DOE-ID WIR determinations to assess the adequacy of the methodology, and based on verification that the assumptions underlying the analyses are correct, that the health and safety of the public and protection of the environment is assured.

The State of Idaho has been a cooperating agency in the on-going development of the *Idaho High Level Waste & Facilities Disposition Environmental Impact Statement* at the INEEL. The State of Idaho maintains a high interest in the results of the WIR determination process.

b) Purpose

The purpose of this Memorandum of Understanding (MOU) between DOE-ID and NRC is to establish a basic framework for DOE-ID to consult with NRC regarding the management of existing radioactive SBW and the residual wastes from closure of HLW storage tanks at the INEEL. Specifically, the consultation will provide technical assistance to DOE-ID for determining whether SBW and solidified tank residuals are each WIR and are exempt from management as HLW.

c) Authority

The authority of DOE to regulate nuclear wastes and the authority for NRC to assist DOE are provided in the following reference documents.

Department of Energy

The Atomic Energy Act of 1954, as amended, including sections 31, 33, 91, 161I; the Energy Reorganization Act of 1974, including section 104; the Department of Energy Organization Act of 1977, including section 301(a); and the Economy Act of 1932, as amended.

Nuclear Regulatory Commission

The Economy Act of 1932, as amended: the Atomic Energy Act of 1954, as amended, including Section 31; the Energy Reorganization Act of 1974, as amended, including Section 205; Section VI of the umbrella MOU between NRC and DOE dated February 24, 1978; and Section

IV-B-2 of the MOU between NRC and DOE for Cooperation in Support of Significant Projects and Activities dated January 15, 1997.

d) Policy

Memorandums of understanding are discussed in DOE-ID Manual 120.A-1, *General Business Planning Alignment Manual,* Section D, Chapter 5, Memorandums of Understanding (MOU). This manual states, "MOUs should be used when it is necessary to establish a non-contractual understanding between the Department of Energy and a non-DOE entity concerning joint efforts to satisfy mutual needs of both."

(2) MANAGEMENT AND PROGRAM GUIDELINES

a) Management and Review

1) Responsibilities of Participating Parties

The Key Program Representatives for this MOU will be:

1. Director, Office of Nuclear Material Safety and Safeguards, NRC
2. Assistant Manager for Environmental Management, DOE-ID

These individuals may designate appropriate staff representatives for the purpose of administering this MOU.

2) Periodic Review by designated officials of participating organizations

Because this MOU is expected to be in effect for less than 2 years, a periodic review should not be necessary. If this MOU is extended for any reason, a review will be accomplished to establish the new requirements and if required, a review schedule for the extended MOU shall be established then.

3) Establishment of a steering committee and working committees, as appropriate to review and provide further guidance for joint activities

If this MOU is expanded to cover other activities, it is expected that a steering committee and working committees will be established to plan and coordinate the expanded effort. Because this MOU has a limited scope, committees will not be necessary for this initial effort.

4) Supplementary interagency or other agreements

An interagency agreement will be established to define the working relationship between DOE-ID and NRC. NRC will be reimbursed for the full cost of activities within the scope of this MOU, as provided for in the interagency agreement.

b) Guidelines

1) Each agency will be responsible for safeguarding, controlling, and accounting for classified, proprietary, and procurement-sensitive information used or furnished in connection with tasks under this MOU in accordance with its established procedures.

2) If an issue arises in the implementation of this MOU which cannot be resolved at the agency working level, NRC and DOE-ID agree to refer the matter within 30 days to the Director, Office of Nuclear Material Safety and Safeguards, NRC and to the Assistant Manager for Environmental Management, DOE-ID for appropriate action.

3) NRC's policy on open meetings (59 FR 48340, September 20, 1994) does not address meetings between NRC staff and other Federal agencies where the matter does not relate to a specific activity for which NRC has oversight. Meetings between the NRC and DOE in connection with these activities shall be governed by DOE's policies.

4) Committees such as the Advisory Committee on Nuclear Waste, the Defense Nuclear Facilities Safety Board, and the Nuclear Waste Technical Review Board provide independent review of their respective agency's facilities, activities, and related matters. As appropriate, NRC and DOE-ID agree to support these types of independent reviews by providing readily available information or attending briefings related to their respective areas of responsibilities.

5) DOE-ID will provide office space as necessary to accommodate NRC visits to the INEEL site and will coordinate attendance of all parties to any reviews requested by NRC. Close coordination between NRC and DOE-ID is essential to timely project completion.

6) Nothing in this MOU shall limit the authority of either agency to exercise its authority independently with regards to matters that are the subject of this MOU.

7) Nothing in this MOU is intended to conflict with any other MOU between NRC and DOE. In the event of a conflict between this MOU and any other MOU between NRC and DOE regarding prelicensing and licensing interactions affecting facilities of the Civilian Radioactive Waste Management System subject to licensing authority of the NRC, the provisions of the other MOU shall govern.

8) NRC's activities under this MOU are being carried out in an advisory capacity. Any advice given to DOE-ID under this MOU does not constitute a regulatory approval, authorization or license for DOE activities, or in any way affect NRC's authority in any licensing proceeding.

9) Nothing in this MOU shall be deemed to establish any rights or provide a basis for any action, either legal or equitable, by any person or class of persons challenging a Government action or a failure to act.

10) Nothing in this MOU or any activities performed by the DOE and the NRC pursuant to the MOU is intended to be determinative of any regulatory authority or jurisdictional issue between DOE and NRC.

c) Program Funding

The details of the level of support to be furnished one organization by the other with respect to funding will be developed in specific interagency agreements or other agreements, subject to the availability of funds.

d) Management Arrangements

This MOU envisages direct communication between DOE-ID and NRC officials involved in managing the work to be performed. Interagency agreements or project plans will set forth specific arrangements for program implementation. Such plans set forth necessary cooperative arrangements and procedures for handling decisions required by various Government officials. Specific funding and tasking will be implemented through interagency agreements.

e) INEEL Access Safety

The NRC may visit the INEEL for tours and/or meetings during the performance of these reviews. During such visits, the NRC would be under DOE-ID/DOE-ID contractor escort, who would be responsible for ensuring that INEEL safety practices are followed.

(3) Administration

a) Patents and Technical Data

Appropriate patent and other intellectual property provisions shall be included in interagency agreements and any other agreements entered into by the parties in order to implement this MOU. DOE patent and intellectual property policies shall apply to any such work performed by a contractor (including any subcontractor)

which is funded in whole or in part by DOE. Rights to inventions made by United Sates Government employees shall be determined by the employing agency.

b) Public Information Coordination

The results from NRC's final technical evaluation will be made available to the public. Subject to the Freedom of Information Act (5 U.S.C. 552), decisions on disclosure of other information to the public regarding projects and programs referenced in this MOU shall be made by the party who generates the document, following consultation with the other party's representatives.

c) Amendment and Termination

This MOU shall be effective upon signature of both parties. This MOU may be amended by written agreement between DOE and NRC. This MOU may be terminated by the mutual written agreement of DOE and NRC or by either party upon 30 day written notice to the other party. Unless otherwise provided herein, this MOU shall expire on December 31, 2002.

(4) Signatures

For the Department of Energy

Assistant Manager For
Environmental Management,
DOE-ID

5-28-01
Date

Contracting Officer For
DOE-ID

5-24-01
Date

For the Nuclear Regulatory Commission

Director, Office of Nuclear Material
Safety and Safeguards, NRC

Date