

POLICY ISSUE NEGATIVE CONSENT

August 6, 2001

SECY-01-0150

FOR: The Commissioners

FROM: William D. Travers
Executive Director for Operations

SUBJECT: MEMORANDUM OF UNDERSTANDING AND INTERAGENCY
AGREEMENT BETWEEN THE U.S. DEPARTMENT OF ENERGY AND
THE U.S. NUCLEAR REGULATORY COMMISSION ON THE REVIEW
OF INCIDENTAL WASTE DETERMINATIONS FOR THE IDAHO
NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

PURPOSE:

To inform the Commission that the staff plans to sign the attached draft Memorandum of Understanding (MOU) and the attached draft Interagency Agreement (IA), between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE), unless instructed otherwise by the Commission.

BACKGROUND:

In the memorandum dated June 18, 2001, the staff informed the Commission of DOE's Idaho Operations Office (DOE-ID) request (by letter dated February 7, 2001) for NRC consultation on, and review of, two draft incidental waste determinations. The memorandum briefly discussed what the determinations would entail, the scope of NRC's review, and the criteria against which we would review DOE's methodologies. The memorandum also explained why the staff was choosing to participate in the review and included resource and schedule estimates.

On July 17, 2001, the staff responded to DOE-ID, clarifying the criteria that would be used to review the incidental waste determinations, which are currently expected to be submitted in

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August 2001 and by December 2001. The first determination addresses management of sodium-bearing waste (SBW) as transuranic waste (TRU). Our review for this determination will only assess whether the SBW has been processed or will be processed to remove key radionuclides to the maximum extent that is technically and economically practical. The second determination addresses the closure of eleven high-level waste storage tanks. Our review will assess whether the tanks with residual waste have been or will be processed to remove key radionuclides to the maximum extent that is technically and economically practical. We will also review the determination to evaluate whether the waste will be managed so that safety requirements comparable to the performance objectives in 10 CFR Part 61 are satisfied. If DOE-ID's tank closure methodology meets these two criteria, the staff would conclude that managing this waste as incidental will be protective of public health and safety and the environment.

The staff has been working with DOE-ID staff to develop an MOU that establishes the framework for NRC to provide technical assistance to DOE-ID in regard to the incidental waste determinations. The staffs have also cooperated in the development of an IA to implement the MOU, which establishes that all costs incurred by NRC, including contractor support, will be reimbursed by DOE-ID. The staff believes that a review of DOE's methodologies will necessitate approximately 1.6 full-time equivalents (FTE) over a period of 14 months, including time for Commission review of the results of the staff's evaluation. Please note that the cost estimate included in the Memorandum from William D. Travers, Executive Director for Operations, to the Commissioners, dated June 18, 2001, indicated that only 1.1 FTE were needed for the reviews, assuming that 1 FTE was equivalent to 2000 hours. The Office of the Chief Financial Officer (OCFO) has since advised the staff that for budget purposes, the staff should assume that 1 FTE is equivalent to 1350 productive hours, as reflected in the current 1.6 FTE estimate.

This MOU is covered by the January 15, 1997, MOU between NRC and DOE on "Cooperation in Support of Significant Projects and Activities." The January 15, 1997, MOU established the following funding policy: "NRC generally will not participate in projects and activities pertaining to DOE's responsibilities unless Congress appropriates resources to NRC for such activities. Exceptions will be considered by NRC on a case-by-case basis and only if DOE reimburses NRC for its full agency cost."

In SECY-95-012, "Reimbursement for Work Performed for Other Agencies," the Commission established a policy of charging full Agency costs in performing work for others that is not a part of NRC's statutory mission and for which NRC receives no appropriations. Recovery of full costs requires charging the license fee rate in effect at the time the work is performed to recover direct salary, benefits, travel, and an appropriate share of Agency overhead costs. Full-cost recovery also requires charging for direct contractual support costs.

DISCUSSION:

The staff has provided, for the Commission's review, the attached draft MOU and draft IA. The MOU and IA are the result of a cooperative effort between DOE-ID and NRC technical, financial, and general counsel staffs. The MOU establishes a basic framework for NRC to provide technical assistance to DOE-ID in regard to its treatment of wastes and tank closure activities at the Idaho National Engineering and Environmental Laboratory, specifically -- DOE-ID's incidental waste determination that SBW may be managed as TRU, and that the tanks and residual waste in the tanks may be managed as low-level waste. The IA implements the MOU, providing for NRC to be reimbursed for its full costs.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections. The OCFO has also reviewed the paper and concurs.

RECOMMENDATION:

Unless otherwise directed by the Commission within 10 days, the staff plans to sign the attached MOU and IA. Although we consider this action to be within the delegated authority of the Director, Office of Nuclear Material Safety and Safeguards, action will not be taken until the staff requirements memorandum is received.

/RA/

William D. Travers
Executive Director
for Operations

Attachments:

1. Memorandum of Understanding
2. Interagency Agreement

**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 States 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

For the Nuclear Regulatory Commission

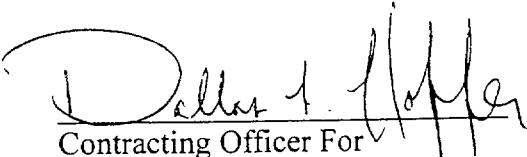


Assistant Manager For
Environmental Management,
DOE-ID

5-28-01
Date

Director, Office of Nuclear Material
Safety and Safeguards, NRC

Date



Contracting Officer For
DOE-ID

5-24-01
Date

**Funds-Out Interagency Agreement
General Provisions/Requirements**

- a. Purpose. The purpose of this Interagency Agreement (IA) between the U.S. Department of Energy (DOE) and the U.S. Nuclear Regulatory Commission (NRC) is to implement the Memorandum of Understanding (MOU) dated _____, 2001 for the NRC to provide technical assistance to DOE in regard to DOE's incidental waste determinations for the Idaho National Engineering and Environmental Laboratory.
- b. Incurrence of Costs. The Recipient/Performing Agency is not authorized to expend or commit funds in excess of the amount obligated. If it is anticipated that the funds provided by this Agreement will be insufficient to complete the work requirements, the written approval of the DOE Contracting Officer must be obtained prior to the incurrence of costs in excess of the amount provided. Costs will be billed in accordance with NRC policy for charging full costs for reimbursable work. NRC policy requires charging for direct staff time based upon the hourly rate as established in 10 CFR Part 170, in addition to any contractor or foreign travel costs incurred in order to perform services specified in the Statement of Work.
- c. Duration, Termination, and Modification of the Agreement. This Agreement shall remain in effect from the date of execution until the end of the performance period, unless it is terminated by mutual agreement or by written notice of either party submitted at least 30 days in advance of the termination. In the event of such termination the Recipient/Performing Agency shall be reimbursed, to the extent permitted, for obligations actually incurred to the effective date of the termination and for commitments extending beyond the effective date of termination to a date not later than the date upon which the Agreement would have expired if not terminated under this paragraph, which the Recipient/Performing Agency, in the exercise of due diligence, is unable to cancel. Payments under this Agreement, including payments under this article shall not exceed the amount(s) committed under this Agreement. This Agreement may be modified at any time by the mutual agreement of both DOE and NRC.
- e. Patents and Technical Data. Disposition of rights to inventions made in any contract, grant or cooperative agreement under this Agreement with any small business firm or domestic nonprofit organization will be in accordance with 35 U.S.C. 200-212. In all other contracts, grants or cooperative agreements under this Agreement, the Recipient/Performing Agency shall coordinate the disposition of rights to inventions with the DOE Patent Counsel. In both cases, the agency shall obtain for DOE substantially the same rights in data as those set forth in DOE's acquisition and assistance regulations when requested by DOE or as deemed appropriate by the agency.
- f. Issue Resolution. Unless otherwise indicated below, it is expected that programmatic guidance will be handled through discussions between the staff of the Recipient/Performing Agency's Program Director listed on the Face Page, item 2.c., and the DOE Program Manager, Face Page Item 11. Any administrative issues including billing questions, unresolved items or issues requiring a formal change to this Agreement shall be addressed to the DOE Contracting Officer, Face Page, Item 12.

g. Payment.

- (1) DOE authorizes the Recipient/Performing Agency to expend funds in adherence to the requested work and/or deliverables cited herein. DOE's preferred method for reimbursing the Recipient/Performing Agency is via the On-Line Payment and Collection (OPAC) system. Each OPAC charge must clearly make reference to DOE's IA No. cited in block 3.a. If OPAC is not a satisfactory billing method, a mutually agreeable alternative should be negotiated before acceptance of this Agreement.

NRC Billing Information

Agency Location Code: 31-00-0001
NRC Point of Contact: Thalia Stevenson
Telephone: (301)415-6093

ID Finance (OPAC) Contact

Agency Location Code: 89001302
CID No. (TBD)
DOE-ID Point of Contact: Terry Patterson, Finance Division
Telephone: (208)526-9017

ID Budget Contact

Patricia Alexander, Budget Division
Telephone: (208)526-9943

- (2) When applicable, vouchers for payments will be submitted on the agreed upon form.
- (3) When applicable, any funds obligated by DOE which are expected to remain beyond the original period of performance for a project which is incomplete, or for which there is an increased scope of work, will remain available to the Recipient/Performing Agency if the Agreement is amended by the DOE to extend the period of performance for the work beyond the original completion date. Request for such time extensions should be made to the DOE by the Recipient/Performing Agency at least 30 days prior to the end of the performance period.
- (4) When applicable, any funds obligated by DOE for a continuing project remain available for the entire performance period of the project, unless there is a date specified as a required completion date after which no further funds shall be expended. Any DOE funds remaining unexpended at the conclusion of performance of all tasks under this Agreement shall be returned promptly to DOE.

h. Other Provisions.

- (1) Limitation of Funds: Pursuant to this clause entitled "Limitation of Funds," \$200,000 is obligated initially and made available for payment of allowable costs to be incurred from the effective date of this interagency agreement through the period estimated to end December 31, 2002. The remaining \$240,000 will be made available through subsequent modifications to this interagency agreement, subject to the availability of funds in accordance with MOU section (2) c) Program Funding.
- (2) The NRC shall notify the Contracting Officer, in writing within 45 days, whenever it has reason to believe that the costs incurred will meet or exceed 75 percent of the total amount allocated to this interagency agreement.

i. Statement of Work

The Statement of Work is attached as Attachment A.

j. Reporting Requirements

The NRC shall submit a financial report on a quarterly basis. Details shall be included on work completed and costs. One copy of each report shall be submitted to the DOE Contract Administrator (Face page, Item 1.b.), and one copy shall be submitted to the DOE Program Officer (Face page, Item 11).

k. 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.

**STATEMENT OF WORK
FROM THE
U.S. DEPARTMENT OF ENERGY
IDAHO OPERATIONS OFFICE
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

1.1 Background

The U.S. Department of Energy (DOE) Idaho Operations (ID) has established a program for emptying the remaining waste from eleven high-level waste (HLW) storage tanks at the Idaho National Engineering and Environmental Laboratory (INEEL) Tank Farm Facility (TFF), treating the waste, and closing the TFF tanks. DOE Order 435.1, *Radioactive Waste Management*, and DOE Manual 435.1-1, *Radioactive Waste Management Manual*, address the management of radioactive waste including low level waste (LLW), transuranic (TRU) waste, and HLW. DOE Manual 435.1-1 also discusses the process for making a waste incidental to reprocessing (WIR) determination on waste that has been associated with HLW processing. DOE-ID will attempt to demonstrate through the WIR determination by evaluation process, specified in DOE Manual 435.1-1, that the 1.3 million gallons of sodium-bearing waste (SBW) are WIR and can be managed as TRU waste and that residuals remaining in the tanks after closure are WIR that can be managed as LLW. The implementation guide for use with DOE Manual 435.1-1 states that "...consultation with the NRC staff related to compliance with the evaluation requirements is strongly encouraged." DOE-ID requests consultation and review from the U.S. Nuclear Regulatory Commission (NRC) on these WIR determinations.

1.2 Description of the WIR Documents

The SBW WIR Determination document and the TFF Residual WIR Determination document will provide the record for these WIR determinations. Each document will contain general information about the INEEL and an introduction to the regulatory requirements for the WIR determination process. The documents will present the source and description of the waste, the technical basis for conformance to the WIR process, conclusions about protection of the public and the environment, and the basis for document approval. Each WIR document will include appendices of supporting

data. The TFF Residual WIR document will contain a summary of the TFF Performance Assessment (PA), including the ground water model that was used for the PA.

2 Description of Work to be Performed

- 2.1** The NRC will provide technical assistance and advice to DOE-ID regarding DOE-ID's determination of SBW as incidental waste to be managed as TRU waste. Specifically, the NRC will perform a technical review of the final draft of the DOE-ID WIR Determination for SBW to assess whether the waste has been processed, or will be processed, to remove key radionuclides to the maximum extent that is technically and economically practical. At the conclusion of these review activities, the NRC will provide a final report to DOE-ID to document its conclusions.
- 2.2** The NRC will provide technical assistance and advice to DOE-ID regarding DOE-ID's determination of the residual wastes from tank closure activities as incidental waste to be managed as LLW. Specifically, the NRC will perform a technical review of the final draft of the DOE-ID WIR Determination for residual tank farm waste. The NRC will assess whether the determination has sound technical assumptions, analysis, and conclusions with regard to protecting the public health and safety and the environment. At the conclusion of these review activities, the NRC will provide a final report to DOE-ID to document its conclusions.
- 2.3** The NRC and DOE-ID will work together to develop an overall schedule for accomplishing specific activities under this Interagency Agreement.
- 2.4** Additional tasks may be identified throughout the course of implementing the Agreement.