November 15, 2001

MEMORANDUM TO: Barbara D. Meehan, Contracting Officer
Contract Management Branch No. 2
Division of Contracts and Property Management, ADM

FROM: Deborah A. DeMarco
CNWRA Deputy Program Manager
Program Management, Policy Development
and Analysis Staff, NMSS

SUBJECT: FINAL GUIDANCE FOR THE DEVELOPMENT OF FISCAL YEAR (FY) 2002 CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES (CNWRA) OPERATION PLANS FOR EFFORTS UNDER CONTRACT NO. NRC-02-97-009

The President signed into law the Energy and Water Development Appropriations Act, 2002 on November 12, 2001. Accordingly, the Center is hereby directed to finalize their FY 2002 Operations Plan for the Division of Waste Management Repository Program and the Center technical assistance projects related to the Nuclear Waste Policy Act based on the FY 2002 budget information, and subsequent technical revisions. Each division is discussed below separately.

DIVISION OF WASTE MANAGEMENT REPOSITORY PROGRAM

The Center should be directed to use the guidance provided by letters dated July 28, 2001, from Barbara Meehan, Division of Contracts to Wes Patrick, President, Center and September 28, 2001. The HLW Repository Program should be constrained to $14.2M with approximate carryover of $2.0M.

The FY 2002 Budget is as follows:

New Contract Support Funds for Center:	$ 14.2M*
Est. FY 2001 HLW Carryover Funds:	$ 2.0M
Total Funds available for HLW Repository Program in FY 2002	$ 16.2M**

* This figure is based on a $23.7M NWF appropriation.

** The Center's FY 2002 Operations Plans should reflect anticipated spending of $14.2M. This allows two months of contingency funds based on the FY 2001 spending rate.

The Center is hereby directed to use the attached guidance to develop the HLW Repository Program FY 2002 Operations Plans. This attachment "Key Technical Issues (KTIs) Priorities and Resources," identifies the work to be performed under each KTI, the type of milestones, projected completion dates for activities and priority for each, and the estimated level-of-effort. The Center Operations element does not have a table, however, the activities include: management and staffing, internal quality assurance and Licensing Support Network activities. Please note that the Major Milestone "FY 2002 CNWRA Operations Plans" should be due three weeks from the date of receipt of final guidance letter. Also, Major Milestone "FY 2003 CNWRA Operations Plans" should be due September 30, 2002. Please add the following language under "Mandatory Requirements for Internal Quality Assurance": "Since Part 63 has been issued, the quality assurance requirements of Appendix B to10 CFR Part 50 are no longer be applicable. Reference should be made to the quality assurance requirements contained in Subpart G to10 CFR Part 63 and to the provisions contained in NQA-1-1986."

CONTACT: Deborah A. DeMarco, PMDA
301-415-7796

Input for the External Quality Assurance Program Element:

The Center shall provide support to participate as observers in QA audits. In addition, the Center will provide a written report to NRC with 10 working days after the observation audit is complete. At the audit observation exit briefing, the Center observers shall, separately or jointly, provide the NRC observation team leader an outline or draft text of their observations. The Center observers shall receive training on NRC Manual Chapter MC 2410, "Conduct of Observation Audits, dated July 12, 2000." Please add this major activity under Milestone No. 1100.

Please delete Milestone 1120, "Support Yucca Mountain Inspection Program." This is now a new program element.

Finally, do not include a technical approach or spending plan for the Department of Energy's Aluminum Based Spent Nuclear Fuels Disposition Program in the CNWRA Operation Plans for FY 2002. This effort has been completed and is in the process of being closed out.

SPENT FUEL PROJECTS

The Center should be directed to use the guidance provided in the July 28, 2001 and September 28, 2001 letter from Barbara Meehan to Wes Patrick as final technical guidance for the development of the FY 2002 Operations Plans for the NWPA-related projects. Since issuance of those letters a Program Element Plan, entitled, "Assistance in the Review of a Safety Analysis Report Submitted on Behalf of the Department of Energy - Idaho Operations Office for an Independent Spent Fuel Storage Installation" has been prepared. It is recognized that this effort was included in the FY 2001 Operations Plan, however, a more detailed Statement of Work is now provided as Attachment 2.

New FY 2002 Contract Support Funds for CNWRA PFS	$ 400K
` Actual FY 2001 PFS Carryover Funds	$ 189K
Total funds available for FY 2002	$ 589K
New FY 2002 Contract Support Funds for CNWRA DOE/INEEL Anticipated to commence in December 2001	$ 200K
New FY 2002 Contract Support Funds for CNWRA Diablo Anticipated to commence in December 2001	$ 200K
New FY 2002 Contract Support Funds for CNWRA Humboldt Anticipated to commence in July 2002	$ 100K

As part of the revision process, the Center is requested to carefully evaluate the time required to complete FY 2002 activities. In establishing schedules for both major and intermediate milestones, consideration should be given not only to the current staffing projected in the staffing plan, but to the NRC priorities for the current work and new work to be placed under the Center's charter. The Center's work priorities are as follows: (1) HLW repository efforts; (2) SFPO efforts, recognizing the March 5, 1999, NRC CNWRA Management Meeting Agreement, which stated that SFPO would provide 30 days prior notification to the CNWRA regarding schedules for the Atomic Safety and Licensing Board (ASLB) hearings related to PFS, LLC. The CNWRA would provide the Director, Division of Waste Management (DWM) with an analysis of impact to the HLW repository program; and (3) all Industrial Mobilization Exception and work for others. However, even with the aforementioned Center program prioritization, the Center should discuss any problems with meeting NRC's requirements on any work currently being performed with the Director, DWM. There may be milestones on other Center efforts that need to be met and where work on HLW Repository Program can be delayed. Administrative Items can be used. However, they are not contractual deliverables and should not be used in place of intermediate or major milestones. Administrative items are materials submitted for the purpose of tracking progress and providing oversight of the Center's activities on a task. Center Element Managers are encouraged to work with their NRC counterparts to ensure a thorough understanding of NRC requirements.

The CNWRA should be requested to submit their final FY 2002 Operations Plans to NRC on or before December 10, 2001. It has been determined that there has been sufficient up-front interaction between NRC and the Center to eliminate the Center briefing on the final FY 2002 Operations Plans, for NRC management and staff in Rockville, Maryland, normally provided after submission of the Plans to NRC. However, if the Center identifies the need to make significant changes to this guidance, or would like to highlight any issues concerning the final Operations Plans, these may be discussed at the next NRC Center Review Group Meeting to be held at NRC headquarters in Rockville, Maryland on December 18, 2001, or sooner if deemed necessary.

cc: J. Linehan

Attachments: as stated
1. Revised Key Technical Issues Tables
2. Program Element Plan - “Assistance in the Review of a Safety Analysis Report Submitted on Behalf of the Department of Energy - Idaho Operations Office for an Independent Spent Fuel Storage Installation.”

providing oversight of the Center's activities on a task. Center Element Managers are encouraged to work with their NRC counterparts to ensure a thorough understanding of NRC requirements.

The CNWRA should be requested to submit their final FY 2002 Operations Plans to NRC on or before December 10, 2001. It has been determined that there has been sufficient up-front interaction between NRC and the Center to eliminate the Center briefing on the final FY 2002 Operations Plans, for NRC management and staff in Rockville, Maryland, normally provided after submission of the Plans to NRC. However, if the Center identifies the need to make significant changes to this guidance, or would like to highlight any issues concerning the final Operations Plans, these may be discussed at the next NRC Center Review Group Meeting to be held at NRC headquarters in Rockville, Maryland on December 18, 2001, or sooner if deemed necessary.

cc: J. Linehan
Attachments:
1. Revised Key Technical Issue Tables
2. Program Element Plan - "Assistance in the Review of a Safety Analysis Report Submitted on Behalf of the Department of Energy - Idaho Operations Office for an Independent Spent Fuel Storage Installation."

DISTRIBUTION:

Central Files\ADAMSNMSS R/F		PMDA R/F	EWhitt	WReamer	LCampbell
JTrapp	PJustus	B Leslle	TAhn	JPohle	MNataraja
LWright	NColeman	DBrooks	JBradbury	SWastler	JKotra
JCiocco	TMcCartin	NColeman	MWaters	SBaggett	RHall
MShah	MDelligatti	WBrach	SShankman	KLong	JGreeves
KStablein	MWaters	JFirth	JAnderson	MLee	

G:D0\DEMARCOFY02FINALGUID1114.wpd

OFC	PMDA	DWM	DWM	SFPO				
NAME	DDeMarco* Coordinated with PEM''s	BLeslie W. Dam for	B. Reamer	MDelligatti via e-mail				
DATE	11/ 14 /01	11/ 14 /01	11/14/01	11/ 15/01				

C = COVER E = COVER & ENCLOSURE N = NO COPY
OFFICIAL RECORD COPY

Attachment 2

Program Element Plan for Assistance in the Review of a Safety Analysis Report Submitted on Behalf of the Department of Energy - Idaho Operations Office for an Independent Spent Fuel Storage Installation

1.0 Introduction

This Program Element Plan (PEP) delineates technical assistance activities to be performed by the Center for Nuclear Waste Regulatory Analyses (CNWRA) in support of the Spent Fuel Project Office (SFPO) review of the Safety Analysis Report (SAR) submitted on behalf of the Department of Energy - Idaho Operations Office (DOE-ID), as part of its application for a license to construct and operate a proposed away-from-reactor independent spent fuel storage installation (ISFSI). These activities include the preparation of a Safety Evaluation Report (SER) with respect to 10 CFR Part 72.

2.0 Background

DOE-ID, through a third party, Foster Wheeler Environmental Corporation (FWEC), plans to submit a license application for the construction and operation of an ISFSI at the Idaho National Engineering and Environmental Laboratory (INEEL), near the existing ISFSI licensed for the storage of the TMI-2 fuel. Similar to the option chosen for the TMI-2 fuel and core debris, DOE-ID intends to move spent fuel from current interim storage in spent fuel pools at INEEL into dry storage canisters at this second proposed ISFSI. The proposed facility would store spent fuel from the Peach Bottom Unit 1 High Temperature Gas-Cooled Reactor, the Shippingport Light Water Breeder Reactor, and spent fuel from various TRIGA research reactors. The Peach Bottom Unit 1 spent fuel includes highly enriched uranium and thorium carbide fuel particles in a graphite matrix; the Shippingport spent fuel includes highly enriched uranium and thorium mixed-oxide fuels in ceramic oxides, clad with zirconium or stainless steel; and the experimental TRIGA spent fuel includes highly enriched uranium zirconium hydride, clad in stainless steel, zirconium or aluminum.

DOE-ID estimates that the ISFSI will store roughly 46 metric tons of heavy metal in approximately 36 storage canisters. Although DOE intends to use a standard commercial storage system, the unique and varied characteristics of the fuel types to be stored will require a more detailed review, as was the case for the TMI-2 facility. In addition, the facility will incorporate a dry transfer capability. This proposal is also unique in that DOE will retain FWEC to apply for and hold the license, and to operate the facility. DOE will continue to own the spent nuclear fuel and will be accountable for nuclear indemnification and decommissioning costs.

3.0 Objective

The objective of this activity is to assist the staff in the review of the applicant's SAR, and in the development of an SER and license, including technical specifications, for the proposed facility.

4.0 Level of Effort

The principal investigators represent the technical expertise provided by the contractor and provide technical continuity during the entire review process. They should have professional credentials in the technical areas assigned to them that will qualify them as expert witnesses for testifying at public hearings. They should have a clear understanding of the depth of review generally required by the NRC and specifically required by the type of activity proposed by the applicant for the disciplines they represent. They should also understand the association between the proposed facility and the U.S. geologic repository program.

The reviewers shall be responsible for timely technical review of discrete areas within the entire review effort. Reviews can be performed by any qualified staff member but may be performed by a principal investigator or by the project manager. At a minimum, the major disciplines needed include:

1. Environmental Engineering/Health Physics with experience in accident analysis.
2. Civil/Structural Engineering with experience in seismology.
3. Mechanical Engineering with a concentration in storage cask design.
4. Nuclear Engineering with experience in criticality and shielding design.
5. Nuclear Plant Operations with experience in fuel handling.

The reviewers who perform the actual work shall provide detailed technical records of the methods used to evaluate all aspects of their areas of responsibility. Upon completion of an evaluation, the reviewer or responsible principal investigator shall distill this record to suitable documentation for inclusion in NRC reports. SFPO requires that all reports be provided in both draft and final form.

The level of effort (LOE) for this technical assistance request is estimated to be 0.8 staff-years for fiscal year 2002, 0.8 staff-years in FY 2003, and 0.4 staff-years FY 2004, for a total of 2.0 staff-years.

5.0 Period of Performance

The work on the tasks described in this PEP is anticipated to commence on or about December 1, 2001, and will continue through September 30, 2004.

6.0 Task Description

The contractor shall provide a draft SER, license and technical specifications, based on a thorough review of the SAR. The requirements of 10 CFR Part 72 will dictate the overall scope of the assessment. Specifically, the major areas of review include: site characteristics, principal design criteria; operation systems; structural, thermal, shielding, criticality, and confinement evaluations; radiation protection; accident analysis; and operating controls and limits, including technical specifications. The contractor shall use NUREG-1536 and NUREG-1567 as guidance in making findings for several areas of this review. Due to the unique nature of the spent fuel to be stored at the proposed facility, the contractor shall also identify and recommend appropriate actions for any difficulties and inconsistencies in applying the requirements of 10 CFR Part 72.

The reviewers shall be requested to assist in meetings with the applicant with regard to SAR issues. The reviewers may also be requested to assist in resolving technical comments and providing expert testimony, as necessary.

7.0 Meetings and Travel

For planning purposes throughout the duration of this task, it is expected that there will be frequent coordination meetings between the contractor and NRC staff by telephone or video conference. At the NRC's direction, the contractor shall attend meetings at NRC headquarters in Rockville, MD to plan, coordinate, and resolve issues, and to discuss the progress and status of the work. NRC will fund only those trips that are approved by the NRC Contracting Officer in advance and that are directly related to this project description. For travel use the following assumption: Four trips to NRC Headquarters per year for two persons for a two-day meeting and one or two days as travel days.

8.0 NRC Furnished Materials

NRC will provide the contractor, as appropriate, with copies of NRC's current regulations, guidance documents, storage and transportation cask documents, and other documents identified as pertinent to performing the required work.

9.0 Product/Deliverables Schedules

The following deliverables shall be required from the contractor:

1. Request(s) for Additional Information

Within 90 days of receipt of the SAR, the contractor shall provide the NRC staff with an initial request for additional information (RAI), in the format specified by the NRC staff. This will document additional information needed in order for a determination of compliance with applicable regulatory requirements to be made. If necessary, the contractor will provide a second round of RAIs to the NRC staff 60 days after the applicant’s responses to the first round RAIs are provided to the contractor.

2. Safety Evaluation Report on the SAR

The contractor shall provide its draft SER to the NRC staff, in the format provided by staff, 90 days after the receipt of the response to the final RAI. Staff will review the input and, if necessary, request a final version within 30 days of receipt of the draft. The contractor would then have 21 days to provide final input.

If requested by the staff, the contractor may be required to give a presentation of its work to an NRC peer review group. The presentation will defend contractor evaluations and conclusions that will be submitted in the draft SER. As a result of the presentation, the contractor may be required to provide additional work. The presentation will be given at least 15 days before submittal of final input.

3. Litigation Support

As required by the NRC staff, the contractor shall support the NRC staff by contributing to oral and written testimony for adjudicatory hearings associated with the DOE-ID ISFSI