

## **ATTACHMENT 1**

### **Summary of Activities Related to Reviewing the U.S. Department of Energy Draft Supplemental Environmental Impact Statement and the Draft Nevada Rail Corridor Supplement and Rail Alignment Environmental Impact Statement**

#### **Intermediate Milestones 14002.01.051.820 and 14002.01.051.840**

This report summarizes the approaches that a team of Center for Nuclear Waste Regulatory Analyses (CNWRA) staff, consultants, and subcontractors used to review three Draft Environmental Impact Statements (EIS) prepared by the U.S. Department of Energy (DOE):

- Draft Supplemental EIS for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada (DOE/EIS-0250F-S1D) (Draft Repository SEIS) (DOE, 2007a);
- Draft Supplemental EIS for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada—Nevada Rail Transportation Corridor (Draft Nevada Rail Corridor SEIS) (DOE/EIS-0250F-S2D); and
- Draft EIS for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada (DOE/EIS-0369D) (Draft Rail Alignment EIS) (DOE, 2007b)

DOE published the *Federal Register* notice of availability announcing a 90-day public comment period for these three Draft EISs on October 12, 2007 (72 *Federal Register* 58071-58074).

CNWRA provided technical and programmatic support to the U.S. Nuclear Regulatory Commission (NRC) by reviewing these documents and providing input to the NRC's comments that were furnished to DOE. The reviews were conducted to support NRC in its role as a commenting agency during the public comment period; they did not constitute an adoption review as identified in Section 114(f) of the Nuclear Waste Policy Act, as amended.

### **1. Approach to Conducting the Environmental Review**

Lessons learned in conducting these review will help in preparing the CNWRA environmental review team to later support the NRC's potential Yucca Mountain EIS adoption review identified in Section 114(f) of the Nuclear Waste Policy Act. The Draft Repository SEIS, Draft Nevada Rail Corridor SEIS, and Draft Rail Alignment EIS provided the CNWRA environmental review team with an opportunity to review the types of information that DOE may submit with a license application for a potential repository at Yucca Mountain, Nevada.

## 2. CNWRA Environmental Review Team—Areas of Expertise

The CNWRA environmental review team consisted of individual subject matter experts with technical expertise in each of the 13 resource areas DOE identified in its 2002 final EIS (DOE, 2002). DOE also identified the same 13 resource areas in the Draft Repository SEIS. Some of these resource areas, such as socioeconomics, cultural resources, and biological resources, are outside of the areas of CNWRA staff expertise. In these cases, conflict of interest-free consultants and subcontractors with the necessary expertise were identified and added to the review team (Table 1).

<b>Table 1. Organizational Affiliation of Subject Matter Experts on the CNWRA Environmental Review Team</b>		
<b>Affected Environment Resource Area</b>	<b>CNWRA Staff</b>	<b>Consultant/ Subcontractor</b>
Land Use	X	
Air Quality and Climate	X	X
Geology	X	
Hydrology	X	
Biological Resources and Soils		X
Cultural Resources		X
Socioeconomics		X
Occupational and Public Health and Safety	X	
Noise and Vibration	X	
Aesthetics	X	
Utilities, Energy, and Site Services	X	
Waste and Hazardous Materials	X	
Environmental Justice		X
<b>Additional Areas of Technical Expertise</b>		
Repository Construction, Operation, Monitoring, and Closure	X	
Postclosure Repository Performance	X	
Cumulative Impact Assessment		X
Transportation	X	X
General NEPA Process	X	X

CNWRA staff with experience in preclosure safety assessment and postclosure performance assessment were included on the team to ensure consistency with the ongoing prelicensing interactions with DOE. In addition, staff and consultants familiar with the areas of cumulative impact assessment, transportation, and the National Environmental Policy Act (NEPA) process were identified and added to the team to review the Draft Repository SEIS, Draft Nevada Rail Corridor SEIS, and Draft Rail Alignment EIS. The total team comprised 14 CNWRA staff and 6 consultants and subcontractors.

## 3. National Environmental Policy Act Overview

To ensure that all environmental review team members developed a shared understanding of the NEPA process and the purpose of reviewing the Draft Repository SEIS, Draft Nevada Rail Corridor SEIS and Draft Rail Alignment EIS, the CNWRA principal investigator provided two separate NEPA overview sessions before the DOE notice of availability was published. These

half-day sessions were coordinated with the NRC program element manager and provided to environmental review team members in July and August 2007. In addition, a brief overview of the NRC adoption review process was provided to NRC and CNWRA staff during a Yucca Mountain team meeting in September 2007. This overview was also provided in September 2007 to senior NRC management as part of the status report on the preparations for the adoption review.

#### **4. Site Visits to Provide Familiarity With the Affected Environment**

All members of the review team participated in site visits to Yucca Mountain and the Caliente Rail Corridor in either November 2005 or October 2007. The purpose of these trips was to familiarize members of the environmental review team with the affected environment along the proposed Nevada Rail Corridor and around the potential Yucca Mountain repository. The 3-day trips consisted of off-road travel along the proposed Nevada Rail Corridor, starting at the eastern terminus in Caliente, Nevada and proceeding to the other terminus at Yucca Mountain. Members of the environmental review team took DOE staff and contractor-led tours of the exploratory studies facility and the north portal on the eastern side of Yucca Mountain.

#### **5. Conducting the Review**

Environmental review team members received copies of DOE's reports on October 12, 2007 (DOE, 2007a,b) through links to the DOE Office of Civilian Radioactive Waste Management website. The review team members were also provided with review assignments, a schedule, and general guidance for providing comments. All team members reviewed the executive summary and pertinent sections of Chapters 1 (Purpose and Need for Agency Action) and 2 (Proposed Action and Alternatives) for an overall perspective for the review.

The CNWRA principal investigator collected all CNWRA environmental review team comments. To allow sufficient time for NRC internal concurrence reviews within the 90-day public comment period, the reviewers were asked to complete their reviews by November 12, 2007.

During the week of November 12–16, 2007, a subset of the CNWRA environmental review team worked with the NRC staff to consolidate the comments identified by the CNWRA and NRC environmental review teams, remove redundancies, and establish an overall consistency in the format and level of detail for the comments.

#### **6. Follow-Up Activities**

The CNWRA environmental review team members will continue to review the Draft Repository SEIS (DOE, 2007a) and the Draft Nevada Rail Corridor SEIS and Draft Rail Alignment EIS (DOE, 2007b) to enhance the efficiency of NRC's potential adoption review of the DOE environmental impact statements. CNWRA team members identified areas where the approach used to review the draft documents may be improved. These self-identified areas for improvement will inform NRC's development of an effective process for an EIS adoption determination review.

The public comment period for the Draft Repository SEIS (DOE, 2007a) and the Draft Nevada Rail Corridor SEIS and Draft Rail Alignment EIS (DOE, 2007b) ended on January 10, 2008. It is anticipated that DOE will issue the final EISs in mid 2008. If DOE submits final EISs, the

CNWRA environmental review team will conduct its reviews to support the NRC adoption review determination.

## **7. Summary**

The CNWRA established an environmental review team comprising about 20 subject matter experts to review the Draft Repository SEIS (DOE, 2007a) and the Draft Nevada Rail Corridor SEIS and Draft Rail Alignment EIS (DOE, 2007b) that DOE issued for a 90-day public comment period on October 12, 2007. These reviews supported the NRC in its role as a commenting agency during the public comment period. The reviews did not constitute an adoption review as identified in Section 114(f) of the Nuclear Waste Policy Act.

To prepare for this review, the members of the CNWRA environmental review team

- Received NEPA overview training;
- Participated in site visits to become familiar with the affected environments along the rail corridor and near Yucca Mountain; and
- Received staff review assignments, a schedule, and general guidance for providing comments.

To meet NRC's schedule for complying with DOE's 90-day public comment period, individual CNWRA environmental review team members completed their reviews by November 12, 2007. A writing session was held from November 12–16, 2007 to:

- Consolidate the comments the CNWRA and NRC environmental review teams identified;
- Remove redundancies; and
- Establish an overall consistency in the format and level of detail for the comments.

After the review, CNWRA team members identified areas where the approach used to review the draft documents may be improved. These self-identified areas for improvement will inform NRC's development of an effective process for an EIS adoption determination review. Center staff will also continue to review the Draft Repository SEIS and the Draft Nevada Rail Corridor SEIS and Draft Rail Alignment EIS to enhance efficiency as the team members prepare to support the NRC's potential EIS adoption review as identified in Section 114(f) of the Nuclear Waste Policy Act.

## **8. References**

DOE. "Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada." DOE/EIS-0250F. North Las Vegas, Nevada: DOE, Office of Civilian Radioactive Waste Management. 2002.

DOE. "Draft Supplemental Environmental Impact Statement (EIS) for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada." DOE/EIS-0250F-S1D. Las Vegas, Nevada: DOE, Office of Civilian Radioactive Waste Management. 2007a.

DOE. "Draft Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada—Nevada Rail Transportation Corridor and Draft Environmental Impact Statement for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada." DOE/EIS-0250F-S2D/DOE/EIS-0369D. Las Vegas, Nevada: DOE, Office of Civilian Radioactive Waste Management. 2007b.