



**Department of Energy**  
Office of Civilian Radioactive Waste Management  
Yucca Mountain Site Characterization Office  
P.O. Box 30307  
North Las Vegas, NV 89036-0307

QA: N/A

FEB 25 2000

OVERNIGHT

Mr. Robert R. Loux  
Executive Director  
Agency for Nuclear Projects  
State of Nevada  
Evergreen Center, Suite 252  
1802 North Carson Street  
Carson City, NV 89701

**RECEIVED**

FEB 25 2000

NUCLEAR WASTE PROJECT OFFICE

Dear Mr. Loux:

This is in reply to your July 30, 1999, letter seeking further clarification from the U.S. Department of Energy (DOE) regarding the transportation-related activities you proposed to be funded by fiscal year (FY) 1999 Energy and Water Development Appropriations Act funds, and your October 28, 1999, letter forwarding your program plan for FY 2000. We apologize for the lengthy delay in responding to your July 30 letter.

**FY 1999 FUNDING**

The FY 1999 appropriations act limits use of funds by the State solely "to conduct scientific oversight responsibilities pursuant to the Nuclear Waste Policy Act of 1982, . . ." As stated in my April 21, 1999, letter, we interpret this phrase to impose two conditions on the expenditure of funds. First, any funded activities must be in furtherance of your oversight responsibilities under the Nuclear Waste Policy Act. We have interpreted "oversight responsibilities" to be those that fall within section 116(c)(1)(B)(i), (iii), (iv), and (v). As discussed in Nevada v. Herrington (827 F.2d 1394, 1398)(9th Cir. 1987), funded activities must be activities authorized by section 116(c)(1)(B), 116(c)(2)(A) or 117(c) of the Nuclear Waste Policy Act. Section 116(c)(1)(B)(ii) and section 116(c)(2)(A) are excluded because they authorize funds related to impact assistance. Because we have never executed an agreement under section 117, that section does not apply here.

Second, the activity being overseen must be scientific in nature. As stated in my April 21, 1999, letter, we interpret "scientific" work to mean work that investigates or studies nature and the physical world and that relies on and applies the systematized knowledge of such disciplines as

zoology, botany, chemistry, physics, or geology, i.e., the natural sciences. An activity is not necessarily "scientific" merely because it employs scientific methods or computer models. Rather, the activity itself must focus on one of the natural sciences. For example, a study of the metallurgical characteristics of a cask design would be scientific, while a highway engineering or routing study relating to the transportation of such casks would not be scientific, because metallurgy is a natural science, while highway engineering and routing are not.

We believe that both these conditions must be met. For example, review of the Draft Environmental Impact Statement (DEIS) may be an oversight responsibility. However, review of transportation routes or socioeconomic impacts analyzed in the DEIS is not oversight of a scientific activity and, therefore, is not an appropriate use of federal funds.

After applying our interpretation, we have determined that the following activities described in your July 30, 1999, letter do not appear to qualify for reimbursement, based on the information you have provided:

1. Technical analysis of projected spent nuclear fuel (SNF) and high-level waste (HLW) shipments by mode and route, because the activity appears to focus on methods of conveyance and highway routing, rather than the natural sciences.
2. Technical analysis of U.S. Nuclear Regulatory Commission (NRC) regulations governing packaging and transportation of radioactive materials, because it appears to focus on risk assessment analysis, which is not scientific work except to the extent it involves the preparation of a natural science study (see discussion on reimbursable activities below).
3. Technical analysis of NRC regulations governing physical protection of plants and materials, because it appears to focus on risk assessment and human factors and not natural science.
5. Technical analysis of potential domestic terrorist threats in Nevada, because it appears to focus on risk assessment and human factors and not natural science.
6. Scientific literature survey on human error factors in recent severe rail and truck accidents, because it appears to focus on risk assessment and human factors and not natural science.
7. Technical analysis of maximum severe credible SNF accident scenarios, because it appears to focus on risk assessment and human factors and not natural science.
8. Technical evaluation of potential high probability consequence rail accident locations, because this activity appears to focus on risk assessment and rail engineering and routing, rather than the natural sciences.

9. Initial technical analysis of computer models used by DOE and NRC to assess SNF/HLW transportation radiological risk and accident/incident consequences, because it appears to focus on the application of computer models to the likelihood of transportation accidents caused by human factors, engineering, or routing activities, and does not appear to focus on natural science.

After applying our interpretation, we have determined that the following activity described in your July 30, 1999, letter qualifies for reimbursement:

4. Technical analysis of high-capacity, dual-purpose (storage/transport) rail cask designs, because it appears to be focused on natural science studies, such as metallurgy.

In addition, certain discrete activities within the categories, for which reimbursement has been denied, may qualify for reimbursement if you present documentation showing that the work activity is the oversight of scientific work. Specifically, in category number 2, reimbursement may be available to the extent it involves the oversight of a natural science component of NRC packaging and transportation regulations.

In your July 30, 1999, letter, you also asked for clarification with respect to the use of the "federal Energy and Water Development fund" for three additional categories of activities. Because we cannot analyze the propriety of a particular expenditure unless we know what appropriations act applies, we cannot respond to that portion of your letter. However, because some of those activities have been included in your FY 2000 Program Plan, a response to the propriety of using FY 2000 federal funds for those activities as described in your FY 2000 Program Plan is included in the analysis provided below. Furthermore, we note that the category described as National Transportation Analysis Activities could involve multi-state coalition building, which is prohibited by the FY 2000 appropriations act.

#### FY 2000 FUNDING

The FY 2000 Energy and Water Development Appropriations Act contains the same limitation as the FY 1999 Appropriation Act that the State may use the funds solely for the conduct of "scientific oversight responsibilities." Therefore, we have applied the same interpretation of "scientific oversight responsibilities" to your FY 2000 Program Plan.

We have determined that the following activities in your FY 2000 Program Plan appear to be allowable because they relate to the natural sciences and to your oversight responsibilities under section 116 of the Nuclear Waste Policy Act: 2.1 Geology; 2.2 Hydrology; 2.5 Independent Geochemistry Study of Proposed Waste Package; 2.6 Yucca Mountain Health Effects Monitoring; and 2.7 Independent Studies on Hydrothermal Fluids in Yucca Mountain.

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Mr. Robert R. Loux

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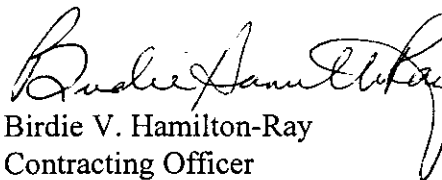
With respect to 2.4 Environmental Oversight, we have determined that activities related to the natural sciences would be allowable. However, activities related to socioeconomic impacts, transportation modes and routing, or engineering would not be allowable.

The activities described in 2.3 High-Level Waste Transportation Risk and Impact Assessment appear, for the most part, to focus on risk assessment and human factors, engineering, and transportation modes and routing rather than natural science and thus would not be allowable. However, to the extent these activities involve natural science studies such as a metallurgical analysis of a cask, these studies would be allowable.

Unlike last year, the DOE is directed in the FY 2000 Appropriations Act to provide you funding through direct payment rather than by reimbursement. As you know, the direct payment method does not eliminate the need for DOE approval of your program plan prior to the expenditure of funds or relieve you of your obligation to maintain documentation to substantiate to the Single Audit Act auditors that the funds have been expended in accordance with federal law.

If you have any questions regarding this letter, please contact me at (702) 794-5586.

Sincerely,



Birdie V. Hamilton-Ray  
Contracting Officer

cc:

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