

## **Section 180(c) of the Nuclear Waste Policy Act: Update and Expectations - 9386**

F. Moussa, L. Finewood, J. Offner  
U.S. Department of Energy  
Office of Civilian Radioactive Waste Management  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

E. Helvey  
JK Research Associates, Inc.  
4103 Greens Place  
Longmont, CO 80503

### **ABSTRACT**

This paper provides an update regarding the Department of Energy (DOE) Office of Civilian Radioactive Waste Management's (OCRWM) plans for implementation of Section 180(c) of the Nuclear Waste Policy Act of 1982, as amended (NWPA). DOE is required by Section 180(c) of the NWPA to provide technical assistance and funds for training of local public safety officials to States and Tribes through whose jurisdictions DOE plans to transport spent nuclear fuel (SNF) and high-level radioactive waste (HLW) to the proposed repository at Yucca Mountain, Nevada. Section 180(c) training is to cover procedures for safe routine transportation of these materials, as well as procedures for addressing emergency response situations. DOE issued for public comment a revised proposed policy for implementing Section 180(c) on October 31, 2008 ([73 FR 64933](#)).

### **INTRODUCTION**

Under the Nuclear Waste Policy Act of 1982, as amended (NWPA), DOE is responsible for the transportation of spent nuclear fuel (SNF) and high-level radioactive waste (HLW) to a NWPA-authorized facility. Section 180(c) of the NWPA requires DOE to provide technical and financial assistance for training of local public safety officials to States and Tribes through whose jurisdiction the Secretary plans to transport SNF and HLW to the proposed repository at Yucca Mountain, Nevada. Section 180(c) further provides that such training cover procedures required for both safe routine transportation of these materials and for dealing with emergency response situations. In addition, Section 180(c) identifies the Nuclear Waste Fund as the source of funds for this assistance.

DOE's Office of Civilian Radioactive Waste Management has taken several steps toward fulfilling this obligation. Most recently, in both 2007 and 2008, OCRWM published *Federal Register* notices setting forth the agency's revised proposed policy for implementing Section 180(c). DOE published a notice on July 23, 2007 (the 2007 notice) ([72 FR 40139](#)) to set forth and communicate to stakeholders the revised proposed policy by which DOE currently intends to implement Section 180(c). In the 2007 notice, DOE stated that it had recently begun meeting with Tribes to discuss the funding allocation options for grants to Tribes and that the proposed funding allocation approach described therein would apply only to States. The notice that DOE published on October 31, 2008 (the 2008 notice) ([73 FR 64933](#)) updated the 2007 notice by providing the funding allocation approach for grants to federally recognized Tribes which may be eligible for assistance under Section 180(c) and also included minor changes for clarification to the policy as it applies to both States and Tribes. Both notices requested public comments on the revised proposed policy.

Subject to the availability of appropriated funds, DOE plans to conduct a pilot program for Section 180(c) grants. DOE will evaluate public comments received on the 2007 notice and the 2008 notice prior to implementing the pilot program. After reviewing the comments received on the notices of revised proposed policy and completion of the pilot program, DOE plans to issue a new revised proposed policy for public comment and thereafter to issue a final policy prior to awarding the first 180(c) grants. The first grants are planned to be issued approximately four years prior to the commencement of shipments through a State or Tribe's jurisdiction to support assessing the need for and planning for training.

OCRWM's *Strategic Plan for the Safe Transportation of Spent Nuclear Fuel and High-Level Radioactive Waste to Yucca Mountain: A Guide to Stakeholder Interactions* calls for DOE to work closely with State Regional Groups and individual impacted States and Tribes as it makes operational decisions regarding shipments to a NWPA-authorized facility. DOE's practice of involving States, Tribes, industry, utilities, and other interested parties in transportation planning has contributed to a decades-long record of safely transporting such material. The revised proposed policy for implementing Section 180(c) supports DOE's objective to develop and begin implementation of a comprehensive national spent fuel transportation plan that accommodates State, local, and Tribal concerns and input to the greatest extent practicable.

## **SUMMARY OF THE REVISED PROPOSED POLICY**

The revised proposed policy addresses the provision of technical and financial assistance for training, both for normal transportation operations and for potential incidents that may require emergency response during shipments of spent nuclear fuel or high-level radioactive waste to a NWPA-authorized facility. Technical assistance to support Section 180(c) activities will consist of non-monetary assistance that the Secretary of Energy can provide from DOE's specific knowledge, expertise, and existing resources to aid training of public safety officials on procedures for safe routine transportation and for emergency response situations during the transport of spent nuclear fuel and high-level radioactive waste to a NWPA-authorized facility. Technical assistance includes, but is not limited to, access to DOE's regional and Headquarters representatives involved in the planning and operation of NWPA transportation or emergency preparedness activities, provision of information packets that include materials about the OCRWM Program and shipments, and provision of other training materials and information. Financial assistance will consist of assessment and planning grants and annual training grants. The provision of grants will be subject to the criteria described in the revised proposed policy, as well as the availability of appropriated funds.

The revised proposed policy is consistent with DOE's longstanding commitment to meet or exceed requirements and standards applicable to the transport of spent nuclear fuel and high-level radioactive waste; to cooperate with States, Tribes, and local governments; and to make use of the existing expertise of States, Tribes, and local governments to the maximum extent practicable.

Section 180(c) funds are intended to be used for training specific to shipments of SNF and HLW to a NWPA-authorized facility. DOE will work with States and Tribes to evaluate current preparedness for safe routine transportation and emergency response capability and will provide funding as appropriate to help State, Tribal, and local officials prepare for OCRWM shipments. Section 180(c) funds and related training are intended to supplement but not duplicate existing training for safe routine transportation and emergency preparedness. DOE will work with States and Tribes to coordinate and integrate Section 180(c) activities with existing training programs designed for State, Tribal, and local public safety officials. Equipment purchased with Section 180(c) funds is intended to be used for training to prepare for the specific hazards presented by shipments to a NWPA-authorized facility. If necessary, such equipment could then be used for inspections and for responding to emergencies. Since State and Tribal governments have primary responsibility to protect the public health and safety in their jurisdictions, they will have

flexibility to decide which allowable activities to request Section 180(c) assistance to meet their unique needs within the limits of the NWPA and DOE and other Federal financial assistance regulations and restrictions.

Training with Section 180(c) funds should be to the level of detail and to the degree necessary to prepare for shipments to a NWPA-authorized facility. When necessary or appropriate, training should be consistent with the Occupational Safety and Health Administration (OSHA) awareness or operations levels, as those terms are defined in [29 CFR 1910.120](#), and the jurisdiction's emergency response plans. Any deficiency in basic emergency response capability may be addressed through consultation and technical assistance.

DOE will implement Section 180(c) by funding direct grants to eligible States and Tribes. Applications will only be accepted through the Federal Government's electronic grant application system at <http://www.grants.gov>.

## **GRANT FUNDING ALLOCATION FOR STATES AND TRIBES**

DOE expects to make two grants available to eligible States and Tribes: an assessment and planning grant and an annual training grant.

The assessment and planning grant to each eligible State and Tribe will support a needs assessment to identify training needs that might be addressed in future training grants to that State or Tribe. The amount of the assessment and planning grant is not expected to exceed \$200,000, adjusted annually for inflation, for each eligible State and Tribe based on appropriated funds available for that purpose in a particular fiscal year. The annual training grant to each eligible State and Tribe will support allowable activities as specified in the grant. The annual training grant for each eligible State and Tribe will consist of a base amount not expected to exceed \$100,000, adjusted annually for inflation, as well as a variable amount. The base amount for each grant depends on Congressional appropriations. DOE selected the amounts of the base grants based on experience with similar training programs and discussions with State, Tribal, and emergency response officials about the scope of work likely for each grant.

The amount of the annual training grants will be based on the appropriated funds available for that purpose in a particular fiscal year. Available funds will be first used to fund the base portion of the grant. Each eligible State will receive the same base amount as every other eligible State; each eligible Tribe will receive the same base amount as every other eligible Tribe. Remaining available funds will be used to fund the variable portion of the grant for each eligible State and each eligible Tribe on the basis of the allocation methods described below.

### **Allocation Method for Variable Portion of States' Annual Training Grants**

The variable portion of the training grant for States will be determined through a risk-based formula using the factors of population along routes, route miles, number of shipments, and shipping sites. The population figure, calculated from U.S. Census Bureau data, acts as a surrogate for either the number of responders requiring training or the number of jurisdictions requiring training. Total route miles (for all shipping modes) act as a surrogate for the accident risk. The number of shipments addresses the additional burden placed on States that are heavily impacted by shipments. Finally, the number of shipping sites will factor in the additional training burden placed on States that must prepare for point-of-origin inspections of both the package and the vehicle. Shipping sites will include commercial nuclear power plants, DOE sites, and any other entity shipping spent nuclear fuel or high-level radioactive waste

to a NWPA-authorized facility.

The steps are as follows:

Step 1: Collect raw data with respect to the factors of population along routes, route miles, number of shipments, and shipping sites for each State.

Step 2: Divide the raw State data for each factor by the national total for each factor. The result is each State's percentage of the national total for each factor.

Step 3: Multiply each State's percentage of each factor by the correspondent weighting for each factor as specified below in the allocation formula; the result would be summed to reach a total for each State, as follows:

<p><b><u>Allocation Formula:</u></b></p> <p><b>0.3 x Percentage of Population Along Route Corridors</b></p> <p><b>+0.3 x Percentage of Route Miles</b></p> <p><b>+0.3 x Percentage of Number of Shipments</b></p> <p><b>+0.1 x Percentage of Shipping Sites</b></p> <hr/> <p><b>= Total for Each State</b></p>
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Step 4: Sum the total for each State to obtain a national total.

Step 5: Divide each State's total by the national total to reach each State's percentage of available funds for the year.

DOE will work with applicants to ensure consistent sources are used to estimate the raw data for each factor of the formula. All factors are specific to the shipping year. The specific sources DOE will use for the raw data are as follows:

- The population factor will be calculated using the population within 2,500 meters of the route as calculated by the Transportation Routing Analysis Geographic Information System (TRAGIS), DOE's routing model. TRAGIS uses U.S. Census Bureau data as its source for population.
- For route miles, DOE will calculate the national total using TRAGIS to estimate the route miles for each year's projected shipments.
- The number of shipments annually through a State will be estimated based on DOE's projected shipments for each year.
- The number of shipping sites will be based on the number of defense and civilian sites originating a shipment within the State for the year for which an applicant is applying for funding.

#### **Allocation Method for Variable Portion of Tribes' Annual Training Grants**

The variable portion of the Training Grant for Tribes will be determined on the basis of the results from each Tribe's needs assessment conducted under the assessment and planning grant, as described below.

The steps are as follows:

Step 1: DOE will notify Tribes along the planned shipment routes of their eligibility.

Step 2: Each Tribe will have 90 days from the date of notification to complete its assessment and planning grant application. This application will require the Tribe to describe how it intends to conduct its needs assessment once it receives the funding. If requested, DOE will provide technical assistance to Tribal officials to complete the application. DOE has Transportation Emergency Preparedness Program coordinators and Tribal Points of Contact in each DOE region of the country that could help Tribal officials design their needs assessment and complete their grant proposal. In addition, OCRWM officials will be available to provide assistance and advice.

Step 3: The Tribe will submit its application for the assessment and planning grant.

Step 4: DOE will evaluate the application and award the grant based on the merits of the application.

Step 5: The Tribe will receive its assessment and planning grant award and initiate its needs assessment. DOE personnel will be available to provide technical assistance, if requested, during the needs assessment phase.

Step 6: The Tribe will complete its needs assessment, the results of which will form the basis for the Tribe's request for the variable portion of the training grant.

Step 7: The Tribe will submit its application for the training grant.

Step 8: DOE will evaluate the training grant application and award a grant based on the merits of the application.

## **ELIGIBILITY AND TIMING OF THE GRANTS PROGRAM**

DOE will provide grants and technical assistance to those States and Tribes through whose jurisdictions the Secretary of Energy plans to transport SNF and HLW to a NWPAs-authorized facility. Where a route constitutes a border between two such jurisdictions, every jurisdiction with emergency management responsibility and inspection authority over the route will be eligible for Section 180(c) assistance. If a State or Tribe will not have shipments but has cross-deputization or mutual aid agreements with a jurisdiction that will have shipments, the non-shipment jurisdiction may work with DOE to receive funding.

DOE will send a letter to the Governor or Tribal leader's office notifying them of their State or Tribe's eligibility to apply for Section 180(c) grants approximately five years before shipments are scheduled through that State or Tribe's jurisdiction. Each State or Tribe shall designate which agency or staff member of the State or Tribe will administer its Section 180(c) grants. Subsequently, DOE will communicate with the State or Tribe's designated agency or staff person regarding Section 180(c) grants.

Subject to the availability of appropriated funds, DOE expects to begin making assessment and planning grants available to a State or Tribe approximately four years prior to the first shipment to a NWPAs-authorized facility through that State or Tribe's jurisdiction.

DOE intends to issue training grants in each of the three years prior to a scheduled shipment through a State or Tribe's jurisdiction and every year that shipments are scheduled.

## ALLOWABLE ACTIVITIES

DOE intends to allow a broad array of eligible planning and training activities, thus providing the recipients flexibility to direct funds toward their individual needs. DOE will require applicants to describe and justify the need for proposed activities, training, and purchases in the application package for review and approval by DOE.

States and Tribes will need to describe in their grant applications how the grants will be used to provide training to local public safety officials. States and Tribes are expected to coordinate with local public safety officials during the assessment and planning phase and in developing their applications for the annual training grants. DOE recognizes that, depending on the State or Tribe, the role of local public safety officials in responding to incidents involving radioactive materials varies from a minimal role of crowd and traffic control to the primary role of incident command. Therefore, the benefit to local public safety officials should be consistent with established State, Tribal, and local roles in dealing with routine transportation and in responding to an incident involving NWPA shipments.

Examples of potential activities for the Assessment and Planning Grant include:

- Assessment of the jurisdiction's needs for training on procedures related to safe routine transportation and emergency management situations.
- Development of mutual aid agreements among neighboring jurisdictions and with Federal agencies.
- Planning for how to provide needed training for public safety officials.
- Participation in DOE, regional, and national transportation planning meetings.
- Intra- and interstate and Tribal planning and coordination.
- Support for exercises to test plans and training.
- Review of DOE transportation, emergency management, communications, and security plans, including threat assessments and civil disobedience/law enforcement planning.
- Obtaining access to DOE data and systems, such as the Transportation Tracking and Communications system (TRANSCOM) for information and shipment tracking.
- Evaluation and identification of alternative routes for DOE non-classified radioactive materials shipments according to 49 CFR 397, Transportation of Hazardous Materials' Driving and Parking Rules (referred to as HM-164).
- Risk assessments.
- Participation in DOE's Transportation Emergency Preparedness Program (TEPP).<sup>1</sup>
- Coordination with DOE's Radiological Assistance Program (RAP) training, exercises, and planning activities.<sup>2</sup>
- Planning activities using TRAGIS or other DOE route or risk assessment models.
- Participation in carrier evaluation programs that may be implemented through other agencies or

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<sup>1</sup> DOE's TEPP integrates transportation emergency preparedness activities for DOE non-classified shipments of radioactive materials to address the emergency response concerns of State, Tribal, and local officials affected by such shipments. TEPP is implemented on a regional basis, with a TEPP Coordinator for each region. TEPP ensures responders have access to the model plans and procedures, training, and technical assistance necessary to respond safely, efficiently, and effectively to transportation incidents.

<sup>2</sup> DOE's RAP is a team of DOE and DOE contractor personnel specifically trained to perform radiological emergency response activities. The RAP teams may deploy at the request of DOE sites; other Federal agencies; State, Tribal or local governments; or from any private organization or individual. Teams are located at eight sites around the Nation.

organizations.

- Staff costs related to planning and needs assessments.

The Training Grant has two categories of allowable activities: activities related to safe routine transportation and activities related to emergency management. Examples of activities for the Training Grant may include:

- Continuation of the activities initiated under the Assessment and Planning Grant, such as coordination with agencies within the State or Tribe, assessment of training needs, and assessment of technical assistance needs.
- Training and staff costs associated with the Department of Transportation's State Rail Safety Participation Program.
- Training for public safety officials in safety and enforcement inspections of highway shipments (drivers, vehicles, and shipping containers).
- Training related to accident prevention (e.g., for safe parking, bad weather, and road conditions).
- Training for appropriate local, State, and Tribal officials on the proper handling of information and documents, including secure and confidential shipments.
- Training for radiological inspections, both rail and truck.
- Training on a satellite tracking system.
- Equipment purchases, calibration, and maintenance for training purposes.<sup>3</sup>
- Training in implementation of mutual aid agreements among neighboring jurisdictions and agreements with Federal agencies.
- Training for public safety officials in hazardous materials emergency response procedures.
- Participation in DOE's TEPP.
- Training for emergency medical personnel, including hospital emergency medical personnel.
- Designing, conducting, and evaluating drills and exercises, including the implementation of mutual aid agreements and emergency response plans and procedures.
- Staff costs related to training.

## CONCLUSION

OCRWM has published a revised proposed policy for Section 180(c) and has asked for and received comments on the draft. Subject to available appropriations, next steps include evaluating public comments received on the 2007 notice and the 2008 notice; conduct a pilot program for 180(c) grants; issuing a new revised proposed policy for public comment; and then issuing a final policy prior to awarding the first 180(c) grants. The first grants are planned to be issued approximately four years prior to the commencement of shipments through a State or Tribe's jurisdiction to the proposed repository at Yucca Mountain in order to support assessing the need for and planning for training. OCRWM intends to continue to discuss preparedness for these shipments with interested State, local, and Tribal public safety officials through various forums to the maximum extent possible.

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<sup>3</sup> Grant funds can be used to purchase equipment for training purposes. They can also be used to calibrate and maintain equipment as long as the equipment is training-related and specific to the needs created by the NWPA shipments.