

## **Funding Allocation Method**

### **Introduction**

The Department of Energy has a few options for allocating Section 180(c) funds among participants. The choices include allocating funds according to a formula, based upon jurisdictions' needs assessments, or a combination of formula and needs assessment. The challenge in selecting an allocation method is how to balance the competing interests of recipient need, risk, equity, and program efficiency.

The Department of Energy, in the *1998 Notice of Revised Proposed Policy and Procedures*, selected a needs-based allocation method. This may no longer be the optimal solution depending on State preferences for a variety of formula-based grants, and the need to simplify the process thereby reducing administrative burdens for DOE and recipients.

The State Regional Group (SRG) members attending the Fall, 2004 Transportation External Coordination (TEC) Working Group meeting in Minneapolis developed a single formula as a proposal to carry back to their whole membership for consideration. The Recommendation section of this paper will be completed once those discussions are completed and the groups have either reached consensus on a formula or, failing that, have identified areas of agreement. The Options Considered Section of this paper describes the needs based approach from the *1998 Policy*, the formula developed at the Minneapolis TEC meeting, the Western Governors' Association (WGA) formula, and each of the original formulas from the other three SRGs. The original formulas can be moved to an appendix section for historical reference, allowing this paper to emphasize the areas of agreement, rather than the starting positions of each group.

### **Recommendation to Management**

The recommendation section will describe the areas of agreement, and the majority and minority opinions of the group. As of this writing, the SRGs are working to identify areas of agreement. The Tribal Topic Group will also examine the funding allocation issue. This section will be completed after their discussions.

How to handle mode?

### **Background**

- *1998 Notice of Revised Proposed Policy and Procedures*

The Office of Civilian Radioactive Waste Management's 1998 Federal Register Notice of Revised Proposed Policy and Procedures allocated funds based on an applicant's assessment of their needs. To ensure the applicant considered only those needs related to the increment of need caused by NWPAs shipments, the scope of the assessment was limited by the level and type of training allowed.

- Waste Isolation Pilot Plant

The Waste Isolation Pilot Plant (WIPP) works through cooperative agreements with each SRG. The WIPP staff work with the SRG staff and the individual states to determine each state's projects and activities. Shipment numbers, route miles, and population were not factored into the decision. (*Waiting for comments from Ralph Smith on accuracy of this statement*)

- Consolidated Grant

The Department of Energy halted consideration of a consolidated grant in early 2002.

The Consolidated Grant formula was an impact-based formula calculated using: number of shipments, mileage through a jurisdiction, and population along a route. A small amount of discretionary funding, based on need, would be available. Tribes would be consulted on their individual preferences for how to receive funding.

### **Options Considered**

The options below describe the formula used by the U.S. Department of Transportation (DOT) Hazardous Materials Emergency Preparedness (HMEP) Program and three variations on that formula, the Western Governors' Association proposed formula, and the needs assessment-based distribution method from the *1998 Notice of Revised Proposed Policy and Procedures*. These were the original positions presented by the SRGs. They groups have developed one formula that they will be discussing with their members at their Fall, 2004 meetings in an attempt to identify areas of agreement.

#### *A. 1998 Notice of Revised Proposed Policy and Procedures – Needs Assessment*

The only needs assessment-based allocation method the Topic Group discussed was the *1998 Notice of Revised Proposed Policy and Procedures*. In the *1998 Proposed Policy*, each eligible jurisdiction would receive a \$150,000 planning grant to conduct an assessment of their needs to prepare for shipments of spent nuclear fuel and high-level radioactive waste to an NWPA facility. The scope of their assessment would be limited by the allowable activities that defined the increment of preparedness necessary for these shipments. Then DOE would review their application and determine the appropriate amount of funding.

This approach received broad, although not universal support from the comments received in response to the multiple *Federal Register* Notices. In an ideal world, jurisdictions would determine their needs and DOE would fund all appropriate needs. A drawback to a needs assessment-based allocation is that DOE and the recipient jurisdiction may disagree over appropriate allowable expenses and an extensive negotiation could occur with each grant applicant. This negotiation could become antagonistic and lead to poor relations with the very jurisdictions DOE works in partnership with to plan radioactive materials shipments. The approach demands more administrative effort on both sides than a formula approach.

On the other hand, the extensive interactions of a needs assessment could be a potential strength of this approach. This interaction would resemble the project-based cooperative agreement model that requires DOE and the cooperative agreement holder to work interactively to determine a work scope, timeframe, and funding. This interaction can lead to more integrated planning between DOE and the jurisdiction.

*B. Suggested Formula Proposed by SRG's Members at Fall 2004 TEC Minneapolis Meeting*

The formula below was discussed by the SRG members attending the Fall 2004 TEC meeting in Minneapolis. The SRG members met separately from the Topic Group with the goal of developing a formula that all or most States could support. The attending members agreed to carry the formula back to their full membership for consideration.

Formula:

- Number of route miles (3/10%)
- Number of shipments (3/10%)
- Population along routes (3/10%)
- Shipment sites (1/10%)

Assumptions:

- Base level funding is available through planning and base grants.
- DOE recognizes need for other funding for non-180(c) activities.

*C. Western Governors' Association formula*

The WGA passed a resolution in 1994, reaffirmed in 2002, that describes their funding allocation recommendations to the Department. The WGA and Western Interstate Energy Board (WIEB) support an allocation formula that allocates 75% of funds according to miles in a state and the number of shipments. The remaining 25% of funds would be allocated to ensure minimum funding levels and program capabilities among impacted states and tribes. WIEB believes that the number of shipments traveling through a state is an approximate measure of the risk to be incurred by that state. The number of miles traveled through a state is also a relative measure of such risks as the potential for an accident, equipment breakdown and overall exposure to the population. In the West, great distances over interstate highways or rail corridors require emergency responders to be prepared to cover a wide territory – often difficult, steep or hazardous terrain. In the many rural communities along a corridor in the west, emergency responders are not as well prepared to handle radiological events, as they are in well-established and fully staffed urbanized areas. Therefore, the baseline level of training is inadequate, thus requiring a sufficient level of 180(c) resources to train responders to an adequate level of expertise.

The position of Western Governors is that the beneficiary of the NWPA transportation system should pay for the cost of preparations for such shipments. Taxpayers in corridor states should not bear the cost of NWPA shipments.

This formula recognizes that:

- The number of shipments traveling through a state is a good proxy for the burden on emergency response and other state personnel. Special measures, which do not impose a long-term drain on state and local government resources, can be used for a single shipment (e.g., from a reactor to a major shipping corridor). By contrast, routes involving numerous shipments over many years will need to have built into the emergency preparation capabilities along the route permanent elements to address NWPA shipments.
- The number of miles traveled through a state is a good proxy for the probability of an accident, equipment breakdown, and severe weather delays. More frequent accidents, equipment breakdowns, and delays increase the burden on state emergency preparedness capabilities.
- There is frequently an inverse relationship between the length of a shipping route and the level of emergency preparedness along the route. In the West, long distances over interstate highways or rail corridors require emergency responders to be prepared to cover a wide territory. In most rural communities along potential shipping corridors in the West, emergency responders are not as well prepared to handle radiological events as they are in well-established and fully staffed urbanized areas. Therefore, the baseline level of training along long distance routes is typically less adequate, thus requiring a sufficient level of 180(c) resources to train responders to an adequate level of expertise. Compounding the problem in non-urban areas is the reality that such areas are more dependent on volunteer responders who have a higher level of turnover and thus place a greater demand on training resources.
- Allocating all funds according to shipment-miles does not ensure that emergency preparedness needs are funded in all circumstances. For example, a state may have too few shipment miles to build necessary capabilities. That is why the proposal to provide 25 percent of the funds can be allocated by the Secretary to meet these types of circumstances.

#### *D. Hazardous Materials Emergency Preparedness (HMEP) Program*

The HMEP program is discussed in this paper because it serves as the foundation for the original formula recommended by three of the four SRGs. HMEP is the responsibility of the U.S. Department of Transportation's Research and Special Programs Administration (DOT/RSPA). The HMEP program, authorized under the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) of 1990, provides grants to States, Territories, and Tribes for planning and training associated with hazardous materials transportation. A 20 percent match is required. Two types of grants are available: (1) Planning grants to help recipients develop, improve, and carry out emergency plans under

the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, including ascertaining flow patterns of hazardous material on lands of another State or Indian Tribe; and (2) Training grants to assist recipients in training public sector employees to respond to accidents and incidents involving hazardous material. Planning grants are available to both states and tribes; however, tribes are not eligible for training grants.

The funding approach was developed by the HMTUSA Interagency Coordinating Group, chaired by DOT. Different approaches are used for each grant as well as for States and Tribes.

States and territories: Both grants provide for a base amount plus a variable amount that is allocated on the basis of three factors that differ by type of grant.

⇒ For planning grants:

1. \$2 million is divided equally among recipients as a base amount.
2. The remaining total is allocated on the basis of surrogate measures of risk:
  - a. Total population (2/10).
  - b. Total hazmat truck miles (4/10).
  - c. Percentage of SARA 302 chemical facilities (4/10).

⇒ For training grants:

1. \$30,000 is provided to each recipient as a base amount
2. The remaining total is allocated on the basis of surrogate measures of risk:
  - a. Total population (1/2).
  - b. Total highway miles (3/10).
  - c. Percentage of total number of U.S. Census Bureau chemical facilities (2/10).

Indian Tribes: Both grants set aside 3 percent for Tribes. Grants are awarded on a competitive basis. No factors are used.

#### *Council of State Governments – Midwest Region*

The Midwestern states have suggested that OCRWM look to the DOT's HMEP grant program as a model for the Section 180(c) assistance. The HMEP grant program provides funding for planning and training activities in connection with the transportation of hazardous materials. As a result, it is a good model in a broad sense for the 180(c) program, which focuses on planning and training related to the transportation of spent nuclear fuel and high-level radioactive waste. For the purposes of the 180(c) program, the Midwest's endorsement of the HMEP program is limited to the funding allocation method. The region is not recommending that OCRWM adopt the exact funding mechanism or the pass-through requirement associated with the HMEP grants.

The HMEP grant program has a proven record of success and state support. The grants meet the states' desire for simplicity in application and reporting, as well as the desire for flexibility in the use of funds. The allocation formula is simple, objective, and it

encompasses measurable risk factors. OCRWM can refine this formula to reflect the actual routes and the affected population.

Because it is unclear how OCRWM will provide funding to the tribes, the Midwest's proposal is limited to the states at this time. The Midwestern states propose retaining the planning grants and base grants described in the 1998 Proposed Policy. For simplicity and to give the states flexibility, the variable grants should be based on a formula like the HMEP formula, rather than on the cost of bringing all affected responders up to a specific level of training. The Midwest proposes the following formula for the variable grants:

- 0.3 (Percentage of Population along Route Corridors)
- + 0.3 (Percentage of Route Miles)
- + 0.3 (Percentage of Number of Shipments)
- + 0.1 (Percentage of Shipping Sites)

All factors would be specific to the shipping year, not the life of the program. The population figure would capture either the number of responders requiring training or the number of jurisdictions requiring training. Total route miles (for all modes) would act as a surrogate for the accident risk. The number of shipments addresses the additional burden placed on the states that are heavily impacted by shipments. Lastly, the number of shipping sites (including storage facilities) would 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 would include power plants, DOE sites, and any other entity shipping spent fuel or high-level radioactive waste to Yucca Mountain.

Other States felt the HMEP formula would not give sufficient preparedness to more rural routes with the highest number of shipments. These states view the length of the route and number of shipments as a better representation of the burden of the shipments. They are concerned that the HMEP formula would not sufficiently account for this burden.

*Council of State Governments – Eastern Regional Conference*

The CSG-ERC's proposal is preliminary and has not been voted on by their transportation committee. They propose the Section 180(c) funding be allocated along the lines of the HMEP allocation method. The formula and amounts are modified for the specific needs of commercial spent fuel transportation. Grant funding would be divided equally between two types of grants: planning grants and training grants. The funding would be allocated as follows:

Planning Grants

1. A set amount each year for each recipient as a base amount (\$200,000 each ?)
2. The remaining total allocated on the basis of surrogate measures of risk:
  - a. Total population along route corridors (5/10)
  - b. Total miles of qualified route (3/10)

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- c. Percentage of total annual shipments through jurisdiction (2/10)

Training Grants

- 3. A set amount each year for each recipient as a base amount (\$100,000 each ?)
- 4. The remaining total allocated on the basis of surrogate measures of risk:
  - a. Total population along route corridors (5/10)
  - b. Total miles of qualified route (3/10)
  - c. Percentage of total annual shipments through jurisdiction (2/10)

*Southern States Energy Board*

This proposal has been developed by the SSEB attendees of the September 21, 2004 Transportation External Coordination Working Group meeting. Although we feel it is representative of the member states position, it has not been voted on by the complete SSEB membership. It is therefore subject to modification.

We propose the Section 180(c) funding be allocated in accordance with the following, the funding would be provided in the form of a Planning Grant and a Training/Operations Grant.

Planning Grant:

- 1. A set (base) amount for each affected state to be decided by the requirements for program planning and development.
- 2. A variable amount to be allocated on the basis of surrogate measures of risk
  - a. Total population along route corridors (2/10)
  - b. Total miles of shipment routes (2/10).
  - c. Total number of shipments through or from a state (5/10).
  - d. Total of nuclear facilities in a state (1/10).

Training/Operations Grant:

- 1. A set amount each year for each affected state as a base for program operation.
- 2. An amount for program training and operation based on:
  - a. Total population along route corridors (2/10).
  - b. Total miles of shipment routes (2/10).
  - c. Total number of shipments through or from a state (5/10).
  - d. Total of nuclear facilities in a state (1/10).

## Appendix A

### Homeland Security Presidential Directive #8 (HSPD #8)

The impact of this December 17, 2003 Presidential Directive is unknown. The impact could be significant because it could direct DOE's grants to be formula-based using the factors described in the directive (excerpted below). How much of an impact this directive has on Section 180(c) depends on how the Department of Homeland Security implements the Directive. The complete document is attached. A few key provisions are excerpted below:

“This directive establishes policies to strengthen the preparedness of the United States to prevent and respond to threatened or actual domestic terrorist attacks, major disasters, and other emergencies by requiring a national domestic all-hazards preparedness goal, establishing mechanisms for improved delivery of Federal preparedness assistance to State and local governments, and outlining actions to strengthen preparedness capabilities of Federal, States, and local entities ....

The term ‘Federal preparedness assistance’ means Federal department and agency grants, cooperative agreements, loans, loan guarantees, training, and/or technical assistance provided to State and local governments .... Unless noted otherwise, the term ‘assistance’ will refer to Federal assistance programs...

The Secretary [of the Department of Homeland Security], in coordination with ... the heads of other Federal departments and agencies will establish ... full implementation of a closely coordinated interagency grant process ... by September 30, 2005.

To the extent permitted by law, the primary mechanism for delivery of Federal preparedness assistance will be awards to the States ... Federal preparedness assistance will be predicated on adoption of Statewide comprehensive all-hazards preparedness strategies ...

In making allocations of Federal preparedness assistance to the States, the Secretary, ... the Secretary of Energy... and the heads of other Federal departments and agencies that provide assistance for first responder preparedness will base those allocations on assessments of population concentrations, critical infrastructures, and other significant risk factors, particularly terrorism threats, to the extent permitted by law.

Federal departments and agencies will report annually to the Secretary on the obligations, expenditure status, and the use of funds associated with Federal preparedness assistance programs.”