

Design of Section 180(c) Proposed Policy Implementation Exercise

INTRODUCTION

Under Section 180(c) of the Nuclear Waste Policy Act of 1982 (NWPA), as amended, the Department of Energy (DOE) is responsible for providing technical and financial assistance for training of local public safety officials to States and Tribes through whose jurisdiction the Secretary of Energy plans to transport spent nuclear fuel or high-level radioactive waste to a NWPA-authorized facility (NWPA shipments). In the 2000s, DOE staff worked closely with State and Tribal representatives to develop a proposed policy to implement Section 180(c). As described in the proposed policy, grants would cover assessment and planning activities as well as training for public safety officials to meet the increment of need for NWPA shipments. This proposed policy was published in a Federal Register Notice in 2008 (2008 FRN) (73 Fed. Reg. 64933, Oct. 31, 2008).

This document provides the conceptual design and process for a Section 180(c) Proposed Policy Implementation Exercise (the Exercise). The primary goal of the Exercise is to test the operability of the policy framework described in the 2008 FRN. Additional goals of the Exercise include comparing policy options and implementation logistics, where appropriate; enhancing DOE and stakeholders' understanding of the Section 180(c) program implementation; and generating an experiential basis to inform future 180(c) policy decisions. The exercise will provide DOE program staff, States and Tribes with a step-by-step mock walk-through of the Funding Opportunity Announcement (FOA), notice of eligibility, development of a grant application and budget justification, merit review, negotiations, and award process. The anticipated outcome of this Exercise is that DOE, States and Tribes will have a better understanding of the scope of Section 180(c) as well as the application and program logistics and timing, and develop a better understanding of potential training needs and funding levels. DOE staff and the Exercise volunteers will work together over the winter of 2014-2015 to complete the mock application process and an assessment of their needs to prepare for NWPA shipments along hypothetical routes. State, Tribal, and DOE participants will demonstrate their work and findings at a workshop held in conjunction with the National Transportation Stakeholders Forum (NTSF) annual meeting in May 2015.

For the Exercise, the mock grant application and award process will not mirror exactly the grant application process typically required by DOE when applying for a real grant. For example, staff from the DOE's Nuclear Fuels Storage and Transportation Planning Project (NFST) will assist in writing the initial grant application; the volunteers will select mock transportation routes independently; and the mock Merit/Expert Review Panel members will not function in exact accordance with DOE financial assistance guidelines, nor will the grant negotiations occur exactly according to these guidelines. These adjustments are intended to enhance the transparency and educational value of the Exercise for all participants and observers. DOE staff will note for the Exercise volunteers when procedures for the Exercise differ from actual DOE financial assistance guidelines or the Section 180(c) proposed policy framework described in the 2008 FRN.

EXERCISE BACKGROUND

At the 2013 meeting of the NTSF, the Section 180(c) Working Group (consisting of DOE, State and Tribal representatives) agreed to design and conduct an exercise to help participants better understand the revised proposed policy and procedures for implementing Section 180(c). At the May 2014 NTSF meeting, the Section 180(c) Working Group asked that DOE design the exercise, keep the Working Group informed via e-mail, and then hold a webinar or a meeting of the 180(c) Working Group in September 2014 to present the proposed design to States and Tribes for discussion and feedback. A draft proposal for the Exercise was discussed and feedback received both at the NFST's Core Group meeting in August 2014 in Denver, and at the Section 180(c) Working Group meeting on October 1, 2014 in Atlanta. The attendees at these meetings discussed the Exercise's goals, scope, steps, and time commitment required for Exercise volunteers. During their fall/winter committee meetings, States and Tribes will be discussing the Exercise with their members, and soliciting volunteers for the Exercise. The NTSF Tribal Caucus decided at their September 31, 2014 meeting in Atlanta to further discuss participation in the Exercise with the Tribal Caucus members and their individual Tribal governments, with the intention of identifying Exercise volunteers by their January meeting. DOE agreed to continue discussions with them regarding Tribal participation in the Exercise.

During 2012 and 2013, DOE staff worked with the NTSF Section 180(c) Working Group to explore updating the 2008 FRN to resolve outstanding policy questions. When that work was put on hold, the State Regional Groups (SRGs) formed the Inter-regional Team (IRT) to continue the effort to reach consensus on certain aspects of the revised proposed policy. The IRT reached final agreement on ten issues and preliminary agreement on the funding allocation method, which included retaining the 2008 formula. The IRT hopes to submit a final funding allocation recommendation to DOE after each region votes on the recommendations at their fall/winter meetings. To the extent practicable, DOE staff have incorporated the IRT's draft policy recommendations into the Exercise, while maintaining the framework provided in the 2008 FRN.

EXERCISE PARTICIPANTS

DOE is seeking volunteer States and Tribes to participate in the Exercise. States and Tribes that are interested in gaining a better understanding of the 180(c) proposed policy, but not able to volunteer for the Exercise, may participate as observers.

EXERCISE DESIGN AND SCHEDULE

The Exercise is expected to kick-off in December 2014, once DOE staff have prepared mock notices of eligibility and application documents, and States have identified volunteers (and observers), with Tribal representatives identifying their volunteers (and observers) a little later. The active part of the Exercise will end in May 2015 at a full-day workshop, followed by a written report of lessons learned and potential policy recommendations developed during the summer of 2015.

DESIGN - The Exercise will be a test-run of the 2008 FRN plus some policy alternatives to compare to the 2008 FRN. In addition, the design of the Exercise requires some procedural modifications to enhance the

educational value of the Exercise and accommodate the short timeline. The principle components of the Exercise are identified below. Each section describes the 2008 FRN proposed policy for that component, followed by policy alternatives to be investigated in the Exercise, and procedural modifications applied for the purposes of the Exercise only.

Grant Structure:

- The 2008 FRN was structured with two grants, an initial Assessment and Planning (A&P) Grant plus an annual Training Grant. DOE proposed in the 2008 FRN to begin making A&P Grants available four years prior to the first NWPA shipment and 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. (For additional detail, see the full proposed policy, 73 Fed. Reg. 64933, Oct. 31, 2008.)
- *Policy Alternative:* The Exercise will not test the 2008 FRN two-grant structure. Instead, an alternate grant structure is proposed that is a hybridization of recommendations by the 2012/2013 Section 180(c) Working Group and the 2014 IRT. Under this option, there would be one Funding Opportunity Announcement (FOA) and one grant application to cover two phases of the grant award, both the A&P activities and training. Once the A&P activities are completed, applicants would submit two, 2-year work plans and budget justifications (rather than applying for a separate grant) to request funds for training and related activities for a 4-year period, comprised of 3 years of preparatory training and 1 year of active shipments and training.
- *Exercise Modification:* For the purposes of this Exercise only, DOE staff will complete a generic initial grant application and make a generic mock A&P award for each volunteer. The volunteers will begin the exercise after the first grant phase (i.e., the A&P phase). The volunteers will complete their needs assessments (the sample one provided by DOE or their own version) and write their two 2-year work and budget plans. The two 2-year work and budget plans are intended to capture costs for the pre-shipment preparation period and costs once shipments have begun.

Grant Budget:

- In accordance with the NWPA, funding for the actual Section 180(c) program will be appropriated from the Nuclear Waste Fund by Congress.
- *Exercise Modification:* For the purposes of this Exercise only, the total amount of mock funds available will be based on a proportionally scaled amount of the estimated total annual cost of Section 180(c) during full operations, \$10 million. Once the number of volunteers has been finalized, the total mock budget for the Exercise will be determined.

Base Funding Amounts:

- The 2008 FRN called for two types of grants – an initial Assessment and Planning (A&P) Grant of up to \$200,000 (to be adjusted annually for inflation, which would be \$220,000 in 2014 dollars), and annual Training Grants consisting of a base amount of up to \$100,000 (to be adjusted annually for inflation, which would be \$110,000 in 2014 dollars).

- *Exercise Modification: The Exercise base funding amounts will follow the 2008 FRN as described immediately above. However, for purposes of this Exercise, and following a recommendation from the IRT, the volunteer mock applicants will be able to apply for the level of training funds they feel is appropriate, even if it exceeds the 2008 FRN base amounts. Requested funds and activities, regardless of available mock funding levels, will be subject to evaluation and approval by the Merit/Expert Review Panel. This will also serve to test the reasonableness of the 2008 FRN base grant amounts.*

Variable Funding Amounts:

- In accordance with the NWSA, funding for the actual Section 180(c) program will be appropriated from the Nuclear Waste Fund by Congress.
- *Exercise Modification: For the purposes of this Exercise only, the variable funding will be determined once the total number of volunteers is known and the base grant amounts are subtracted from the mock Exercise budget.*

Funding Allocation for Variable Amounts:

- The 2008 FRN proposed a variable amount for training grants, in addition to the base amounts. Any remaining appropriated funds available after funding the base amounts would be allocated among eligible States according to a formula published in the FRN. The variable amounts for Tribes would be allocated according to their needs assessments.
- *Policy Alternatives: For States, the Exercise will evaluate the 2008 FRN approach for allocating variable amounts. For Tribes, the Exercise will evaluate two options. One will be the current 2008 FRN needs assessment approach, and the other will use the 2008 formula to allocate variable amounts to Tribes. For Tribes, this tests both the formula and the needs assessment approach and allows the Tribal Caucus to compare them.*
- *Exercise Modification: The 2008 FRN did not define how variable amounts would be divided between the pool of Tribal applicants and the pool of State applicants. For the purposes of the Exercise only, a percentage set-aside of the total variable funds will be used for the Tribes. The percentage used will depend on the relative numbers of Tribal and State volunteers.*

Operational Activities:

- By law, Section 180(c) funds are only allowed to be used for costs related to training for NWSA shipments; it does not include operational activities.
- *Exercise Modification: DOE staff recognize that funding for operational costs is an important issue to State and Tribal stakeholders. Therefore, for the purposes of this Exercise only, applicants will be allowed to include operational costs, broken out separately from training costs, in their funding requests. Operational costs will not be included in mock training award amounts; however, discussion of potential operational activities and costs by the Merit/Expert Review Panel, and mock negotiations with applicants, will provide feedback to States and Tribes on what operational activities might be considered as part of some other*

funding mechanism in the future, help DOE staff gain a better understanding of this issue, and could help inform future policy decisions.

SCHEDULE - The following Exercise schedule was proposed at the October 1, 2014 Section 180(c) Working Group meeting in Atlanta, and subsequently adjusted based on conversations with SRG staff. Discussions with Tribes about their participation are on-going. Exercise modifications of schedule and procedure are described in [bracketed language] below.

November – December 2014: Exercise Preparation (activities will occur concurrently)

- DOE staff will:
 - Complete a mock letter of eligibility to governors and Tribal chairs (letter will include hypothetical routes, modes, number of shipments, and when shipments are scheduled, as described below)
 - Complete a mock Funding Opportunity Announcement (FOA)
 - Complete a generic initial mock grant application with a mock award to each volunteer.
 - Send a letter to Tribal Chairs requesting that their Tribe (already identified as a potential volunteer) participate in the Exercise (a real letter, not a mock letter).
 - Setup a mock Merit Review Panel review and score the mock application.
 - Identify and inform other Federal staff that may be asked to participate in the Exercise (Federal Railroad Administration, DOE emergency operations office, DOE procurement staff).
 - Hold a webinar with the volunteer States and Tribes to discuss the initial grant application process, the Merit Review Panel's score of the mock application, and answer questions about that process.

- DOE will establish the hypothetical number of shipments through a jurisdiction. [**Note:** For the purposes of the Exercise only, DOE will estimate shipment numbers using real estimates from shut-down sites or operating sites with on-site dry storage facilities, wherever possible. The numbers below are meant to represent start-up years (years 1 and 2) and full operation of an interim storage facility (years 3, 4, and 5)]:
 - If a volunteer State has a shut-down site, the number of shipments will be based on the actual estimated number of shipments from that site. Otherwise:
 - *Years 1 and 2:* Each State and Tribe will assume 10 shipments a year through their jurisdiction if there are no actual estimated shipment numbers from a shut-down site to use.
 - *Years 3, 4, and 5:* Half the participating States and Tribes will assume 15 shipments each per year. The other half of the participants will assume 25 shipments each per year.
 - *Mode:* Assume that the primary mode will be dedicated train;

- State and Tribal staff will continue to discuss the Exercise at their upcoming fall/winter meetings and among their communities to solicit volunteers for the Exercise. The criteria below outline the desired mix of volunteers in order to maximize the Exercise's value:

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- At least one, but no more than two, Tribes from each region of the country. At least one Tribe should have a comparatively higher level of emergency preparedness, and one should have a comparatively lower level of preparedness.
 - At least one, but no more than two, States from each region. State volunteers should have a mix, either amongst the group of States or within a single State, of rural and urban routes to be assessed and compared.
 - At least two regions should have a volunteer with a site of origin (e.g., the site of an operating commercial nuclear reactor or shut-down site).
 - At least one State (overall, not from each region) should have a barge route that could be assessed.
 - DOE estimates that volunteers should expect a 40-60 hour time commitment between January and May, not including the NTSF meeting. A more limited time commitment (~10 hours) will be expected after NTSF to provide feedback and develop a lessons learned document. Volunteers can meet face-to-face in their region or among regions as they wish.
- Volunteer States and Tribes will determine hypothetical routes through their jurisdictions, keeping in mind the following tools and criteria. [**Note:** For purposes of this Exercise, hypothetical routes will be selected by volunteers. In reality, route identification is subject to various regulatory restrictions, and route selection will likely involve multiple parties such as DOE or another management and disposal organization, States and Tribes, railroad companies, other federal agencies, and stakeholder organizations.]
 - Volunteers may train on START and use START as one tool to select a hypothetical route through their jurisdiction (trainings to be offered at the SSEB winter meeting, and possibly the Tribal Caucus meeting in January).
 - The hypothetical route should go from an originating site to that State's or Tribe's border, border to border, *or* be at least 100 miles long within a State's boundaries.
 - Volunteers may select more than one route through their jurisdiction (not required) if they expect to have more than one route through their jurisdiction during full operation of an interim storage or disposal facility.
 - States or Tribes with a site of origin will also need to select the site of origin, identify the mode from the facility, and select the mode transfer point (if applicable).
 - Selected hypothetical routes should prioritize use of rail, where available. For the purposes of the Exercise only, some number of shipments should be evaluated as heavy haul or barge shipping to a mode transfer site.
- DOE will establish a mock Merit Review Panel and an Expert Review Panel. Federal guidelines require federal grant applications to be reviewed by a "merit review panel." For Section 180(c), given the two-phase funding, single grant application policy alternative that has been proposed for the grant structure, a merit review panel will be used for the initial 180(c) grant applications for the phase 1 A&P funds. For phase 2 of the grant, the work scope and training funds phase, requests will be evaluated by an "expert review panel." [**Note:** For the purposes of the Exercise, the Merit and

Expert Review Panels will be comprised of the same people; therefore we will refer to them collectively as the Merit/Expert Review Panel.] Guidelines for merit/expert review panels mandate that review panels be comprised of three to five Federal staff with relevant expertise, with an option for non-voting panel advisors to serve as subject-matter experts. [**Note:** For the purposes of this Exercise, a State and a Tribal official will be included as panel advisors in order to increase understanding of the Merit/Expert Review Panel process and to enhance the learning opportunity.]

- DOE will establish the DOE roles needed to review and award the mock grants. These will include a Program Manager (E. Bickford), Project Officer (M. Bates), and a Selection Official (J. Williams).

January – May 2015: Exercise Participation

January 2015

- Tribal volunteers will be identified.
- A kick-off FOA webinar will be held in early January to clarify questions, scope, and time commitment.
- DOE will write Exercise grant FAQs, and post them to the NTSF wiki site.
- SRG staff will meet with volunteer State staff. NCSL staff will similarly meet with interested Tribe staff, if applicable.
- An additional webinar for update on progress and Q&A on needs assessment process will be scheduled for late January.

The volunteers may use START and the sample needs assessment form developed for this Exercise to determine their current level of preparedness, and then identify the appropriate level of preparedness that is consistent with their State's or Tribe's emergency response infrastructure and plans. They should identify where gaps exist and determine the specific types of training that will be necessary for the various inspection and enforcement activities, and emergency response agencies along the transportation corridors. They should keep in mind that the 2008 FRN states:

“Training should be to the level of detail and to the degree necessary to prepare for shipments to an 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.”

Volunteers will write their requests for training funds based on the results of their needs assessments. The request must be written to address the Merit Review Criteria for the Training Grant listed in the 2008 FRN. Consistent with the 2008 FRN, the activities and budget requests should be for two years of a four year work plan. [**Note:** For the purposes of this Exercise, DOE, SRG, and NCSL staff will assist with this process, but for a real financial assistance program, DOE staff could not be involved. In addition, during an actual Section 180(c) program, there would be

time for review and negotiation between submission of the first 2-year training budget and the second 2-year training budget (to include the first year of shipments). However, for the purposes of the Exercise, there may be little or no feedback from the Expert Review Panel before the second budget submission, depending on the staff time required (currently being discussed with potential volunteer States, yet to be discussed with the Tribes).]

February 2015

- Volunteer States and Tribes will submit mock work plans and training activities with budget requests, due February 16th, 2015.

March 2015

- The mock Expert Review Panel will review work plans and training fund requests. [**Note:** for purposes of this Exercise, the panel will discuss funding requests for operational activities.]
- Award negotiations take place, and final mock award amounts are announced.

April 1, 2015

- Merit/Expert Review Panel selects Exercise volunteers to present at the NTSF workshop.

May 11, 2015

- One-day workshop is held at NTSF, preliminary lessons learned to be discussed.
- Selected applicants will present their case studies.

THE WORKSHOP AT NTSF 2015

The workshop will be held at the annual NTSF meeting in May 2015 to discuss participants' experiences with the Policy Implementation Exercise. The workshop will be as interactive as possible. The current proposal is to have a select number of volunteers demonstrate their experience using the START software projected onto a screen as a visual aid. The mock Merit/Expert Review Panel will discuss its review of the applications; DOE procurement officials will discuss the negotiations that took place prior to the mock award; the DOE mock Selection Official will discuss their approval of the mock financial award; and all will discuss their experience, the barriers they encountered, what they learned, and what changes they would recommend to the Section 180(c) proposed policy.

A proposed agenda for the workshop could be as follows:

- 1) Introductions – Introduce participants and give an overview of the purpose and scope of the workshop and the anticipated outcomes. Ask for questions and comments on the training and guidance provided and discuss the experience gained by participants along with the level of effort and degree of difficulty. –Estimated 45 minutes.
- 2) DOE and mock Merit/Expert Review Panel Presentation: Discuss development of the initial grant application, statement of objectives, value of the 2008 FRN Merit Review Criteria for the training

activity/budget requests, list of allowable activities, estimated cost of proposed activities, and resulting mock award of funds. For visual support, project the statement of objectives and Merit/Expert Review Panel's findings on screen. –Estimated 2 hours.

- 3) State and Tribal Presentation: To help with the interactive and visual aspects, use START to project the hypothetical route under discussion onto a screen as an aid to discuss how they conducted their needs assessment and made decisions about necessary training. Have at least one State and one Tribe walk through their work and experience in the following areas:
 - a. Access and use of START (the route decision support tool)
 - b. Identification of a hypothetical route
 - c. Needs assessment and process for determining the “increment of need” based on route-specific training needs, equipment needed for training, and management
 - d. Development of a training activity/budget request including cost estimates.

–Estimated 2 hours

- 4) DOE and mock Merit/Expert Review Panel: Discuss their review and evaluation of the volunteer's training funds requests. The presentation should include examples of discussions between the applicant and DOE on training, equipment costs, or other technical assistance. The reason for the award amounts should be discussed in depth, explaining the level of detail that was needed to make an informed decision, and any types of information left out of the training fund requests. Participants should also describe the experience working with Tribal governments and how that can inform future 180(c) policy development. --Estimated 45 minutes.
- 5) State and Tribal Response: The State and Tribal volunteers and observers respond to the assessment and award process for the training grants. Describe how they viewed the process, what difficulties they faced, their response to the DOE and mock Merit/Expert Review Panel's awards, and what they learned through the process.
 - a. Use an Excel table to show inputs and calculations based on cost data provided by participants. Show results as a percentage of the overall Section 180(c) budget minus any hypothetical discretionary or contingency funding.
 - b. Show the impacts on overall values by using a hypothetical example where DOE proposes a budget that meets the cumulative value of all needs assessments/Statements of Work but receives an appropriation that is 30% lower. Re-run the calculations to demonstrate the reduction in the upper bound allocation.

–Estimated 1 hour

- 6) Open the floor for questions and discussion. – Estimated 1 hour

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EVALUATION AND LESSONS LEARNED FROM THE EXERCISE

After the NTSF meeting, the Exercise participants will document the lessons learned from the Exercise and suggest potential changes to the Section 180(c) revised proposed policy as appropriate. This may require one face-to-face meeting or possibly a webinar to review the material and provide feedback. The results of this Exercise will inform future Section 180(c) policy development.