

NGA Federal Facilities Task Force  
Spring Meeting with the U.S. Department of Energy  
May 5 - 6, 2011

Executive Meeting Summary

**Overview**

On May 5 and 6, 2011, the National Governors Association's Center for Best Practices hosted a meeting of the NGA Federal Facilities Task Force (FFTF) and U.S. Department of Energy Office of Environmental Management (DOE-EM) officials in Washington, D.C. The overarching aims of the meeting were to improve intergovernmental communications and promote an open dialogue between states and DOE-EM on issues of mutual concern and to help achieve their common goals.

On May 5, FFTF members met to discuss recent developments in efforts to clean up the U.S. nuclear weapons complex and share information on cleanup at specific sites. Following this states-only meeting, FFTF members and DOE-EM officials heard remarks from Martin Schneider, Editor-in-Chief of Exchange Monitor Publications. The final session on May 5 was a panel discussion on site footprint reduction and closure; the panel was comprised of state and DOE-EM officials.

During the morning of May 6, FFTF members were joined by senior DOE-EM officials including Assistant Secretary Inés Triay and Acting Chief Business Officer and Deputy Assistant Secretary for Technical and Regulatory Support Frank Marcinowski for presentations and discussion on the state of EM in 2011 and beyond, budgets, waste management, and compliance. At the conclusion of these presentations and discussions, FFTF members reconvened for a working lunch to review key points from the two meeting days, actionable items, FFTF priorities, and preview of the 2011 Intergovernmental Meeting.

*Meeting presentations and materials are available at: <http://www.fftfcleanup.org/meetings.htm>*

**Update from the Hill: Remarks from Martin Schneider, Editor-in-Chief, Exchange Monitor Publications**

DOE-EM's FY2011 budget situation is difficult, and upcoming years' budgets are not likely to improve. Given this reality, several questions are worth asking:

- What is the severity of EM's budget cuts?
- How many layoffs will result?
- How many missed milestones will result?
- What will be the impact to the overall health of the EM program?

DOE will submit a spending plan on May 15; under the continuing resolution, EM has wide latitude to disperse its spending cuts across the program. Early DOE assessments estimate 7,000 layoffs, which will undoubtedly affect milestone achievement. The "worst case" scenario presented by DOE to Congress listed 18 at-risk milestones at Hanford; the possibility of \$22 million per year in penalties if the calcine project at Idaho is delayed; and delay in cleanup of the Oak Ridge gaseous diffusion plant. EM's FY2012 budget request is \$6.1 billion, which EM says will be sufficient to meet all milestones. However, it is unrealistic to expect full program funding in FY2012 for two reasons: 1) Congress will defer to funding reductions proposed in the House, and 2) EM currently lacks

broad commitment from Congress, unlike other programs/agencies such as the National Nuclear Security Administration (NNSA). Final FY2012 funding may be around \$5.2 billion, and funds will be directed toward states with enforceable cleanup agreements.

The EM 2020 Vision, though laudable, is not feasible. For example, the State of Kentucky has repeatedly warned DOE that legacy cleanup at the Paducah Gaseous Diffusion Plant will be delayed ten years given projected annual funding; the Oak Ridge Reservation (ORR) will require a 25 - 50% annual funding increase for several years to even approach the timeline in the 2020 EM Vision.

Mr. Schneider added the following comments in response to participant questions:

- The FY2013 budget situation is more difficult to predict because it will follow the 2012 presidential election; power in the Senate could also shift.
- EM's budget outlook could improve if the program can target those areas in which real victories can occur, such as completion of major cleanup activities at Idaho by 2015.
- American Recovery and Reinvestment Act's (ARRA) footprint reduction will go partway toward offsetting the approximately \$4 billion in annual "hotel" costs incurred each year throughout the weapons complex; however it should be noted that ARRA's primary purpose was job creation.
- EM's priority is to address its responsibilities based on risk, and liquid high-level waste (HLW) is clearly the highest risk waste stream in the EM program. The funding commitment for processing HLW at the Hanford Waste Treatment Plant (WTP) will peak at \$1 billion annually; given the likely drop in appropriations for FY2012 and beyond, there is real concern over shifting funds away from other programs.
- Despite inquiries and hearings by House Republicans, a central geologic repository at Yucca Mountain, Nevada becomes less likely with each passing day.

### **Panel Presentations and Discussion: Footprint Reduction and Site Closure**

#### **Remarks from Patrick Anderson, Missouri Department of Natural Resources**

During the 1940's the U.S. government identified 17 acres at Weldon Spring as a location for an explosives factory. At the end of the Second World War, the site sat idle; however in the late 1950's and early 1960's the site was used as a uranium foundry before closing again in the mid-1960's. During the 1980's the government recognized the severe environmental contamination at the site, in particular an on-site quarry used as a disposal area. EPA placed the site on the EPA National Priority List (NPL) in 1987, and after several million dollars of cleanup, the site was transferred to the DOE Office of Legacy Management (LM) in 2003.<sup>1</sup>

Several lessons emerged from the cleanup at the Weldon Springs site, the first of which was the importance of clearly defined responsibilities for regulators. A second lesson was the benefit to states of an on-site presence for the majority of cleanup operations. Third, if a remedy allows contamination to remain on-site, all of the details associated with the costs of the remedy should be carefully documented through the CERCLA process. Finally, all agencies associated with a cleanup should celebrate accomplishments jointly.

Issues remaining at Weldon Spring include detailed documentation of cleanup activities and lack of clear groundwater plume delineation. The Missouri Department of Transportation is planning to widen the road at the site, which will expose the roadbed and contaminated culverts; this work will

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<sup>1</sup> Further information on Weldon Spring is available at: <http://www.lm.doe.gov/weldon/Sites.aspx>

provide a low-cost opportunity for DOE to access the contamination in and around the culverts but there are currently no resources available for this work to occur. Another major challenge is maintaining institutional knowledge.

### **Remarks from Carl Spreng, Colorado Department of Public Health & Environment**

*Mr. Spreng's presentation is available at <http://www.nga.org/files/pdf/1105FFTFSPRENG.PDF>.*

During the late 1990's and early 2000's EM worked on an accelerated cleanup schedule at Rocky Flats to reduce the site footprint and associated liability costs.<sup>2</sup> Prior to 1995, a cleanup agreement was in place but the state and DOE spent the majority of their time in meetings to discuss missed milestones. The parties signed a new cleanup agreement in 1995 and a new contractor assumed cleanup duties; at that point real work began to occur. During the cleanup, Colorado and DOE developed a case study report to explain the decisions on final cleanup levels at Rocky Flats. The impetus for the report was questioning from environmental groups and members of the public on the variability of final radionuclide levels at different sites following closure. Among other conclusions, the report found large variation in the terminology used to describe cleanup levels among sites.

In 1995, DOE estimated cleanup duration and cost at 65 years and \$37 billion; actual cleanup was completed in 2005 at a cost of \$7 billion. Among other factors, an incentive-based contract for the cleanup contractor is credited as important to the early cleanup of the site.

EPA, DOE, and Colorado signed the final corrective action decision/record of decision (CAD/ROD) for Rocky Flats in September 2006. The CAD/ROD includes three descriptions of institutional controls (ICs); this language was also transferred to the Rocky Flats post-closure agreement as well as an environmental covenant with the State of Colorado. Colorado and DOE are in the process of reviewing the ICs, which can only be revised through a formal amendment process.

Several reports from the Government Accountability Office (GAO) provide a synopsis of the site's cleanup history:

- *Nuclear Materials: Removing Plutonium Residues From Rocky Flats Will Be Difficult and Costly* (September 4, 1992) [link](#)
- *Department of Energy: Property Management Has Improved at DOE's Rocky Flats Site* (December 28, 1995) [link](#)
- *Nuclear Cleanup: Progress Made at Rocky Flats, but Closure by 2006 Is Unlikely, and Costs May Increase* (February 28, 2001) [link](#)
- *Nuclear Cleanup of Rocky Flats: DOE Can Use Lessons Learned to Improve Oversight of Other Sites' Cleanup Activities* (July 10, 2006) [link](#)

Colorado settled its natural resource damages assessment and restoration (NRDAR) claims with DOE for \$10 million and received its funds through a Defense Appropriations bill. To date the state has used \$7 million for purchase of mineral rights parcels, weed control, seed collection and propagation, and acquisition of open space.

### **Remarks from Helen Belençan, DOE Savannah River Site**

The Savannah River Site (SRS) received a significant allocation of ARRA funds, which the site utilized for soil and groundwater remediation, transuranic (TRU) waste processing, and

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<sup>2</sup> Further information on Rocky Flats is available at: [http://www.lm.doe.gov/rocky\\_flats/Sites.aspx](http://www.lm.doe.gov/rocky_flats/Sites.aspx)

decontamination and decommissioning (D&D) activities. When SRS received its ARRA funding, DOE met with state and EPA regulators to review Federal Facilities Act (FFA) commitments and identify work scopes with high probabilities for success, greatest potential return on investment, and significant job creation opportunity. DOE increased its funding to regulators to ensure they had sufficient resources to keep pace with ARRA activities.

For EPA, a critical aspect of documenting environmental results is the use of performance measures; DOE staff at SRS were able to modify several reporting documents in order for EPA to report measurable environmental results.

### **Remarks from Colin Jones, DOE EM ARRA Office**

*Mr. Jones's presentation is available at <http://www.nga.org/files/pdf/1105FFTFJONES.PDF>*

DOE-EM is currently spending approximately \$200 million per month on ARRA programs and paid out nearly \$4.3 billion of EM's ARRA allocation of \$6 billion. Small business awards within ARRA funds equal \$1.8 billion. EM has promoted footprint reduction as one of its strategies for increasing the efficiency of the program; most ARRA footprint reduction work has occurred at Hanford and SRS. ARRA projects have benefited 30,000 workers in 12 states.

### **Roundtable Discussion of Footprint Reduction and Site Closure**

Following the panelist's remarks, FFTF members and panelists engaged in a dialogue around footprint reduction and site closure. Participants discussed several key points:

- DOE is considering an effort to remove EM sites from the EPA National Priorities List.
- Unused ARRA contingency funds are available for extra "buyback" scope; at ORR there is approximately \$100 million available.
- Savings from accelerated cleanup or footprint reduction have traditionally been difficult to retain within the EM program, as was the case with Rocky Flats.
- DOE must meet all regulatory requirements before a square foot qualifies as "reduced."
- At SRS, footprint reduction does not automatically mean that land is available for other purposes. The site boundary will remain the same.
- The buyback of projects with ARRA contingency funds begins with proposals from contractors to sites, followed by sites discussing project selection details with DOE headquarters.

### **Closing Thoughts from Panelists: Recommendations for Future Footprint Reduction and Site Closure Activities**

- The interpretive center at Weldon Spring is an excellent resource for keeping the site in the public's consciousness
- Working cooperatively is a key to success; include the consultative process as part of written agreements
- Communication and understanding of what is needed are key, then having the scope and focus on the right work at the right time.
- Cooperation is key.

**Update on Budgets, Waste Management, and Compliance - Frank Marcinowski, Acting Chief Business Officer and Deputy Assistant Secretary for Technical and Regulatory Support, US Department of Energy Office of Environmental Management**

Mr. Marcinowski's presentation is available at <http://www.nga.org/Files/pdf/1005FFTFMARCINOWSKI1.PDF>

Mr. Marcinowski noted that EM has made significant strides in recent years and would like its momentum to continue; however, the program faces some challenges. EM's appropriators have implied that the FY2011 budget will likely be the high-water mark, and the starting point for future annual budgets will be \$5.6 billion.

#### *Budgets*

- Maintaining a minimum-safe posture across the weapons complex accounts for approximately 40% of the EM budget. The remaining 60% will be reduced based on the final amount of funding as decided by Congressional appropriators.
- EM maintains an "integrated priority list" which ranks its projects in order of funding priority; projects connected to compliance milestones are ranked higher on this list. In 2010 EM met 95% of its enforceable milestones, and no milestones have been missed in 2011, but EM will have issues in 2012 and 2013. This will require working jointly with regulators to determine priorities.

#### *Waste Management*

- EM is currently reviewing DOE Order 435.1 (Radioactive Waste Management)<sup>3</sup>. For the first review phase, EM completed a complex-wide assessment<sup>4</sup>. For the next phase, EM will develop a draft revision and begin the public review process, which DOE will announce in the Federal Register.
- The 2020 Vision was predicated on a funding level which is now uncertain. Despite this, some sites believe they can complete work earlier than baseline estimates. Idaho and Nevada are two examples of sites which could complete major cleanup activities with appropriate funding levels or modest increases.

#### *High Level Waste and Spent Nuclear Fuel*

- EM's *Journey to Excellence Roadmap*<sup>5</sup> contains seven goals. Goal 1 is to complete the three major tank waste treatment projects within approved project baselines. Of the three projects, elements of the WTP could be completed early with a different funding profile. The schedule for treatment of liquid waste at Hanford and SRS could be advanced given a modest investment in tank waste technologies.
- EM's HLW storage activities continue as the Presidential Blue Ribbon Commission on America's Nuclear Future carries out its charge of evaluating the process by which the U.S. sites a central geologic repository.
- A recent GAO report<sup>6</sup> recommended DOE evaluate its HLW and spent nuclear fuel (SNF) facilities and long-term storage capacity, as well as any resources needed to extend storage duration. DOE has begun this evaluation but does not anticipate significant challenges, as the Department did not anticipate sending HLW or SNF to the repository at Yucca Mountain for at least a decade.
- EM does not anticipate challenges with the acceptability of waste forms currently being processed or planned given the uncertainty of licensing conditions at a future repository.

<sup>3</sup> Available at: <https://www.directives.doe.gov/directives/current-directives/435.1-BOrder-c1/view?searchterm=None>

<sup>4</sup> Available at: <http://www.em.doe.gov/pages/DOEOrder435.1.aspx>

<sup>5</sup> Available at: <http://www.em.doe.gov/pages/AsstSecMsg.aspx>

<sup>6</sup> Available at: <http://www.gao.gov/new.items/d11230.pdf>

This is because the borosilicate canisters produced at SRS and planned for production at the Hanford WTP are a highly robust final waste form. EM is reevaluating the limits on waste loading and considering revising the criteria to allow greater loading.

- Safety of SNF in light of the nuclear catastrophe in Fukushima, Japan, is not expected to be of concern, as most of EM's SNF inventory is in dry storage, with a small amount in wet storage at SRS. The SNF at SRS is also from research reactors rather than commercial facilities, and most has already been withdrawn from the reactors for at least a decade.

#### *Waste Incidental to Reprocessing (WIR)*

- Public comment on the evaluation of WIR for the West Valley melter was opened in March and closed during the last week of April.

#### *TRU Waste*

- EM anticipates it can accomplish its goal of 90% legacy TRU waste disposition by 2015. Over 11 million loaded miles of TRU have been shipped to the Waste Isolation Pilot Plant (WIPP) without a single incident of radioactivity release. 35% of original TRU waste assayed as LLW, which allowed greater capacity at WIPP.
- The capacity of WIPP appears to be satisfactory to handle even the most extreme estimates of waste volume.

#### *Low-Level Waste/Mixed Low-Level Waste (LLW / MLLW)*

- The Waste Control Specialists (WCS) facility is under construction in Andrews County, Texas. WCS anticipates the facility will be operational by the first quarter of calendar year 2012. Unlike the commercial disposal facility operated by EnergySolutions at Clive, Utah, the WCS facility will accept Class, A, B, and C waste.
- DOE began operations of the MLLW facility at Nevada Nuclear Security Site (NNSS). This state-of-the-art facility can accept all types of MLLW.
- DOE estimates 80% of LLW and MLLW will be disposed of on-site, with 10 - 15% disposed at the EnergySolutions facility. The remaining 5% will be sent to NNSS.
- With the recent closure of the Barnwell commercial disposal facility in South Carolina, there was a question of whether DOE would accept commercial waste at its facilities. With the expected opening of the WCS disposal facility, DOE does not believe this is necessary.
- Sealed sources are currently stored at Los Alamos National Laboratory (LANL), with some TRU waste sources disposed at WIPP. DOE is currently reviewing options for disposal of larger sealed sources; NNSS and WCS are possibilities.

#### *Greater-than-class-C (GTCC) Waste*

- Public meetings are underway for GTCC disposal, with a mix of opinions emerging on disposal pathways. In New Mexico, the community around WIPP is largely supportive of accepting GTCC at the facility, while areas north of the site (including Albuquerque) have expressed strong opposition.

#### *Mercury*

- According to the text of the mercury export ban, DOE is required to select and operate a "federal" mercury storage facility. DOE has identified WCS as the preferred alternative but since this is a commercial facility DOE is working on a possible lease-type arrangement in order to meet the text of the legislation.

Mr. Marcinowski provided the following additional information in response to questions from Task Force members:

- Most EM compliance agreements have a “force majeure” clause which covers non-compliance despite EM’s request to Congress for a compliant budget.
- New options for commercial disposal of DOE waste have not caused EM to rethink its position on on-site waste disposal, mostly due to cost and capacity considerations.
- EM is moving forward with approval for shielded containers which will allow emplacement of remote-handled TRU waste (RH-TRU) on the floor at WIPP. This will increase RH-TRU capacity at the facility.
- The hot isostatic pressing and final ceramic form of waste at Idaho is at least as robust, if not more so, than borosilicate glass; the technical evaluation is still underway.
- A final calculation of the reduced “hotel” costs across the complex achieved via ARRA footprint reduction projects may be available in 2012.

**Environmental Management in 2011 and Beyond- Dr. Ines R. Triay, Assistant Secretary for Environmental Management, US Department of Energy Office of Environmental Management**

Dr. Triay’s presentation is available <http://www.nqa.org/files/pdf/1105FFTFTRIAY.PDF>

Dr. Triay reviewed EM’s goals as described in the *Roadmap: Journey to Excellence*, noting that these goals are not subject to change depending on the final EM budget. EM is committed to improving its management practices and has embraced concerns expressed by GAO. DOE’s Office of Science is conducting a review of EM management practices, including site visits to SRS, ORR, and Idaho, and will brief Secretary Chu in June and publish a report in August 2011. The report will include recommendations for improving management of projects on GAO’s high-risk list. GAO recently announced that it will review EM’s project management reforms over the next two years to determine if it can be removed from the high-risk list.

EM is also committed to completing two major waste processing facilities. The first is the salt waste processing facility at SRS; DOE projects construction completion one year ahead of schedule, and within the approved project baseline. The second is the Hanford Waste Treatment Plant which is essential to treatment of Hanford liquid tank waste.

The efficiency of the EM program must improve, including containment of life cycle costs; DOE’s current environment liability is approximately \$250 billion. Reducing the legacy footprint of the weapons complex will help with this challenge by allowing EM to focus on concentrated contamination in smaller areas. ARRA helped EM achieve a substantial part of EM’s overall footprint reduction goal.

EM understands that its risk-based prioritization results in difficulties for sites without SNF or liquid tank waste (basically all sites except SRS and Hanford). EM is working with the [Consortium for Risk Evaluation with Stakeholder Participation](#) (CRESP), an independent academic entity, to review prioritization at Oak Ridge and determine if the CRESP model can provide assistance.

Dr. Triay briefly reviewed EM’s disposition strategies for SNF, TRU, and LLW/MLLW, including excess plutonium at SRS, which may be dispositioned in several ways depending on the final NNSA environmental impact statement (EIS). EM would prefer to dispose of excess plutonium as TRU waste due to cost factors. EM considers TRU waste disposition a success story, as by the end of 2012 only 8 of 31 original TRU waste sites will remain.

EM's state and federal legal obligations include 40 compliance agreements and EM budget requests are constructed to meet all enforceable milestones. Potential EM difficulties meeting 2011 enforceable milestones are mitigated by ARRA funds; however in 2012 most sites will complete their ARRA projects. As Frank Marcinowski mentioned previously, each site has a list of projects available for buyback with ARRA contingency funds. EM is currently evaluating compliance impacts under two possible funding scenarios:

- \$5.666 billion (at FY2011 CR level, a 7.5% reduction from FY2012 request)
- \$5.383 billion (additional 5% reduction from FY2011 CR)

EM created the 2020 Vision with the intent of focusing sites' concentration on accomplishing what would be possible beyond the regular EM work scope at the 80% confidence level. The Vision was also intended to convey the clear message to taxpayers that EM is a solid investment with significant returns.

Task Force members provided the following comments:

- Since it is clear that EM's goals as outlined in the *Journey to Excellence* will necessarily lead to reallocation of funds between cleanup sites, Tennessee is on record that it expects to receive a fair share of available funds. Tennessee is committed to working with EM to ensure that the final list of projects funded reflects Tennessee's priorities as well as those of EM.
- EM has accomplished a tremendous amount of work at Hanford, especially in groundwater remediation. One of the current challenges at Hanford is the plutonium finishing plant (PFP); regulatory agreements state that the PFP will be completed by 2016 but this deadline will be difficult to achieve.

Dr. Triay provided the following additional information in response to questions from Task Force members:

- Regarding the Advanced Mix Waste Treatment Plant at Idaho: ultimately the Secretary of Energy is responsible for the decision on an extension or open competition for a project contract. EM will brief the Secretary on the advantages and disadvantages associated with the contracting options. The field manager at Idaho believes that changing contractors would jeopardize 2015 completion.
- State regulators and others can assist EM during this difficult budget period by delivering a clear message on the importance of total dollars needed for cleanup and emphasizing that the costs of the environmental legacy of the Cold War have already been incurred; the only question is whether the country will pay enough now, or pay more later.
- As with most things in life which contain multiple tasks, in order to make progress on the weapons complex cleanup it is necessary to start and finish specific tasks rather than start multiple tasks but never finish them.
- Secretary Chu and Deputy Secretary Poneman are committed to working with EM and state regulators to ensure that delayed projects will not cause future problems.