



**Environmental Management Budget  
& Prioritization  
Committee Meeting Minutes  
Wednesday, March 25, 2011, 8:00 a.m.**

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**Members Present**

Norman Mulvenon  
Ron Murphree  
Bob Olson

**Absent**

Steve Dixon  
Jenny Freeman  
Ed Juarez  
Lance Mezga

**Others Present**

Dave Adler, DOE  
Jeff Crane, EPA (via speakerphone)  
Patsy Goldberg, EPA (via speakerphone)  
Chuck Head, Tennessee Department of  
Environment and Conservation (TDEC)  
Pat Halsey, DOE  
Pete Osborne, ORSSAB Support Office  
Tyson Ramsey, Pro2Serve

**Budget Scenarios**

Mr. Adler began the meeting by reviewing six scenarios for funding and completing various cleanup projects in Oak Ridge (Attachment 1). The scenarios were generated using a program called a Dynamic Planning Model run by Mr. Ramsey that can take a work breakdown structure and split it incrementally from a high level overview of work to individual projects. It can recognize and maintain a logical sequence of work and can provide about 80 percent of the information needed to make an informed decision. The results still require human analysis, Mr. Adler said. It can evaluate the relative merits of projects at different funding levels, and it helps the user understand the importance and ramifications of delaying a project. The dollar figures associated with each scenario are very general and should only be used as broad guidelines about how annual funding allocations will affect different work schedule strategies across time. All scenarios are still draft and are fraught with some uncertainty, so don't over-read their finality, he said.

**Unconstrained Budget Scenario**

This scenario brings funding for the Oak Ridge Environmental Management (EM) program close to \$1B until FY 2015, when it begins to decline. It gets the work done quickly, but it's hard to ramp up to that level of effort. Under the American Recovery and Reinvestment Act, though, EM demonstrated an ability to do that to some degree. The drop in funding is precipitous, which also would be challenging. Even with unconstrained budgets, it will take some time to complete the program, with most work ending in the 2030s timeframe. The scenario is driven by the reality that some Oak Ridge National Lab (ORNL) and Y-12 National Security Complex facilities cannot be transferred to the EM program until the 2020 timeframe. That premise is probably challengeable, although it is hardwired into the model. It could be moved up some, but there are some unchangeable realities to it.

The upper right hand corner of the chart shows a total cost of \$16.8B. About \$4B of that represents dollars already spent; "to go" costs will be shown in later iteration. Total project cost is also a function of how long the program takes, so earlier transitions from ORNL and Y-12 will reduce costs. Keep about \$12B in mind for this scenario, Mr. Adler said.

If you look at the colors, you'll see the overwhelming color under the curve is associated with decontamination and decommissioning (D&D) projects. Our remedial action assumptions assume that we never dig up the Melton Valley or Bethel Valley burial grounds and that there are relatively low costs for groundwater remediation activities. If the burial grounds are dug up it will increase. The bottom line is that D&D of facilities is a big expense, so in order to keep program going, we have to get started on big D&D projects, most of which overlie large areas of contamination.

Mr. Crane: The environmental media assumptions may be overly optimistic, and there are some areas at Oak Ridge that are not encumbered by D&D to get to media. For example, at Y-12 there's 81-10, and at ORNL there's Bethel Valley.

\$550M Budget Scenario—This scenario tries to get transuranic (TRU) waste, East Tennessee Technology Park (ETTP), and the Uranium-233 project done as quickly as possible and then get ORNL and Y-12 done quickly after that. The chart affords easier workforce management. It shows that if you knock out TRU and ETTP and U-233 in eight to 10 years, you can fit in a lot of other work. The scarlet line represents ETTP base operations. It's pretty thick, so when we get that done it goes away. That's important to headquarters. The same goes for TRU and U-233, where we have \$20M each for "standing army" costs. The total budget in this scenario is about \$18B; minus the \$4B already costed, it's about \$14B in "to go" costs. This scenario gives you about a billion in savings over the life of the program.

ETTP Last Scenario—This is an extreme case no one is really considering. It was done to illustrate the value of mortgage reduction. It assumes \$450M per year in funding. One point is that if you put ETTP on hold, the scarlet band persists, and total project costs escalate by a couple of billion, which is significant. Some people say Oak Ridge is being judged by its ability to get ETTP done, but this slide doesn't capture that.

May 5 or EPA/TDEC Priorities Scenario—This is a scenario developed to capture project sequencing made about a year ago and then refined, stemming from the regulators' proposed acceleration of a few really big projects at ORNL and Y-12. Basically, it shows that we don't spend as much as would like to in near term, but in the 2014–15 timeframe it has a very high funding level, then drops down, then back up again. It's not an attractive project funding curve.

Mr. Crane: Alpha 4 and Alpha 5 are both being done in one of the peaks, so by reevaluating to do the work going from west to east, starting with Beta 4, it would smooth out the peak.

MSRE Just in Time for WIPP Closure—This chart is basically a \$450M-per-year sequence pushing the Molten Salt Reactor (MSRE) work out as far as possible without missing the opportunity to dispose of wastes at the Waste Isolation Pilot Plant.

\$600M Case—In some ways this is an ideal scenario that we should see this kind of money. This is what we think represents both the environmental work the regulators would like to see accelerated while still maintaining momentum on projects DOE wants to focus on.

There is general agreement that getting ETTP done is a high priority and general agreement that to deal with mercury we have to get going on D&D at Y-12. We are finished by 2037 on most work, so it almost meets current milestones. The funding peak at the end is for closing the last landfill.

Mr. Crane: \$600M is the case John Eschenberg laid out at the workshop, so we are trying to work with DOE on achieving this.

## **Regulator Priorities for Appendixes E and J**

Mr. Adler next moved to an Excel file showing EPA and TDEC priorities for Appendixes E and J of the Federal Facility Agreement (FFA) (Attachment 2).

Mr. Adler said that DOE went into the Dynamic Planning Model to pull out unchangeable costs, then took dynamic (schedule-discretionary items) and placed them in a rank order. This table is the output of that effort.

It is sort of a consensus output, but there are some discussions “at the margins”. It starts with the assumption of getting key ETTP work done as a high priority. Next the regulators list the MSRE flush and fuel salt engineering study as a high priority. DOE agrees that getting the plan done is important, but doing the work is another matter. The general feeling at DOE is that the salt is safe where it is for awhile. DOE is more concerned with hot cells in the middle of ORNL than with the salt.

All projects in white rows are important and under current FFA milestones. All rows numbered with zeros are current year milestones and are therefore irrelevant to other prioritization.

Following the zeros are rows with ones next to them, which represent continuation of ETTP efforts. They are high-priority projects. At extremely low funding allocations, the regulators would take some dollars out of this area for ORNL and Y-12 work, but DOE would say no because of business case/mortgage/workforce considerations.

While rows listed as a 3 or 4 are essentially the same priority level. The regulators put K-27 high risk equipment removal as a priority 3, so they believe it’s OK if it might take longer to finish some other work.

Mr. Crane: Shaded rows are projects not listed as Appendix E milestones. We advocate these being identified as milestones and included in the budget request. When funding is stable, DOE and the regulators ARE usually in agreement; when funding is unstable, disagreement accelerates.

Mr. Adler said that further down the list, working on Beta 4 is listed as a priority. It’s the westernmost facility and it’s over the west end mercury area, so it’s a logical first step. Work would start with legacy material disposition.

The next project is Bear Creek Burial Grounds. The regulators have pressed DOE to work on the burial grounds and surface water issues. DOE moderately supports some work on this. An example of that commitment is the DOE response to ORSSAB’s recommendation requesting a table of possible remedial actions to mitigate releases of contamination from Bear Creek Burial Grounds.

Priority 4 concerns the Upper East Fork Poplar Creek 81-10 area (the old mercury recycling area). It’s relatively far east but under a building to be D&D’d. It’s in an area we characterized last year. It has mercury problems and represents a large volume of soil. It’s something regulators have pushed hard to start on, but it’s relatively expensive at \$10–\$30M. So at that funding level, in tight times the project would compete with Beta 4. If DOE had to choose, it would choose Beta 4.

Mr. Crane: You might note that milestones for Bear Creek Burial Grounds are consistent with ORSSAB recommendations.

Ms. Goldberg: How current is the estimate for 81-10? If it’s not going to cost that much, Beta 4 and 81-10 might be worked concurrently.

Mr. Adler said that the next project is Melton Valley onsite plume characterization. “Peek-a-boo” detections in the valley are all below drinking water standards, but across-river problems have prompted the regulators to urge DOE to further investigate Melton Valley. DOE, however, is trying not to overreact by drilling a lot of new wells on this side of the river. It’s also not as high a priority as ORNL central campus work.

Mr. Crane: There is considerable uncertainty associated with the plume migration and characterization. There are short pathways to surface water, and now, with the across-the-river issue there are hints of longer pathways, so we need to know more about the plume...especially since there are offsite concerns. A phased approach is fine, but it’s important to get started characterizing this, and it’s important that characterization is built into the EM program.

Mr. Adler said the regulators would like to get characterization going in west Bethel Valley as well. DOE agrees, but it is not as important for DOE as the ORNL central campus.

Below this in the Excel table is a lot of D&D work. Mr. Adler said that a key discussion between DOE and the regulators revolves around the comparison of D&D work versus environmental media. DOE puts D&D above projects like DARA (disposal area remedial actions) soils. DOE focuses on mission and site workers versus environmental media restoration.

Mr. Crane: The May 5 letters referenced in the scenarios identified our priorities. A general premise is that we need to maintain a cleanup program that sustains both D&D and environmental media, and doesn’t just postpone environmental media way out into the future. There should be a balance. We believe the CRESP (Consortium for Risk Evaluation with Stakeholder Participation) analysis will help. Environmental contaminants are not in a building, they’re in the environment and are migrating and should not be deferred 10 to 15 more years. The regulators recognize that Beta 4 and Alpha 5 are high priorities, but we need to work on environmental insults that are already migrating.

Mr. Adler said that DOE believes establishment of a second EM Waste Management Facility is an additional relative priority. We need to move out smartly on getting more capacity. We have rough projections that the current facility could be full in 2018–19, so we can’t get into a situation where there’s no place to put relatively benign materials. Shipping offsite is a bad situation because it’s so cost inefficient. It’s a hugely sensitive matter, especially with the state. DOE proposes that decision making be made in the next few years.

Mr. Adler pointed out that row 39 is where the discretionary and unmilestoned items end.

Building 3019 (U-233 project) is not on the list because DOE considers it a fixed item and not open to discussion. It’s not schedule discretionary, although presumably it is. Considering it a fixed item was a decision made at a level higher than Inés Triay (DOE Assistant Secretary for EM).

Mr. Crane: If something is not on the list it’s because it’s not a CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) project. Ultimate D&D of Building 3019 will be.

Mr. Adler said that the input DOE needs from ORSSAB is on high-level priorities, such as, do you support fastest possible disposition of U-233?

Mr. Olson said that the 4500 Area Gaseous Waste System (priority 35) is focused on getting the central stack down, but there are other parts to it. His personal preference is to get rid of stack. Mr. Adler said that the other parts (the buildings around the stack) may not be in Excel table, but ORSSAB should not work to that level. DOE does put this as a relatively high priority for ORNL. Mr. Head asked if the regulators are in agreement. Mr. Adler said that they are probably not. It

would be useful for DOE to give regulators a better knowledge base about it. Mr. Crane noted that the core teams have discussed it. Mr. Adler said that the general discussion was about common sense...if there's really a potential for release, it's a problem, but if it's just curies in buildings it's not. Mr. Crane responded that fixed contamination in buildings is lower in the priority list, but EPA is advocating this work.

Mr. Olson: I'm surprised how revealing and informative the table is; it's a great thing to have done. Mr. Adler agreed. The EPA/TDEC table is a great way to provoke conversation, but you can't split hairs when looking at items right next to each other.

Mr. Crane: Chapter 5 of the Federal Facilities Environmental Restoration Dialogue Committee report (the "Keystone" document), explains the challenge of what comes first: budget or milestone? Mr. Crane offered to send the chapter to ORSSAB staff to send out to attendees. He noted that all of EPA's gray shaded rows are proposed milestone items that would require about \$600M in annual funding. If you look at column J in the spreadsheet, every date is a milestone EPA wants added to 2013 budget request.

Mr. Murphree: ORSSAB generally agrees that postponing environmental media and groundwater work is something that has to be addressed. He asked what DOE's response was to EPA wanting to milestone all this work. Mr. Adler said that DOE's response will be that we will not milestone work that does not have funding identified. We do budget and then milestone, and we're under direction not to milestone before budget. Also, there's no evidence, historically, that the presence of milestones has an impact on funding levels. DOE would rather pay fines than commit to \$300M in milestone work. Putting emphasis on getting work done is more effective than focusing on milestones.

#### **Action items**

##### *Open*

1. Mr. Ramsey will email charts to everyone.
2. Mr. Crane will email Chapter 5 of the Federal Facilities Environmental Restoration Dialogue Committee report to staff.
3. Mr. Adler will develop a work plan for the committee. *Carryover*

##### *Closed*

The meeting adjourned at 10:10 p.m. No next meeting time was established.

Attachments (2) are available through the ORSSAB support office.

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