DOE's Failure to Develop and Use Innovative Technologies to Clean up the Nuclear Waste Legacy

November 1, 2000

The Honorable Bill Richardson
Secretary
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Richardson:

I am writing to you regarding the Department of Energy's (DOE) failure to develop and use innovative technologies to reduce the cost and speed the clean up at several of the Department's nuclear waste sites. Attached is a Committee staff report entitled "Incinerating Cash: The Department of Energy's Failure to Develop and Use Innovative Technologies to Clean Up the Nuclear Waste Legacy" (Incinerating Cash Report). The Incinerating Cash Report details the Committee's extensive oversight of DOE's technology development and deployment problem, and also contains the findings of the Committee's March 2000 survey of technology deployment at several of DOE's largest nuclear waste sites.

As you know, over the past 10 years the Office of Science and Technology (OST) -- within DOE's Office of Environmental Management (EM) -- has spent $3.4 billion to develop innovative technologies for use at DOE waste sites. The Committee's oversight efforts, detailed in the report, demonstrate that OST has squandered hundreds of millions of dollars on technologies that have not proved useful for EM's cleanup mission, and EM and its cleanup contractors have failed to effectively use the useful technologies OST has produced.

The Incinerating Cash Report identifies several small companies that have developed cost-saving technologies with OST funds, but continue to encounter non-technical barriers that prevent deployments at DOE waste sites. For example, based on testimony from the Oversight and Investigation subcommittee's May 1999 hearing, DOE and OST invested $13 million over 10 years to develop Waste Inspection Tomography (WIT) -- a cost-saving technology for non-intrusive characterization of transuranic waste drums. DOE now has access to two mobile, full-scale, and operable WIT units that are ready to be transported to more than 20 DOE sites where transuranic wastes are located. However, WIT is not currently deployed for use at any DOE site. EM's failure to deploy WIT is particularly notable since EM has recently tripled its shipments of transuranic wastes from six major DOE sites to the recently opened Waste Isolation Pilot Plant (WIPP) site. EM's failure to deploy this promising technology serves as just one example of the substantial graveyard of OST technologies that EM and its site...
have failed to deploy, even though the technologies are viable and available.

The report also details the findings of the Committee's March 2000 survey of DOE contractors' use of commercially available OST-funded technologies. The survey found that at many DOE sites, including the Rocky Flats site, the Hanford site, and the WIPP site, few, if any, commercially available OST-funded technologies have been used to date, and relatively few have been identified for potential use in future cleanup plans.

For instance, as noted above, the WIPP site is finally open and receiving transuranic wastes from some of the 20 DOE sites where these wastes are located. However, based on its response to the Committee's March 2000 survey, after 10 years and $3.4 billion spent by OST on technology development, Westinghouse did not report the use of a single commercially available OST-funded technology for characterization, transportation, and disposal of transuranic waste.

Similarly, at Hanford's Office of River Protection (ORP), none of OST's commercially available technologies were reported to have been used for the storage, characterization, and retrieval of Hanford's 177 underground tanks containing radioactive wastes. This is particularly alarming, because DOE already has spent $4 billion on tank farm operations to date (not including waste immobilization activities), and plans to spend an additional $13 billion on tank farm operations over the next 70 years. However, based on CH2M Hill Hanford Group's response to the Committee's March 2000 survey, the commercially available technologies funded by OST have provided no significant use for characterizing or stabilizing the Hanford radioactive tank wastes to date, and, more important, are unlikely to be useful in the future.

At the Rocky Flats site, only seven commercially available OST-funded technologies have been used to date, and fewer than a dozen are projected to be used in the future. DOE's contractor at Rocky Flats, Kaiser Hill Company, plans to complete cleanup activities and close the site by 2006. At closure, a total of $9 billion will have been spent at Rocky Flats. Unfortunately, according to Kaiser Hill Company's response to the Committee's March 2000 survey, it is unlikely that any substantial overall savings will occur at Rocky Flats from the use of OST-funded technologies.

These and other findings in the Incinerating Cash Report reflect a vacuum of leadership at DOE over the years, millions wasted on technologies DOE will never use, and a lack of commitment today by the Department and its contractors to deploy the promising technologies developed by the OST program. The current deployment rate of OST's commercially available technologies is marginal compared with the pace of cleanup at several DOE sites, and DOE will not likely achieve its goal of $20 billion in life-cycle cost savings from the use of OST technologies. The Department and its contractors must finally demonstrate real leadership and a commitment to eliminating all arbitrary barriers to the deployment of the cost-effective technologies OST has funded.
I urge you to review the report carefully. If you have any questions, please contact me, or have a member of your staff contact Dwight Cates of the Committee staff at (202) 226-2424.

Sincerely,

Tom Bliley
Chairman

Attachment

cc: The Honorable John D. Dingell, Ranking Member
    The Honorable Fred Upton, Chairman
    Subcommittee on Oversight and Investigations
    The Honorable Ron Klink, Ranking Member
    Subcommittee on Oversight and Investigations
    The Honorable Joe Barton, Chairman
    Subcommittee on Energy and Power
    The Honorable Rick Boucher, Ranking Member
    Subcommittee on Energy and Power

Response

Response Not Received or Response Not Currently Available

Related Documents and Issues

Energy

Department of Energy

Oversight

DOE-OST