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Negotiating Equity for Management of DOE Wastes

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NEGOTIATING EQUITY FOR MANAGEMENT OF DOE WASTES

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INTRODUCTION

One important factor frustrating optimal management of DOE-complex wastes is inability to use licensed and permitted facilities systematically . Achieving the goal of optimal use of DOE's waste management facilities is politically problematic for two reasons. First, no locale wants to bear a disproportionate burden from DOE wastes. Second, the burden imposed by additional wastes transported from one site to another is difficult to characterize. To develop a viable framework for equitably distributing these burdens while achieving efficient use of all DOE waste management facilities, several implementation and equity issues must be addressed and resolved.[1] This paper discusses stakeholders and equity issues and proposes a framework for joint research and action that could facilitate equity negotiations among stakeholders and move toward a more optimal use of DOE's waste management capabilities.

STAKEHOLDERS

Stakeholders are those with an interest (stake) that can affect or be affected by decisions made by legal authority. For DOE's waste management system, these stakeholders include: (1) those who have legal control over DOE sites (i.e., headquarters and operations offices); (2) local, state, and other federal agencies with an interest in (and, in some cases, regulatory authority over) land use, environmental, and health and safety issues; (3) citizens living adjacent to donor and recipient sites and waste transport corridors[2]; and (4) workers employed in transport, handling, storage, treatment, and disposal of wastes (and the labor unions that represent them).

DOE's programs and activities are already subject to substantial oversight by a variety of stakeholders. Moreover, DOE's authority is shared significantly with other federal agencies and state governments. This web of institutional relationships and the statutory and regulatory mechanisms underlying them is complex and makes strategic planning for DOE waste management difficult and challenging.

OVERVIEW OF EQUITY ISSUES

Assume that it is hypothetically possible to arrive at a uniform notion of cost-risk-benefit transfer "dollars" that could be exchanged among stakeholders to compensate for the *net* costs-risks-benefits associated with the reconfiguration of wastes from site-to-site. A conceptually simple approach to assessing costs, risks, and benefits would differentiate between direct and indirect effects associated with both normal conditions and accident or upset conditions.

Costs. Direct costs under normal conditions are those that directly relate to waste management programs and activities — construction and operating costs for treatment, storage, and disposal (TSD) facilities, monitoring and surveillance costs, fixed site and transport corridor emergency preparedness costs[3], and environmental and health protection costs, among others. Direct costs under accident or upset scenarios are those that must be borne to bring the affected area back to pre-upset conditions — cleanup of any environmental contamination, provision of health or medical services, and liability claims, if any.

Indirect costs result from direct impacts. Under normal or upset conditions, they include, among others, opportunity costs to stakeholders, valuation changes resulting from waste management activities, and stigma costs. Under upset conditions, however, these impacts are exacerbated due to actual releases, any subsequent health or environmental consequences, and the impacts of those consequences on stakeholder well-being.[4]

Risks. It is possible, although difficult, to categorize DOE wastes in terms of greater or lesser risk to different receptors under normal and upset conditions. Some DOE wastes have disproportionate impact on worker health and safety (e.g., hazardous and mixed wastes, process wastes, liquid LLW), while others may impose their most adverse impacts on the general public (e.g., incinerated hazardous or mixed wastes) or the environment (e.g., TRU wastes, high-activity LLW).

Benefits. Direct benefits under normal conditions would include, among others, dollars expended in the affected jurisdictions that were directly related to the exchange and subsequent waste management activities; direct benefits under upset conditions would include remediation benefits and compensation. Indirect benefits may be considered as dollars expended in those same locations on programs and activities that led to the generation of the wastes and the economic development that has accompanied the direct expenditure of

dollars — the technology R&D institutions, the environmental remediation firms, R&D at universities and elsewhere, and the support infrastructure that serves DOE missions and related development (e.g., indirect jobs). Other potential benefits may be less easy to quantify but need to be considered in any net costs-risks-benefits assessment (e.g., outstanding educational systems, cultural benefits, and the knowledge that wastes have been properly disposed).

RESEARCH AND ACTION

An interactive, iterative, and integrated research and action plan could be implemented to facilitate negotiation of a waste management strategy. This plan calls for close coordination and cooperation between *research* (to identify knowledge gaps, fill those gaps, and identify and assess policy options), and *action* (to advise the research team, make interim decisions about which policy options to pursue, and implement a negotiating process and any results of those negotiations).

Although such a plan could address the entire DOE complex, a more modest preliminary application is proposed — equity negotiations for selected waste(s) for two DOE sites. By limiting the initial application to just two DOE sites, it should be possible to explore and improve our understanding (both in a research and applied policy context) of the complexity and feasibility of equity negotiations, and this improved understanding could inform and be applied to future and possibly expanded DOE efforts.

A conceptual schedule of activities and identification of which team (research or action) should have primary responsibility for satisfying the activity is as follows:

1. Identify critical knowledge gaps and fill them [e.g., improved understanding of relevant institutional environments, potential waste streams to be considered for negotiation, availability of existing and planned TSD capabilities, stakeholders, ongoing negotiations, and existing and alternative negotiating approaches]. This activity would be addressed by the research team.
2. Identify implementation preferences, including identity of DOE sites, waste stream(s), principal and secondary stakeholders, and negotiating framework. This activity would be addressed and completed by the action team.

3. Prepare refined and expanded analysis outlining potential equity negotiation for DOE sites, based on preferences selected by action team in previous phase. The research team would undertake this activity and would identify any difficulties or disadvantages of the preferences selected by the action team and offer alternatives, if needed.
4. Implement the selected equity negotiation. This activity would be accomplished by the action team, with assistance where needed by the research team.
5. Document the equity negotiation. This activity, accomplished by the research team, with review by the action team, would occur on a periodic basis throughout the negotiation endeavor and would culminate in a final report that would summarize the overall effort, identify lessons learned, and make recommendations regarding any future equity negotiations for DOE waste management.

This research and action plan is based on the assumed desirability of an optimal waste management strategy for DOE, the need to incorporate stakeholders in the development of such a strategy to address equity concerns, the need to take account of relevant institutional environments in which the development of such a strategy is necessarily embedded, and the empirical and institutional difficulties of assessing net impacts accruing to different stakeholders of alternative waste management strategies.

It is obvious that additional research and understanding are needed to develop an optimal waste management strategy. But research and action could proceed simultaneously — there is no such thing as perfect and complete knowledge that could guarantee successful negotiations, and without action, society's ability to know and understand, and to solve pressing societal problems, is likewise limited.

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