

MAINTAINING EFFECTIVE WORKING RELATIONSHIPS WITH REGULATORS DURING REMEDIAL ACTION

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The U.S. Department of Energy's Fernald site has finalized Records of Decision establishing the required remedial actions for the entire facility. It is now actively implementing its sole mission of environmental restoration site-wide. Fernald's regulators, including the U.S. and Ohio Environmental Protection Agencies, have maintained a very active role as the project has progressed through remedial design and into remedial action. This paper will detail from the perspective of Ohio EPA (OEPA), their approach to oversight of the remedial process at Fernald. It will present from the perspective of both DOE and OEPA, successes and lessons learned at Fernald in establishing a working environment that allows early identification and resolution of issues. The paper is intended for facilities, especially Federal facilities, which will be implementing remedial action on a large scale. Its conclusion is that it is impossible to implement a major remedial action without a proactive relationship with regulators. Further, it will conclude that the ideas and methods for establishment of an effective, long-term working relationship with regulators used at Fernald should be considered at other remedial sites.

INTRODUCTION

The Fernald Environmental Management Project (FEMP) is a U.S. Department of Energy (DOE) facility located in southwestern Ohio approximately 18 miles northwest of downtown Cincinnati.

The primary mission of the 1050 acre FEMP during its 37 years of operation was the processing of feed materials to produce high purity uranium metal. These high purity uranium metals were then shipped to other DOE or U.S. Department of Defense facilities for use in the nation's weapons program. Production ceased in 1989 and the facility was officially closed as a production site in 1991. As a consequence of production activities, the structures and environmental media at the site became contaminated with a variety of radiological and chemical hazardous constituents. Because of this contamination, the site was placed on the National Priorities List in 1989. In 1991, the facility's mission was redefined solely in terms of remediating and restoring the site. The cleanup is being managed by Fluor Daniel Fernald along with its teaming partner, Jacobs Engineering Group.

An Amended Consent Agreement (ACA) between DOE and the U.S. Environmental Protection Agency divided the site into Operable Units. The ACA also set forth the process for characterizing the site and, ultimately selecting and implementing remedial action for each of the Operable Units. These legally enforceable requirements set the stage for what is now over 12 years of continuous and very direct interaction between DOE, its contractors, and the regulators. As will be discussed in this paper, the FEMP's progress in implementing cleanup has been directly linked to the above parties ability to work proactively together.

The Ohio Environmental Protection Agency (OEPA) has been a very active participant in the remedial process at Fernald. The OEPA has regulatory authority for management of mixed waste at the FEMP as well as Clean Water Act and Clean Air Act authority. This includes storage, treatment and disposal of these mixed waste streams. A series of legally enforceable OEPA Directors Finding and Orders (DF&O) have integrated various RCRA monitoring and closure requirements with the CERCLA remedial process. In part because the CERCLA process is being used to satisfy many of OEPA's RCRA requirements, the OEPA has become an active day-to-day participant in the CERCLA remedial process. In addition, the public has come to view OEPA as its independent oversight advocate for all aspects of the cleanup including the CERCLA process.

In its role, OEPA has participated fully in the Remedial Investigation/Feasibility Study process and formally concurred with each of the sites five Operable Unit Records of Decision. Involvement has continued with review and approval participation in remedial design and work plan development followed by active field oversight during remedy implementation.

To date, from an overall perspective, the FEMP has been very successful in establishing and implementing a remediation path forward. Remedial actions have been established in a series of Record of Decisions for the entire site. Generally speaking, the site is complete with characterization, remedy selection, remedial planning and is actively implementing cleanup in the field on a sitewide basis. This is not to say, as will be discussed, that there have not been "bumps in the road." There have been. In general, however, they have been exceptions to the rule. Again, these successes have required an effective working relationship between the FEMP and its regulators. The rest of this paper will describe the major elements of how this relationship has been developed along with examples of related achievements. As appropriate, the paper will also present lessons learned associated with instances when the working relationship was not as effective. While the authors believe these points are applicable to any remedial action, they are particularly relevant to a large Federal facility (e.g. DOE installation remediations).

A more traditional discussion of the regulated/regulator interaction tends to focus on the resolution of individual problems or issues. Typically, these discussions suggest a particular issue or conflict resolution model to attack those individual issues. The authors support any method used to solve problems to the mutual benefit of the involved parties. The focus of this paper, however, is on more of a "macro" perspective. More specifically, this paper places its focus on the establishment of a positive long-term relationship between a cleanup program and its regulators rather than on individual issue resolution. The basic theory behind this approach is that when a working relationship is established where the mutual parties recognize each other as partners in a process, many problems can be avoided in the first place. When problems do arise, resolution is greatly facilitated in an environment of trust, cooperation and familiarity.

Once an effective working relationship is established, it must be maintained. As such, the authors suggest that the reader view the following ideas as a whole "package." That is, all of the ideas must be employed together to maximize effectiveness over the long-term.. Examples of associated success are given for each of the following ideas but the authors wish to stress that

progress at Fernald has been attributable to all of the factors that are discussed in the following pages.

WAYS TO WORK EFFECTIVELY TOGETHER

Establish a “Partnering” Approach to Remedial Decision Making

Admittedly, this point is somewhat philosophical in nature but the authors believe it is an absolutely essential first step in establishing a successful and truly productive working relationship. This point is also the foundation from which all other suggested actions in this paper derive. It is quite simply an agreement and a willingness to recognize by all parties with action that the responsible party and the regulators are partners, with common objectives, in cleaning up a facility.

This means the responsible party and the regulators work together from the earliest stages to develop and implement cleanup decisions. More commonly the responsible party develops an approach and then defends it to the regulators and the public. This may work fine for small sites and/or easy decisions but can exacerbate resolution of difficult issues. This approach almost universally results in an “us” versus “them” mentality. This in turn makes success more difficult.

Historically, there were no real efforts at establishing a partnership between the DOE and the regulators at Fernald. Through the 1980s and into the 1990s, the interactions between DOE and its regulators could fairly be described as adversarial and this period included a lawsuit by the State against DOE. Efforts to complete the Remedial Investigation process sitewide also languished over a period of approximately six to eight years. A major turning point was when DOE began to acknowledge the vital role that OEPA had to play in the overall process of cleaning up the Fernald site. This is noteworthy because OEPA, as stated above, had direct regulatory authority only for the site’s mixed waste - a fairly small population of materials. DOE gradually recognized, however, that it could not be successful without the full participation and support of OEPA particularly as it related to achieving and maintaining public confidence in the cleanup. This new attitude was reflected, as an example, in DOE’s acceptance of OEPA’s review and approval of all regulatory deliverables under the CERCLA process. This was despite the fact OEPA was not a signatory to the ACA.

For its part, OEPA began to work with DOE and its contractor, Fluor Daniel Fernald, to integrate satisfaction of RCRA requirements into completion of the CERCLA process. This resulted in the above-referenced DF&Os. One DF&O allowed sitewide CERCLA groundwater characterization efforts to satisfy RCRA groundwater monitoring requirements for approximately 50 Hazardous Waste Management Units (HWMUs). Another allowed CERCLA remediation to satisfy RCRA HWMU closure requirements. In agreeing to these DF&Os, OEPA ensured that regulatory objectives were achieved while allowing DOE to satisfy those requirements in a streamlined, cost-effective manner.

Another example of success in this area at Fernald rests in the finalization of Records of Decision (RODs) for all five of the site’s Operable Units. Collectively the RODs establish a “balanced approach” to waste disposal. This calls for a smaller volume of more highly contaminated wastes to be disposed offsite with a larger volume of wastes demonstrating lower levels of

contamination to be disposed in an Onsite Disposal Facility (OSDF). DOE, Fluor Daniel Fernald, and the regulators evaluated together with the public the complex issues concerning waste disposal including protectiveness, funding constraints, state equity issues and stakeholder acceptance. The result was public acceptance of the FEMP's overall path forward including the potentially controversial construction of the OSDF over a sole source aquifer in close proximity to residential areas.

The ability of responsible parties and regulators to effectively make decisions together requires a common goal: expeditious implementation of a protective remedy. It also requires recognition that the respective parties have differing and valid roles to play in the decision making process. The "balanced approach" again offers an illustrative example of this point. Ideally, the OEPA would have preferred all contaminated materials to be disposed offsite. In fact, a State of Ohio regulation prohibiting construction of a disposal facility over a sole source aquifer had to be waived to allow construction of the OSDF. In supporting an OSDF, OEPA recognized, the technical, economic and political challenges of developing an implementable remedy. Conversely, DOE recognized OEPA's responsibility to independently ensure for the public the protectiveness of the selected remedies. As such, DOE agreed to a number of conservative design and operational measures required by the regulators. These measures not only help ensure protection of the sole source Great Miami Aquifer, but also helped maintain public support for the OSDF.

Agree on The "Big Picture"

The message of this point is simple: you can't implement a major federal facility cleanup until there is agreement among the responsible party, the regulators and the public on the direction the remedy will take. If there is uncertainty or lack of consensus on the elements of the remedy, remedial prioritization or implementation of work, extreme efforts should be made to develop consensus.

What defines the "big picture" is obviously somewhat site specific. At major federal facilities undergoing partial or sitewide CERCLA remedial action, a few examples of what could constitute "big picture" issues are offered. The first is developing a reasonable schedule for completion of remedial activities no matter what stage of the CERCLA process the facility is in. The responsible party needs to accept that the regulators require certain enforceable milestones to ensure adequate progress in the cleanup. The regulators must recognize that insisting on milestones that are overly optimistic or even unrealistic, will likely be counterproductive.

Another big picture question is what remedies will be selected. Obviously, there is a very clearly defined remedy selection process outlined in the National Contingency Plan. The message here is that there should be an active dialogue between the responsible party, the regulators and the public from the earliest stages of the RI/FS process designed to promote consensus on the remedial path forward. Application of this concept at Fernald lead to general acceptance by involved parties to what for some were the difficult compromises associated with the "balanced approach".

Once the remedies were selected at Fernald, there was also the question of prioritization of work. Again, all parties worked together to develop mutually agreeable remedial priorities. This is particularly important for large federal facility cleanups where the scope of cleanup is large and funding constraints are very real. This allows effort to be focused on what is judged collectively to matter the most. This is a vital part of the process of agreeing to reasonable implementation schedules as discussed above. Once priorities have been set along with associated schedules, the responsible party must do everything in its power to observe these priorities. This includes making best efforts to secure adequate funding. With agreement on remedies and work prioritization, focus can shift to effective cleanup planning and implementation. The result at Fernald has been a project cost and schedule baseline that has reduced the cleanup schedule by over ten years and cost by nearly \$3 billion. Congress has directly recognized this joint effort by placing Fernald in the Defense Facilities Closure Fund. This in turn has helped to stabilize funding for the remediation efforts.

Finally, it is suggested that efforts be made to understand what issues in implementing cleanup will be of significant concern to the respective parties. Further, it is suggested that these efforts be based on direct communication at the beginning of and during remedial design/planning efforts. As an example at Fernald, OEPA has been particularly concerned with contaminated stormwater controls to minimize offsite releases. Failure to fully recognize by DOE this focal issue has led on several occasions to delays in approval of deliverables and subsequent field work. The parties don't necessarily have to agree on the relative significance of these issues but the issues do have to be acknowledged. Again, this is a two-way street and is an extension of a willingness by the respective parties to consider each other partners in the cleanup.

Focus on Maintaining the Working Relationship

As with any professional working relationship, maintaining an effective working relationship between responsible parties and regulators on a major cleanup requires work and constant attention. Obviously, the authors feel that utilization of the above concepts can help establish a solid relationship. Maintaining the relationship is less focused on the "big picture" but rather on day-to-day implementation of the cleanup.

The next two points presented in this paper deal with the day-to-day in the areas of routine communication and problem identification and resolution. In addition, at the FEMP, Fluor Daniel Fernald (FDF), has focused senior managerial attention on regulatory interface. A position was created, reporting directly to the President of FDF the primary role of which, in support of DOE, is to promote effective communication with the regulators and to facilitate issue resolution. A senior manager with responsibility for regulator interface helps ensure that focus on the working relationship is maintained in light of the pressures of completing a \$4 billion cleanup within an accelerated timeframe. This measure is highly recommended. It should also be emphasized that this managerial position goes well beyond simply ensuring compliance with regulations.

Several years ago an example of losing this focus on the relationship emerged. A technical issue associated with methodologies for demonstrating achievement of cleanup levels arose with significant disagreement between the regulators and DOE. The project leadership within FDF

was not experienced in working with the regulators. At the same time the senior FDF manager referenced above was assigned to other activities. Resolution of this issue stagnated for months with associated schedule delays for field cleanup. During this time other issues troubling to OEPA emerged without expeditious resolution. While initially slow to respond, DOE and FDF refocused senior managerial effort and the issues were systematically addressed. Since that time both DOE and FDF have maintained significant senior level attention on working with U.S. and Ohio EPA.

Active Routine Communication

The single most effective tool in a working relationship is active, routine, ongoing communication. While this does not appear to be a particularly glamorous item, the authors of this paper can not overemphasize the importance of frequent communication. Weekly conference calls are held with DOE, FDF, and the regulators during which the status of cleanup projects are reviewed. Daily communication goes beyond the status of projects and into detailed technical issues surrounding implementation of the projects. To facilitate effective technical communication, DOE leadership has allowed FDF to fully participate in this day-to-day communication. This has been invaluable because FDF, as the site's operating contractor, has the detailed working level knowledge of planning and implementation issues.

From the perspective of DOE, keeping the regulators well informed of technical issues and overall project status is worth the effort. When the inevitable problem arises, a complete and thorough understanding of the issues by the regulators greatly facilitates resolution of the problem. From the perspective of Ohio EPA, a complete up to date understanding of the issues facilitates their ability to not only independently oversee cleanup work but to help solve problems when they do arise.

Early Identification of Problems

Any working relationship can be seriously tested when problems arise. At Fernald, such problems have come in a variety of forms, most notably missing or having the potential to miss enforceable regulatory milestones. The way these problems at Fernald have been resolved range from expeditiously with little impact to invocation of Dispute Resolution clauses of the ACA followed by stipulated penalties.

A primary determining factor in how well the site has been able to work through major problems has been how early the problem was identified by DOE with the regulators. Obviously, the earlier concerns were identified, the more streamlined and expeditious the issue was resolved. In those instances where such identification was late, especially related to completion of enforceable milestones, the inevitable result was invocation of Dispute Resolution provisions of the ACA.

CONCLUSION

The conclusion of this paper is that progress in implementing cleanup at Fernald stagnated when a more traditional "us versus them" attitude prevailed in interactions between DOE and its regulators. Significant progress has been made since those parties have adopted a more

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proactive, partnering relationship. The concepts presented in this paper are strongly suggested for consideration at other large federal facilities undergoing remediation.