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ISSUANCE OF THE CERCLA ROD FOR AN OPERABLE UNIT REMEDIAL ACTION AT THE WELDON SPRING SITE - LESSONS LEARNED

S.H. McCracken,[1] J.M. Peterson, M.M. MacDonell, and R.D. Ferguson[2]

Environmental Assessment and Information Sciences Division
Argonne National Laboratory, Argonne, Illinois

[1] U.S. Department of Energy, St. Charles, Missouri

[2] Jacobs Engineering Group, St. Charles, Missouri

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S.H. McCracken, U.S. Department of Energy, St. Charles, Missouri
J.M. Peterson, Argonne National Laboratory, Argonne, Illinois
M.M. MacDonell, Argonne National Laboratory, Argonne, Illinois
R.D. Ferguson, Jacobs Engineering Group, St. Charles, Missouri

The U.S. Department of Energy (DOE) is responsible for conducting remedial actions at the Weldon Spring Site under its Environmental Restoration and Waste Management Program. The site is located in St. Charles County, Missouri, about 48 km (30 mi) west of St. Louis. The Weldon Spring site became contaminated as a result of processing and disposal activities that took place from the 1940s through 1960s, and it is listed on the National Priorities List of the U.S. Environmental Protection Agency (EPA). The site consists of two noncontiguous areas: a chemical plant area and a limestone quarry. The chemical plant area consists of about 40 buildings and miscellaneous structures as well as four raffinate pits and two small ponds.

The chemical plant area was previously used as an ordnance works facility to produce conventional explosives; later, a feed materials plant (generally referred to as the "chemical plant") was constructed at the site to process uranium and thorium ore concentrates. The quarry is located about 6.4 km (4 mi) southwest of the chemical plant area and within 1.6 km (1 mi) of an alluvial well field that constitutes a major source of potable water for St. Charles County; the nearest supply well is located about 0.8 km (0.5 mi) southwest of the quarry. Various wastes were disposed of in the quarry from 1942 to 1969; wastes therein include approximately 75,000 m^3 (100,000 yd^3) of contaminated soil and sediment, rubble, metal debris, and equipment.

The remediation strategy for the Weldon Spring Site consists of several components, one of which is management of the bulk (solid) wastes currently located in the quarry. These wastes constitute the source of contaminants migrating into the air and the underlying groundwater at the quarry. A remedial investigation/feasibility study (RI/FS) process was conducted to address the quarry bulk wastes in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP). Documents developed during this process included an RI report, a baseline risk evaluation, an FS report, and a proposed plan. Compliance with the National Environmental Policy Act (NEPA) was satisfied by integrating the requirements of an Environmental Assessment into the CERCLA documents. These documents were reviewed by EPA Region VII and the state of Missouri, and general concurrence was received prior to release for public review.

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The RI/FS documents and an informational bulletin were issued to the general public on March 5, 1990. A public meeting was held on March 29; representatives from DOE, EPA Region VII, and the state of Missouri participated in this meeting. The preferred alternative of managing the quarry bulk wastes presented at the public meeting was to remove the wastes from the quarry and transport them along a private haul road to a temporary storage facility constructed at the chemical plant area. The public was generally supportive of this action.

Following the public comment period, a CERCLA responsiveness summary (RS) report was prepared to address written and oral comments received on the RI/FS. The RS was issued in August 1990 following review and concurrence by EPA Region VII and the state of Missouri. The CERCLA Record of Decision (ROD) was prepared concurrently with the RS report and was transmitted for comment to EPA Region VII and the state of Missouri along with the RS report. In parallel, a Finding of No Significant Impact (FONSI) was prepared to document the NEPA decision for this action. DOE issued the FONSI on November 15, 1990.

EPA Region VII and the state of Missouri had only minor comments on the RS, but they provided significant comments on the ROD. Most of these comments concerned the evaluation of potentially applicable or relevant and appropriate requirements (ARARs).

The first draft of the ROD did not include a detailed discussion of ARARs but noted that additional discussion would take place between DOE, EPA Region VII, and Missouri state officials during the engineering design phase of the action. The EPA stated that a much more definitive evaluation was required. The draft ROD was revised in response to this comment.

A detailed evaluation of ARARs was incorporated into the revised draft ROD, including a determination that the quarry bulk waste was not a listed waste as defined by the Resource Conservation and Recovery Act (RCRA). The EPA signed the ROD on September 29, 1990, and sent a letter to the state of Missouri noting that it was their understanding that the state concurred with the action but disagreed with some of the ARAR determinations. The state subsequently sent a letter to EPA Region VII formally objecting to some of the ARAR determinations. Given that the state objected to portions of the ROD, the DOE deferred signing it.

During the next six months, several meetings were held between DOE, EPA Region VII, and the state of Missouri to resolve ROD issues. Concurrence was achieved on all topics except the RCRA determination. Because the selected alternative is an interim remedial action and does not involve waste disposal, all parties agreed that this RCRA issue should not delay the action. The DOE signed the ROD on March 7, 1991, after the state reaffirmed its desire to have the remedial action implemented.

A great deal of experience was obtained and significant lessons were learned by carrying out the environmental compliance process for this Operable Unit Remedial

Action. The ROD process took over the one year to complete following issuance of the RI/FS documents to the public for an action that had universal acceptance. This time frame needs to be shortened if DOE is to meet its commitments and develop a positive public image. Two important lessons learned that will help streamline this process include 1) finalizing the ARARs evaluation early in the ROD process and 2) assuring adequate agency input during ROD development.

Other lessons learned included 1) a greater appreciation of the difficulties in integrating NEPA and CERCLA and the amount of engineering required to support the environmental compliance process; 2) the recognition that the ARARs evaluation process provides an opportunity to make sense of conflicting (or impossible to meet) regulations (for example, land ban requirements) and time limits for storage under the Toxic Substance Control Act (which were waived); and 3) consistency, small group meetings, and compromise contribute much to public acceptance. The importance of obtaining early input from regulatory agencies such as the EPA and from directly impacted parties such as state, municipal, and county agencies, as well as the general public, cannot be overstated in the development of remedial action plans that are reasonable and that can be successfully implemented.

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