



## Recommendation No. 114

January 25, 2000

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### Proposed Interim Action Plan for A-Area Burning/Rubble Pit

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#### **Background**

An Interim Action Proposed Plan has been issued by DOE-SR, EPA-Region IV, and SCDHEC for the A-Area Burning/Rubble Pits and Rubble Pit (731-A, -1A, -2A) Operable Unit (ABRP-OU) (Reference. 1). Distinct geographic areas or media-specific units requiring cleanup are called Operable Units (OU). Operable Units are discrete actions taken as one part of an overall site cleanup. This Interim Action describes the preferred interim alternative for groundwater and final alternative for soil at the ABRP OU. Under both Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA; see Section 117-a), the public has the right to participate in remedial action decisions. The public comment period for this Interim Action ended January 19, 2000.

ABRP-OU is located about 1.5 miles south of M Area, upgradient from Miscellaneous Chemical Basin (MCB) and downgradient from A/M Area RCRA Units. From 1951 to 1973, the two Burning/Rubble Pits were open excavations (approximately 22 feet wide, 9 to 10 feet deep, and 250 feet long) used to burn paper, plastics, wood, rubber, rags, cardboard, oil, degreasers, and drummed solvents. Wastes were usually burned on a monthly basis until 1973, when burning stopped. Afterwards, the pits were used as rubble pits to contain concrete rubble, bricks, tile, asphalt, plastic, metal, wood products, and rubber. Around 1978 the pits were taken out of service and covered with soil. Pit 731-2A was only used as a rubble pit and collected similar wastes until 1983 when it was backfilled with native soil and seeded.

Investigations performed for ABRP-OU indicate that soil and groundwater have been contaminated at the unit. The only constituent of concern (COC) identified for the soils as a risk to the industrial worker is Benzo(a)pyrene (BAP) in the surface soils (0-2 feet) of Pit 731-2A. BAP is a polycyclic aromatic hydrocarbon (PAH) that is formed when gasoline, garbage, or animal or plant wastes are burned. Results from leachability analysis indicate that none of the present contaminants in the soil at ABRP-OU will reach groundwater at concentrations that pose a risk to human health or the environment within a 1,000 year period.

The preferred final remedy for the soil contamination is a soil cover over 731-2A with institutional controls. This alternative would include the placement of one foot of native soils, compacted and reseeded. The estimated cost for this alternative is \$213,208.

However, three volatile organic compounds (VOCs) which currently exceed their respective Maximum Contamination Levels (MCL) have previously contaminated the groundwater in the water table aquifer (M-Area Aquifer). These VOCs are methylene chloride, tetrachlorethylene (PCE) and trichlorethylene (TCE). The same contaminants have been found upgradient and downgradient of the ABRP-OU in the deeper Lost Lake Aquifer; it is not currently known if the ABRP-OU has contributed to this deeper contamination.

This Interim Action indicates that there is no principal threat source material (PSTM) at ABRP-OU. Such material contains hazardous substances, pollutants, or contaminants that serve as a source to contaminate groundwater, surface water, air, or direct human exposure. PSTM is highly toxic at levels that pose a potential risk to human health of  $1 \times 10^{-3}$  (one-thousandth) or greater if exposure occurs. Contaminated groundwater generally is not considered to be source material; however, Non-Aqueous Phase Liquids (NAPLs) in groundwater may be viewed as source material. But at ABRP-OU, the source material is considered to pose only a low-level threat.

The preferred interim action proposed for the contamination in the groundwater is an active air sparging system to strip the VOCs from the groundwater and a passive soil vapor exaction system to remove VOC vapors from the unsaturated soils. This combination system is designed to effectively treat the most contaminated portion of the VOC groundwater plume. Part of the interim action includes an assessment of the potential for contaminants to have migrated into the deeper aquifer. The data gained from this investigation will be used to assess the impact of ABRP-OU on the Lost lake Aquifer, and the potential for commingling of the ABRP-OU plume with the A/M Area plume and MCB plume. The

estimated cost for this preferred interim action is between \$3,010,638 and \$4,221,228.

### **Comments**

The SRS CAB supports the proposed actions as a reasonable choice among the alternatives. However, it is the CAB's preference to spend remediation dollars toward actual cleanup and not additional study and research. In this case, the CAB recognizes the need to determine if commingling of the contaminants in the deeper aquifer has occurred.

However, the CAB believes it may be more cost effective to remediate commingled contamination from several OU(s) instead of individual separate discrete actions. In addition, the CAB has a concern that the existing regulatory framework will not allow a holistic approach even when it is more protective of human health and the environment.

### **Recommendation**

The SRS CAB recommends that:

1. The preferred alternative for final soil remedial action and interim groundwater remedial action for ABRP be implemented.
2. The three agencies provide the Board with an opportunity to review the performance evaluations for ABRP-OU groundwater interim remedial action during the same review period as the Regulators.

### **References**

Interim Action Proposed Plan for the A-Area Burning/Rubble Pits (731-A/1A) and Rubble Pit (731-2A) Operable Unit (U), Westinghouse Savannah River Company, Report WSRC-RP-99-4014, Revision 1.1, November 1999

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### **Agency Responses**

[\*Department of Energy-SR\*](#)  
[\*Department of Health and Environmental Control\*](#)  
[\*U.S. Environmental Protection Agency\*](#)