

Two parallel disposal trenches were discovered. A total of 857 tons of impregnation kit materials and associated soils were removed and placed in a landfill in Hampton, Virginia. Earlier analytical testing indicated that the soils and materials removed from the Impregnation Kit Area were not a RCRA hazardous waste according to 40 CFR part 261.3 and the Material Safety Data Sheet for XXCC3. All waste was disposed of in a non-hazardous waste landfill in Hampton, Virginia.

Following the removal, in January 1999, EPA proposed to add releases of hazardous substances, pollutants and contaminants at Nansemond to the National Priorities List (NPL). 64 FR 2950 (January 19, 1999). EPA added the releases to the NPL in July 1999. 64 FR 39878 (July 22, 1999). One of the supporting documents, the Hazard Ranking System (HRS) Documentation Record, described the Impregnation Kit Area as one of seven sources of contamination at Nansemond, based on the soil sample taken in 1997. EPA also noted, however, that "The rectangular parcel, identified as Source Area 3 [the Impregnation Kit Area] in the HRS Documentation Record, has undergone extensive removal activities and EPA anticipates that confirmation sampling will indicate that this area also is not of concern to EPA." At the time it drafted the HRS Documentation Record, EPA estimated the Impregnation Kit Area covered approximately 300,000 square feet.

In the summer of 1999, a contractor for the Corps took samples of the soil in the Impregnation Kit Area to confirm that the excavation had successfully removed contaminated soil and to check for hazardous substances, pollutants and contaminants in 20 acres surrounding the excavation. The contractor also performed a geophysical investigation to identify geophysical anomalies that might indicate ordnance buried in the Impregnation Kit Area.

The Confirmation Sampling Report shows that the excavation successfully removed the impregnation kits and associated contaminated soil. Residual concentrations of hazardous substances, pollutants and contaminants in soil samples were less than EPA Region III's Risk-Based Concentrations for residential use, and less than concentrations that might contaminate ground water, except that all the soil samples contained arsenic, at levels up to 4.6 mg/kg. These arsenic concentrations, however, are within the range of naturally occurring background concentrations for soils in this region of Virginia. Under CERCLA, the Corps and

EPA generally do not clean up naturally occurring substances in their unaltered form (or altered solely through naturally occurring processes) from locations where they are naturally found.

The geophysical investigation found 16 geophysical anomalies. However, after excavating each location, the anomalies were shown to be caused by innocuous metal items, such as wire and pipes. A single piece of ordnance-related scrap was found at Anomaly 1, shown as square 1 on Figure 2 of the Corps' Post Removal Action Confirmation Sampling Report (2002) (the "Confirmation Sampling Report"). The scrap did not contain explosives, nor were any other ordnance or explosives found.

The Confirmation Sampling Report concludes that "based on the results of the confirmation sampling investigation, no further action is recommended for the site [the Impregnation Kit Area]." Furthermore, the report states that the Corps, EPA and VDEQ have agreed to redefine the boundaries of the Impregnation Kit Area to reflect the actual size of the removal area. The removal occurred within a 270 foot diameter circle, with an area of about 57,255 square feet. EPA has no data at this time that show releases of hazardous substances, pollutants or contaminants in the rest of the approximately 300,000 square foot rectangle described in EPA's 1999 HRS Documentation Record. EPA bases its proposal to delete the soil in the Impregnation Kit Area (all 300,000 square feet) on the results of the Corps' Post Removal Action Confirmation Sampling Report and the other documents in the Deletion Docket. Based on these documents, EPA, with the concurrence of the Commonwealth of Virginia, has determined that the Corps has implemented all appropriate response actions for the soil in the Impregnation Kit Area and no further response action is appropriate for the soil in this area.

Ground water beneath the Impregnation Kit Area has not been fully characterized and is not proposed for deletion from the NPL. Although some sampling and evaluation has been completed, more study is needed to better understand whether the ground water is contaminated and, if so, to what extent. Hazardous substances, including explosives, have been detected in ground water at other locations within Nansemond. It has not been clearly demonstrated that hazardous substances, pollutants or contaminants have been, or continue to be, released into the ground water beneath the Impregnation Kit Area at levels of

concern to human health or the environment. Data gathered so far do not appear to indicate unacceptable human health threats from ground water beneath the Impregnation Kit Area, except perhaps if used for drinking water. Accordingly, the present owner of the property has agreed to prohibit drinking of ground water beneath the Impregnation Kit Area through a restrictive covenant, or similar legal device, in a deed. In addition, a City of Suffolk ordinance, section 90-126, requires all new premises, buildings or dwellings abutting a city water main to connect to the water main. This means that, under current law, any new buildings on the Impregnation Kit Area would connect to the city water main, reducing the likelihood that people would choose to drill wells and use ground water beneath the Impregnation Kit Area. The EPA and Corps plan future investigations to determine whether the ground water beneath the Impregnation Kit Area, and other areas within Nansemond, poses a risk to human health or the environment.

Community Involvement

The Corps and EPA have had a comprehensive public involvement program for several years at Nansemond. The Corps prepared its first community relations plan for Nansemond in 1996 and in 1997 organized a Restoration Advisory Board (RAB) to solicit the views of local citizens and other interested parties on the environmental restoration at Nansemond. RAB members include representatives of the Corps, EPA, VDEQ and community members. RAB members meet every second month to review and comment on technical documents and plans relating to the ongoing environmental restoration activities at Nansemond. Meetings are open to all members of the public. The 1998 removal, the post confirmation sampling and plans to partially delete the Impregnation Kit Area have been discussed at RAB meetings.

The Corps and EPA have also established document repositories, described above, to make available to the public information about the investigation and cleanup at Nansemond.

Current Status

Removal of impregnation kits and associated contaminated soil in the Impregnation Kit Area has been successfully completed. No further response action is planned or scheduled for the soil in this area. Ground water, however, may be the subject of future response actions under CERCLA. In the