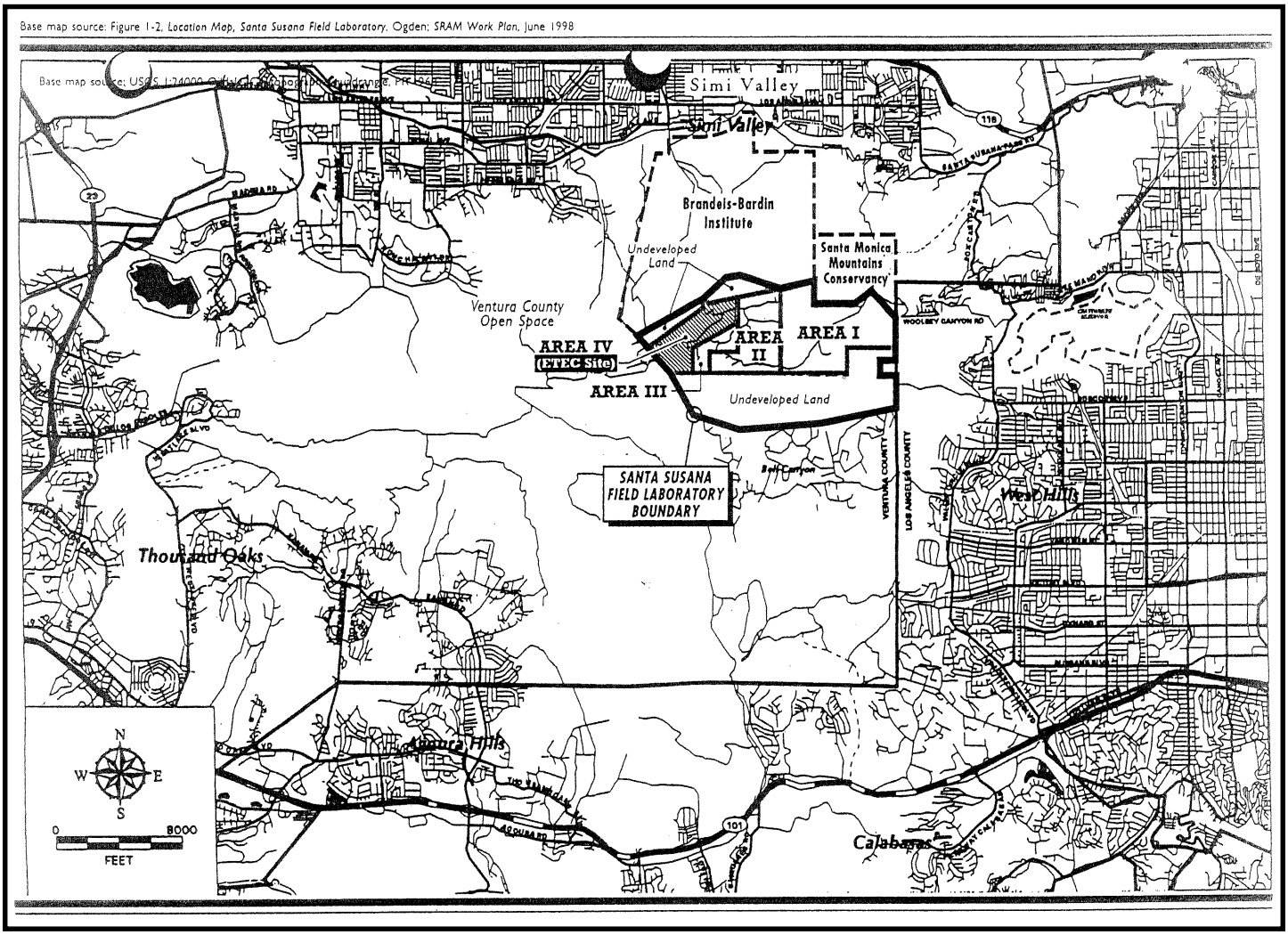
EPA Concludes Superfund Evaluation of ETEC Area IV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY • REGION IX • DECEMBER 2003

The U.S. Environmental Protection Agency (EPA) Region 9 Superfund Program has determined that the Energy Technology Engineering Center/Area IV (ETEC) site is not eligible for inclusion on Superfund's National Priorities List (NPL), and no further response action by the Federal Superfund program is warranted at this time. The decision is based on EPA's evaluation of radionuclide data for ETEC Area IV. EPA's decision does not impact ongoing remediation efforts being conducted by the U.S. Department of Energy (DOE).

The findings and rationale for EPA's decision are discussed in the Site Inspection (SI) Report, dated September 2003. A copy of the SI Report was sent to interested parties and the community information repository on November 4, 2003, and again on November 14, 2003 due to copying errors. The repository is located at:

Simi Valley Library
2969 Tapo Canyon Road
Simi Valley, California 93063
(805) 526-1735
Contact: Mr. Joel Tivin



Site Location Map: Energy Technology Engineering Center/Area IV (ETEC) Site, Simi Hills, California

Background

The Energy Technology Engineering Center/Area IV (ETEC) site is in Simi Hills, Ventura County, California. Area IV is one of four areas (Areas I - IV) of the Rockwell International, Rocketdyne Division, Santa Susana Field Laboratory (SSFL). It is located on 290 acres of the 3000 arces of the SSFL.

From 1956 to 1988, Area IV was used by Rocketdyne and the U.S. Department of Energy for nuclear energy research and development. Nuclear operations began to be phased out in the mid- 1960s, with all nuclear research terminated in 1988. Subsequent work has been directed toward investigation and cleanup of buildings, soil, and groundwater contaminated by radioactivity.

The nearest residences are located in Bell Canyon, approximately 0.5 mile southeast of the ETEC Site, at the Santa Monica Mountains Conservancy's Sage Ranch Park, approximately 1.5 miles northeast of the Site, in Simi Valley, approximately 1.7 miles northwest of the Site, and in the northernmost portion of the Brandeis-Bardin Institute property, approximately 2 miles north of the Site.

Summary of HRS Results at ETEC Area IV

In 1996, the SSFL Workgroup, requested that the EPA Superfund program evaluate radionuclide data for Area IV to determine whether Area IV qualified for inclusion on the NPL. In response, the EPA Region 9 Superfund program initiated a Site Investigation for Area IV using Hazard Ranking System (HRS) criteria.

The HRS assesses the relative potential threat to human health or the environment posed by a site, and is the principal mechanism EPA uses to place uncontrolled waste sites on its National Priorities List (NPL). ETEC Area IV was determined not to be eligible for the NPL for the following reasons:

1. The groundwater beneath Area IV is not currently used for drinking water. The nearest active drinking water well is located beyond the 4-mile radius required for inclusion in the HRS. Although tritium is found in the groundwater beneath Area IV, none of the concentrations of tritium exceed the U.S. EPA Maximum Contaminant Level (MCL) of 20,000 picoCuries per liter (pCi/L).

2. There are no drinking water intakes, fisheries, or aquatic sensitive environment habitats as defined by the HRS associated with the surface water pathway (i.e., the intermittent creeks that drain Area IV).

3. There are no residences, schools, daycare centers, or terrestrial sensitive environment habitats as defined by the HRS, on or in proximity of ETEC Area IV. Radionuclides associated with historic Area IV research are not present at concentrations significantly above background in the soils surrounding residential communities.

4. No annual exposures measured are above the Nuclear Regulatory Commission annual dose limit to the general public of 100 millirem above natural background. Measurements are based on continuous ongoing outdoor ambient air sampling of radioactivity conducted within and along the perimeter of Area IV. There is no known outdoor ambient air sampling that was conducted on-site or off-site during the years that Area IV was fully operational.

EPA's Data Analysis

EPA reviewed analytical data for samples collected by Rocketdyne contractors in 1992, 1994, and 1998 to determine the extent of radionuclide contaminant migration from Area IV to the surrounding areas.

Samples were collected at the Brandeis-Bardin Institute, the Santa Monica Mountains Conservancy's Sage Ranch Park property, and Bell Canyon. The samples were taken from soils and sediments. EPA also reviewed groundwater data collected from 45 monitoring wells located in and around Area IV. Additionally, EPA reviewed results from surfacewater discharge outfalls that are regulated by the California Regional Water Quality Control Board (CRWQCB). The outfalls draining Area IV were in full compliance with the regulations established by the National Pollution Discharge Elimination System (NPDES).

The greatest number of samples were collected at the Brandeis-Bardin Institute. Consequently, EPA and the state Department of Health Services (DHS) each conducted laboratory analysis independent from Rocketdyne for the 1992 and 1994 samples collected at this location. Validation tests showed that the data by EPA, DHS, and Rocketdyne correlated 97% for the 1992 data and 96% for the 1994 data, demonstrating consistency in the analytical results obtained among the three entities.

What Is the HRS?

The Hazard Ranking System is the principal mechanism EPA uses to place uncontrolled waste sites on the National Priorities List. It is a numerically-based screening system that uses information from investigations, such as a Site Investigation, to assess the relative potential threat to human health or the environment posed by a site. The HRS assigns numerical values to factors that relate to risk, based on conditions at a site. There are three categories of factors and four pathways that can be scored under the HRS

The three categories of factors:

1. The likelihood that a site has released or has the potential to release hazardous substances into the environment.
2. The characteristics of the waste, such as toxicity.
3. People or sensitive environments affected by the release.

The four pathways:

1. Goundwater migration (drinking water).
2. Surface water migration (drinking water, human food chain, sensitive environments).
3. Soil exposure (resident and nearby population, sensitive environments).
4. Air migration (population, sensitive environments).

After scores are calculated for one or more pathways, they are combined using a root-mean-square equation to determine the overall site score. For additional information on EPA's HRS, please visit http://www.epa.gov/superfund/programs/nplhrs.

Ongoing Regulatory Activity

DOE, not EPA, has the principal legal authority for making decisions and performing cleanup at ETEC. The legal explanations for this are very complex. Different laws, regulations and policies dictate when and how EPA will be involved in environmental cleanups. For the SSFL site, DOE has responsibility for the cleanup of ETEC, and final decisions about the cleanup will be made by DOE.

In past years, EPA has recommended changes in DOE's cleanup approach and actions at ETEC. Most recently, we offered, contingent on DOE providing resources, to conduct a field survey at ETEC that would adhere to how EPA would investigate a site like this. DOE decided to do the survey themselves and to move forward with their final cleanup decisions and site close-out activities. EPA will not complete a separate site survey.

EPA's involvement at ETEC will no longer be of the nature and level it has been in the past. By completing the HRS evaluation and providing comments on DOE's Environmental Assessment, EPA has completed its independent oversight of DOE. EPA may be available to provide technical input when requested. However, we will only be providing input after analyzing our ability to impact the final decisions and assessing our available resources.

For More Information

Matt Mitguard
Superfund Division
States, Tribes, and Assessment Section SFD 9-1
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3096

John Beach
Waste Programs Division
RCRA Corrective Action Office WST-5
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3347