NEW HAMPSHIRE DEPARTMENT OF Environmental Services

EPA Region 1, New England

Beede Waste Oil / Cash Energy Site Newsletter

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The US Environmental Protection Agency (EPA) and the New Hampshire Department of Environmental Services (NH DES) are working together to clean up the Beede Waste Oil / Cash Energy Superfund Site located at 7 Kelley Road in Plaistow, New Hampshire.

There are three phases to the cleanup: Time Critical Removal Activities, Non-Time Critical Removal Activities, and the Remedial Investigation. An update on the progress in each area follows.

TIME CRITICAL REMOVAL ACTIVITIES

Contact Ted Bazenas, EPA On-Scene Coordinator 617-573-5723 or Paul Currier, NH DES Project Manager 603-271-4069

Time critical removal actions stop or substantially reduce a release or threatened release of hazardous substances.

EPA initiated time critical removal activities at Beede in July, 1996 and completed the removal on August 12, 1997.

EPA removed the contents of drums and above ground storage tanks which contained the highest levels of PCB (polychlorinated byphenyls), contaminated oil or exhibited other hazardous characteristics such as ignitability or corrosiveness.

NH DES began removal activities in June, 1997.

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REMEDIAL INVESTIGATION

Contact Paul Currier, NH DES Project Manager 603-271-4069 or Jim DiLorenzo, EPA Project Manager 617-223-5510

The purpose of the Remedial Investigation is to: gather the data necessary to determine the sources, nature and extent of all contamination at the Site; identify how the contamination is migrating; and evaluate potential public health and environmental risks. At Beede, this means installing monitoring wells, taking extensive soil, surface water and sediment samples and quantifying potential risks.

Sixty on site wells and 10 off-site monitoring wells have been installed. The monitoring wells will be used to sample and determine Site hydrogeology and to locate potential unknown sources of contamination. NH DES and their contractor, Sanborn Head & Associates will begin periodic sampling of the various monitoring wells in mid-September. Expect to see crews working at the off-site wells in the future.

The State's contractor, Sanborn, Head & Associates (SHA) submitted the Draft Remedial Investigation Workplan and associated documents on August 15, 1997. Approval of the Workplans by EPA is needed prior to beginning the extensive soil characterization program. However, surface water and sediment sampling have been approved and will be performed on September 11 and 12 by SHA. ♦

WHAT'S INSIDE

FOR MORE INFORMATION

Cleanup of the Beede Waste Oil / Cash Energy Site is a team effort with environmental and health representatives from state and federal agencies. The following people are available to answer any questions:

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On-Scene Coordinator - Removal Activities
US Environmental Protection Agency

Paul Currier 603-271-4069
Project Manager - Remedial Investigation
NH Department of Environmental Services

Bob Minicucci 603-271-2941
Community Relations
NH Department of Environmental Services

Jim DiLorenzo 617-223-5510
Project Manager - Remedial Investigation & Non-Time Critical Removal Actions
US Environmental Protection Agency

Angela Bonarrigo 617-565-2501
Community Involvement Coordinator
US Environmental Protection Agency

Scott Sudweeks 603-271-4664
Health Risk Analyst
NH Department of Health & Human Services

A worker wearing protective equipment prepares to enter an opened storage tank. For more information on health and safety, see p. 4.

NON - TIME CRITICAL REMOVAL ACTIVITIES

Contact Jim DiLorenzo, EPA Project Manager 617-223-5510

Non-time critical removal actions (NTCRA) stop or substantially reduce a release or threatened release of hazardous substances. Although serious, these releases do not pose an immediate threat to public health or the environment. EPA and NH DES have determined that a non-time critical removal action at the Beede Site is necessary for the extraction of contaminated floating oil product from the groundwater.

EPA's NTCRA design contractor, Brown and Root Environmental has determined that a pilot study is needed prior to implementing a full scale oil product recovery system. The data gathered will be used primarily to measure the depth and breadth of the floating oil product and the degree of groundwater treatment needed.

The design for the pilot system has been completed. It includes installation of a recovery trench at the leading edge of the floating oil plumes (along Kelley Brook) and recovery wells which will skim the floating oil product off the water table in the known source areas. The trench will extend over approximately 100 feet.

EPA expects to select a contractor to build and operate the pilot scale recovery system by mid - September and construction will begin in October. Construction will require about two weeks and the pilot will operate until spring, 1998. Full scale construction and operation of the oil product recovery system will begin in the spring of 1998 and likely operate for several years. ♦

COMMUNITY INVOLVEMENT CORNER

September 22 Board of Selectmen Meeting: NH DES and EPA staff will update the Plaistow Board of Selectmen on site activities on Tuesday, September 22 at 6:30 pm.

SITE HISTORY

The Beede Waste Oil / Cash Energy site is comprised of two parcels of land totaling 39 acres. Parcel 1 totals 22 acres and is the site of former commercial waste oil recycling and fuel oil storage and distribution operations. Parcel 2, a former gravel pit, is 17 acres of primarily undeveloped land.

1926 - 94 Commercial operations, including recycling of used oil, storage and distribution of virgin fuel oil and cold patch manufacturing.

1991 NH DES verifies that on site soil and floating oil (LNAPL) is a source of contamination to abutting residential wells.

1991 Site Owner conducts some investigations and removes a leaking underground storage tank believed to have been the primary source of LNAPL from the site to Kelley Brook.

1992 State files suit and obtains preliminary injunction order for site owner to control the LNAPL, investigate site and control hazardous waste.

1992 NH DES places sorbent pads in Kelley Brook to contain the floating oil.

1995 NH DES conducts investigation of site conditions and nature of waste.

1996 Current owner is sentenced in Federal Court to serve 37 months for illegal and improper handling of hazardous waste.

1996 NH Fish and Game, NH DES and EPA conduct fish tissue survey to measure potential impacts of contaminants in Kelley Brook.

1996 EPA initiates time critical removal actions to address contaminated material left in the tanks and drums. Remedial Actions will begin in late summer and continue through the next few years.

1996 EPA adds Site is added to the Superfund NPL list, making additional federal funds available for cleanup and remediation.

1997 EPA completes time critical removal actions.

1997 NH DES initiates removal action to address less contaminated material and remove tanks and drums.

Time Critical Removal Activities, ontinued from p.1

to remove all other contents from the tanks as well as removing the drums and dismantling and removing the tanks. NH DES expects to complete these activities this fall.

When finished, all contaminated hazardous materials will be off the site and cleanup efforts will focus on the Remedial Investigation to address soil and groundwater contamination. The table below details what has been removed from the site as of August 31, 1997. In general, each above ground storage tank contained water, sludge and oil:

TOTAL MATERIALS REMOVED AUGUST 31, 1997

	OIL	SLUDGE	WATER	TANKS	DRUMS
EPA	180,000 gallons	35,000 gallons	235,000 gallons	0 tanks	170 drums
DES	169,000 gallons	30,000 gallons	230,000 gallons	90 tanks	415 drums
TOTAL	349,000 gallons	65,000 gallons	435,000 gallons	90 tanks	585 drums

Contractors have removed the oil, sludge and water from 90 tanks and cut up and removed the tanks from the Beede site.

HEALTH AND SAFETY

Contact: Bob Minicucci, NH DES 603-271-2941 or Scott Sudweeks, NH Department of Health & Human Services 603-271-4664

When you see DES or EPA contractors doing investigation or waste removal at the Beede site, they are often wearing unusual clothing - hard hats, white coverall suits, gloves, boot covers, even breathing masks like a deep sea diver. Why is this?

The Beede site, like any contaminated site, has hazards. First, there are the physical hazards. If you're going to step into a steel tank through a hatch, you'd better wear a hard hat. Good boots are a necessity - over boots are needed if you're going to be stepping in "stuff." The correct gloves must be used, depending on what you're going to be handling. Safety glasses are almost always needed. Hearing protection is needed for loud jobs such as cutting a hole in a steel tank.

These particular precautions are similar to those taken for many jobs. However, the first issue complicating the matter at a waste site is the personal protective equipment (PPE) required. If you're wearing a full face respirator, your vision is partially blocked, especially down by your feet. Therefore, you have to walk more cautiously - after all even in a protective suit, you don't want to fall face first into a pool of oil or sludge. The coveralls and gloves (usually two pairs of gloves) tend to make you a little more clumsy, so you work more slowly.

The PPE is needed because in addition to physical hazards, at a waste site there are chemical hazards. The materials stored at the Beede site, are dangerous to at least some extent and have to be handled with care. The type of care that must be taken depends on the exact material or chemical being handled, and the situation in which the work must happen. At Beede, we sometimes have not known the exact contents of a container we are opening; this uncertainty means we have to be more cautious. The large quantities of material at the site require us to be more cautious - you just don't deal with a 20,000 gallon container that's been out in the open for years the same way you deal with a one gallon can in a building.

Another source of risk to workers is the "confined space." Often over the last year, workers have had to enter tanks at the site to empty or clean them. The atmosphere inside an oil tank, or other confined space, is uncertain - there may or may not be oxygen to breathe, there may or may not be toxic chemicals in the air in the tank. By federal regulation, workers enter these "confined spaces" only after advance planning, and with resources ready to immediately retrieve the worker should he or she lose consciousness.

To work at a contaminated site a person must have, as a minimum, a 40 hour course of training called "Hazwoper." The federal Occupational Health and Safety Administration (OSHA) mandates what this course must cover. Then, you must get an eight-hour update course every year. In these courses, we learn about how to choose proper PPE, how to recognize and deal with various hazards, and what rules and regulations have changed since the last update.

There are many rules and regulations governing work at contaminated sites. OSHA is the main governing agency, although the environmental agencies also have rules to follow. The Department of Transportation has rules that govern what sort of material can be shipped, and what labeling and manifesting must be used. The environmental agencies have manifesting rules, too. Other agencies, such as the National Institute for Occupational Safety & Health (NIOSH), determine what a worker can be safely exposed to, either for the whole work shift or instantaneously. All these standards are updated every few years, as we learn more about the business.

To work at a contaminated site, each contractor develops a specific "Health and Safety Plan" (HASP) to describe how they intend to do the specific work. The HASP describes procedures for the various equipment being used on the job, such as vacuum trucks, man lifts, torches, etc., describes how the contractor intends to address the specific physical and chemical hazards, and describes emergency procedures. The HASP is then approved by their employer - at Beede either EPA or DES. All people entering the site are required to review and sign the HASP. In addition, daily meetings are held to discuss health and safety issues relating specifically to the site.

One person, usually an employee of the contractor, is designated "health and safety officer." The health and safety officer has responsibility for the work proceeding safely, and the power to stop any aspect of the job that she or he feels is not being done correctly. The health and safety officer modifies the HASP if new problems are encountered, or if new equipment is brought in.

One last aspect of health and safety we'll mention - medical monitoring. People who work on contaminated sites have periodic physical examinations which include extensive blood and urine testing. You get an examination when you start a job (to establish a baseline), an examination every year, and another one when you leave the job. You may also be examined after an accident. These examinations are intended to monitor your health and to be certain that you are physically capable of doing the work.

To summarize, to work on contaminated sites both regularly and safely, precautions are necessary. Workers are trained, and they plan their work before they begin. Protective equipment is chosen to match the hazards, and work proceeds cautiously. The workers' health is closely monitored. There are quite a few regulations to follow, which hopefully leads to completing the work safely. ♦