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Keefe
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FIVE YEAR REVIEW

KEEFE ENVIRONMENTAL SERVICES

SUPERFUND SITE

EPPING, NEW HAMPSHIRE

PREPARED BY:

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION I

BOSTON, MASSACHUSETTS



Dennis Huebner, Chief
NH&RI Waste Management Branch

2/22/93

Date

I BACKGROUND

Pursuant to section 120(c) of the Comprehensive Environmental Response, Compensation and Liability Act, as amended, (CERCLA and 300.43 (s)(4)(ii) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), a periodic review (no less than every five years) of remedial action(s) is required for sites where hazardous substances, pollutants or contaminants remain above levels that allow for unlimited use or unrestricted exposure following the completion of all remedial actions at the site. The purpose of such a review is to determine the continued adequacy of the remedial action(s) implemented to provide protection of human health and the environment.

On May 23, 1991 EPA issued OSWER Directive 9355.7-02, which established a policy whereby remedies, selected prior to the 1986 amendments to CERCLA and which resulted in exposure restrictions as above, would also be required to undergo a 5-year review. This 5-year review for the Keefe Environmental Services Site is being conducted a result of that Policy.

II SITE HISTORY AND RESPONSE ACTIONS

The Keefe Environmental Services Site is located in a semi-rural area of the Town of Epping, New Hampshire, approximately two miles southeast of the municipal center. Keefe Environmental Services, Inc. (KES) operated the site as a chemical waste storage facility from 1978 to 1981, when KES filed for bankruptcy and the site was abandoned. The Site was listed on the National Priorities List in October 1981.

During its operation, the facility consisted of drum storage areas, large storage tanks, equipment shelters and a bulking area. A 700,000 gallon capacity, synthetically-lined waste lagoon was also installed on the Site. After the Site was abandoned, EPA and the NHDES (then known as the NHWSPCC) performed several emergency removal actions which included providing site security, pumping down the lagoon, drum stabilization, drum removal, and lagoon berm stabilization. Between Feb., 1981 and April, 1983 the lagoon was pumped down on five occasions to avoid overtopping and the release of contaminants to the surrounding environment. In November, 1983, EPA issued a Record of Decision for the Site (OU#1) which provided for the removal of the contents of the lagoon, the removal of the liner underlying the lagoon and the excavation of "highly contaminated" soils from within and around the lagoon, with disposal at a RCRA treatment/disposal facility. The work was completed that year and is the action which triggered this 5-year review.

On March 21, 1988 EPA completed a Remedial Investigation/ Feasibility Study (RI/FS) for the Site and issued a second Record of Decision in which a remedy for the cleanup of the entire site was selected. The remedy consisted of the extraction and treatment of contaminated groundwater and in-situ treatment of contaminated soils using the vacuum extraction technology. Extensive soil sampling was undertaken during pre-design studies to confirm the concentrations of soil contaminants reported in the RI/FS and to delineate the areas of the Site for remediation. EPA discovered, as a result of this sampling, that the contamination levels in the soil had been overestimated in the RI and further that the levels remaining on the site were all below cleanup levels established in the ROD. On June 8, 1990 EPA issued an Explanation of Significant Differences (ESD) which documented this finding and eliminated the soil remediation from the remedy.

The construction of the groundwater extraction and treatment system is currently underway with an anticipated construction complete in the spring of 1993. The ROD estimated that the system will have to be operated for up to 10 years to meet groundwater cleanup levels.

III SCOPE OF THE FIVE YEAR REVIEW

In OSWER Directive 9355.7-02 EPA established that 5-year reviews for "interim remedy's " would be limited to a determination that the "specific action(s) implemented is serving the protective purpose for which the interim remedy was intended". The action provided for in the 1983 ROD was essentially an action only to eliminate the continuing threat of release of hazardous wastes resulting from the overtopping of the waste lagoon and as such is consistent with actions which, under current guidance, would be considered "interim remedies". The scope of this 5-year review will therefore be limited as noted above. Further, as a result of the findings of the aforementioned 1991 ESD which found that soil levels remaining at the site are protective of human health and the environment and which would therefore allow for "unlimited use and unlimited exposure", EPA has determined that no further 5-year reviews for this remedy will be necessary.

IV RESULTS AND RECOMMENDATIONS OF THE FIVE-YEAR REVIEW

As previously noted, the "protective purpose " for the action set forth in the Nov.1983 ROD was to eliminate any threats of releases of hazardous wastes to the environment as a result of overtopping of the waste lagoon. The remedy, which called for the removal of the lagoon contents, the liner and highly contaminated soils in and around the

lagoon, was fully implemented in 1984. Subsequent inspections of the Site have shown that these actions have been successful and that there no longer exists any threat of release from lagoon overtopping. Additionally, subsequent studies have shown that the lagoon area no longer presents a threat to human health or the environment. EPA has therefore determined that the remedy has "served the protective purpose for which it was intended". Further, as a result of the findings of the 1990 ESD, which found that the soil levels remaining at the Site are protective of human health and the environment and which would, therefore, allow for "unlimited use and unrestricted exposure", EPA has determined that no additional 5-year reviews for this remedy will be required. Five-year Reviews will be conducted ,as required, for the Groundwater portion of the site remediation. The first such review is due in 1995.