

**Technical Review Panel (TRP)
Decision Document
Site Remediation and Waste Management Program**

Technical Review Request #

Panelists: Barry Frasco, Assistant Director, Hazardous Site Science Element
Ed Putnam, Assistant Director, Remedial Response Element
Wayne Howitz, Assistant Director, Responsible Party Remediation Element

Remediating Party: Fluid Packaging
Consultants: Environ
214 Carnegie Center
Princeton, NJ 08540-6284

Date of Request: 2/5/03
Date of Meeting: 3/9/04

Site Address: Fluid Packaging Company, Inc.
800 Airport Road
Lakewood, Ocean County
Case # 92-07-31-1027
PI#:022690

Background:

Fluid Packaging Company, Inc. has operated a contract packaging facility of personal care products such as anti-perspirants, deodorants, shampoos and similar products at this location since the 1970's.

Disputed Technical Issues per the Technical Review Request

Fluid Packaging is disputing the Department's requirement to conduct additional delineation of sediments in the drainage channel for heavy metals and Polynuclear Aromatic Hydrocarbons (PAH). Fluid Packaging has contended that the source for the PAH and heavy metal contamination is from off-site sources not attributed to their operations. Fluid has taken responsibility for the petroleum hydrocarbon contamination, which can be attributed to the mineral oil release in December 1996. However, Fluid also contends that there are also contributions from off-site sources.

A storm water outfall associated with the site currently represents the headwater of the off-site storm water drainage channel that is located on Fluid Packaging's property. The storm water conveyance system at the site collects storm water at the site and from areas upgradient of the site along Airport road. The drainage channel also receives runoff from off-site areas to the southwest and west of the storm water out fall.

The Technical Review Panel has reviewed the information submitted by Fluid Packaging's consultant Environ. The Panel met with representatives from Environ as well as Fluid Packaging.

Based on the investigation results, Fluid Packaging has: 1) proposed to complete additional actions with respect to the Total Petroleum Hydrocarbon Contamination (TPHC) concentrations in the drainage channel sediments which are above the identified upgradient concentrations; and 2) recommended that no further actions are necessary to be completed by Fluid with respect to the reported PAH and metals concentrations in the drainage channel sediments.

Total Petroleum Hydrocarbons

Fluid Packaging's investigation of the drainage system has identified elevated levels of TPHC concentrations in the sediments. These concentrations according to Environ are consistent with those identified in the remediation of mineral oil that was accidentally released at the site in 1996. Results within the off-site storm water drainage channel have identified elevated TPHC concentrations in sediments, which according to Environ are associated with the December 1996 accidental mineral oil release at the Site. Environ claims that elevated TPHC concentrations have also been detected in sediment samples collected from catch basins at the upgradient portion of the storm sewer collection system on Airport Road.

Polynuclear Aromatic Hydrocarbons and Metals

Fluid Packaging's investigation of the storm water drainage channel identified elevated concentrations of PAHs and several metals, principally mercury. Fluid Packaging contends that based upon the results of a Preliminary Assessment/Site Investigation (PA/SI) and the subsequent on-site investigation activities (including soil, ground water, and wastewater-related sampling) indicate that Site operations have not substantially contributed to the PAH or mercury concentrations within the sediments.

As early as 1974, there have been documented releases from the Fluid Packaging site discharging process wastewater into a storm drain, which discharges into the Cedar Bridge Branch of the Metedeconk River.

Off-Site Source Areas

Fluid Packaging contends that there are several probable off-site PAH and metals contaminant sources unrelated to Site Operations have been identified to the west and southwest of the current drainage channel.

Both the Department and Fluid Packaging's consultant Environ investigated the off-site source contamination on April 22, 1999. Upgradient sediment sampling was performed to identify a source that was contributing to the contamination. The results of this sampling could not clearly identify a upgradient contributor to the contamination. Environ has claimed that the elevated PAH and metals concentrations within the drainage channel sediments are generally positioned within narrow bands along the channel banks. Similar contamination patterns within the upgradient portion of the drainage channel, if still present following the widespread soil re-working activities, would be difficult to

locate given the large area upgradient of the storm water out fall and the lack of a clearly defined stream channel.

During the meeting of March 9, 2004, the Technical Review Panel noted that laboratory analyses of on-site soil samples containing elevated concentration of PAHs have also detected elevated estimated concentration of several tentatively identified compounds. These compounds (siloxanes and alkanes) are consistent with the types of personal care and laundry product packaged at the Site. The TRP reviewed the analysis of sediment samples collected upgradient of the site and noted that the samples did not detect siloxanes and alkanes, supporting the conclusion that the elevated constituent concentrations detected adjacent to Airport Road are unrelated to releases at the site.

Based upon this information, Environ was requested to provide a map with the alkanes and siloxanes sampling results in the sediment. The TRP compared this map to the mercury and PAH sampling concentration maps to determine if there is the same contaminant dispersion along the stream. If the dispersion was similar to the PAH and mercury distribution, additional sampling will be required for PAHs and Mercury. The Department would conclude that the contamination cannot be distinguished from known site related contaminants. If the contamination dispersion/concentration is similar to that of the mineral oil, then delineation of the stream will be required only for mineral oil.

Decision of the Technical Review Panel

The Technical Review Panel has determined that based upon the information provided by Environ there is no convincing evidence that the mercury and PAH contamination is from an off-site source. The Department has not been able to identify another off-site source for the mercury and PAH contamination in the stream. The dispersion of the alkanes and siloxanes was inconclusive.

The Department recommends additional delineation sampling be performed to adequately delineate the mercury and PAH and mineral oil contamination.