

## NJDEP FILL GUIDANCE DOCUMENT

August 2011

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On August 11, 2011 the NJ DEP released the 'Fill Guidance at SRP Sites. The document provides guidance on the use of alternative fill and clean fill at SRP sites only where fill will be used as part of the remedial action.

Alternate Fill– Guidance is provided for establishing the use of alternate fill. The 'like on like' requirement means no new contaminants may be placed in an Area of Concern (AOC) other than those already determined to be present. The *75th percentile compliance* requirement means the fill is acceptable if the maximum contaminant concentrations in the fill are less than the 75th percentile of contaminants at the receiving AOC. (See App. A of Guidance document for calculation). Other compliance options may be used. Statistical-based evaluations (i.e. 95th percent upper conf. limit) using discrete samples where outliers are not excluded. This may require the collection of additional samples to provide sufficient data for statistical evaluation.

Sampling for the proposed fill requires collecting discrete samples from each source of donor material. Donor source locations may include both in and out of state sources. The Sampling Frequency Guide is outlined in Table 1 of the document. Sampling frequencies apply to each source of donor material.

**Analytical Requirements for Alternate Fill—TCL+30/TAL and EPH (NJDEP EPH Rev.03). Hexavalent Chromium would be required if elevated Chromium concentrations are present or if contaminant of concern. pH and clay content may be required to ensure geophysical compatibility.**

**Impact to Groundwater (IGW) for Off-Site sources must also be addressed.** If contaminant levels in the donor material are below the greater of the default IGW or the AOC-specific IGW-SRS at the receiving site, no further evaluation is needed. However, SPLP testing would be required when contaminants are below the default IGW screening levels or SPLP testing is not the basis for a site-specific IGW SRS under the following circumstances:

- where the alternative fill will be used at receiving AOCs where no ground water remediation or monitoring will be employed; or
- where the fill will be placed near (professional judgment is required for this determination, but generally within two feet would be considered reasonable) or below the seasonally high water table.

### ALTERNATE FILL

TCL VO+10

TCL BNA+20

TCL Pesticides

TCL PCBs

TAL Metals

Cr+6

Total CN

NJ DEP EPH

(Contingent SPLP):

SPLP BNA

SPLP Pesticides

SPLP PCBs

SPLP Metals

SPLP Cr+6

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**Please note, SPLP Aluminum, Manganese, Silver and Zinc are not required.**

**Clean Fill**— Because the various locations that produce clean fill are based on a blending process, which may include in and out of state sources, the guidance document discusses the need to thoroughly evaluate through a review of the source history and operations to develop a sampling and analysis plan. Table 2 summarizes the sampling frequency that should be used. Two sampling frequencies are listed—default sampling and reduced sampling. Default Sampling is used when there is little or no prior data. Reduced Sampling may be used when prior assessment of the fill has been performed.

**Analytical requirements for Clean Fill—TCL+30/TAL and EPH (NJ DEP EPH). Hexavalent Chromium is not required unless fill is from an urban area or is not from a virgin source. pH and clay content may be necessary to determine geophysical compatibility. SPLP analysis generally is not expected to be needed, as clean fill is expected to meet the IGW screening levels.** Should there be exceedences of the IGW screening levels, then SPLP would be required on at least three samples per donor material. These samples should be of the highest contaminant concentrations found.

The Fill Guidance document can be found at: [http://www.nj.gov/dep/srp/guidance/srra/fill\\_protocol.pdf](http://www.nj.gov/dep/srp/guidance/srra/fill_protocol.pdf)

### CLEAN FILL

TCL VO+10

TCL BNA+20

TCL Pesticides

TCL PCBs

TAL Metals

Cr+6

Total CN

NJ DEP EPH