



Technical Memo

NJDEP Fill Guidance Document, Version 2.0
Issued December 29, 2011

Updated: October 22, 2014

In 2011 the NJDEP released the “Alternative and Clean Fill Guidance for SRP Sites”. This technical guidance applies to the use of alternative fill and clean fill only at SRP sites only where fill will be used as part of the remedial action.

Alternate Fill

- “Like-on-like” requirement
 - No new contaminants may be placed in an AOC other than those already determined to be present.
 - Exceptions: certain PAHs can be considered the same contaminant. If their relevant ingestion-dermal health based criteria are the same. e.g. Benzo(a)pyrene and Dibenzo(a,h)anthracene both have health based criteria of 0.06mg/kg (residential).
- 75th percentile compliance requirement
 - Maximum contaminant concentrations in the fill must be less than the 75th percentile of contaminants at the receiving AOC (See Appendix A of Guidance document for calculation)
- Other options:
 - Statistical-based evaluations (e.g. 95th percent upper confidence limit) using discrete samples, outliers are not excluded, and all other statistical requirements for this evaluation are met. This approach may require collection of additional samples to provide sufficient data for statistical evaluation.
- Donor site evaluation:
 - Sampling frequencies apply to each source of donor material. See Table 1.
Note: Historic Fill may require additional sampling
 - Default Sampling – no prior data
 - Reduced Sampling – some prior assessment
 - Sampling not required where sufficient data exists, e.g. a completed RI.
- Analytical Requirements for Alternate Fill:
 - TCL/TAL+30
 - EPH (NJDEP EPH 10/08 Rev 3)
 - If Cr⁶⁺ may be a COC or total Cr concentrations are elevated, analyze the samples for Cr⁶⁺
 - To ensure geophysical compatibility of receiving AOC and donor material, other analyses may also be needed, such as pH and clay content.
- Impact to Groundwater (IGW)

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- Must be addressed for off-site sources
- To assess contaminant levels in the donor material, results shall be compared to the greater of the default IGW screening levels or the AOC-specific IGW-SRS values at the receiving site (these values determined by SPLP results)
- If **below** IGW Levels of Concern or AOC-specific IGW-SRS:
 - The material may be used as alternative fill
- If **above** IGW Levels of Concern or AOC-specific IGW-SRS:
 - Collect and analyze at least 3 samples per donor AOC for SPLP testing using the NJDEP SPLP guidance
 - If SPLP results, when compared to NJDEP Default Leachate Criteria, show:
 - No IGW - material can be used as alternative fill
 - Potential IGW – material should not be used

Clean Fill

- Because 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 - used when there is little or no prior data.
 - Reduced Sampling - used when prior assessment of the fill has been performed.
- Clean fill may include contaminated material that has been treated so it meets the definition of clean fill.

The Fill Guidance document can be found at:

http://www.nj.gov/dep/srp/guidance/srra/fill_protocol.pdf

Thank you for your continued use of IAL's services

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