Site Remediation Reform Act (SRRA) Listserv Archives
September 2, 2020 - [EXTERNAL]: Free and Residual Product and Remedial Action Permits

From: NJ Department of Environmental Protection
NJDEP@public.govdelivery.com

To: NJDEP@public.govdelivery.com

Date & Time: 9/2/2020 6:39:00 PM

Subject [EXTERNAL]: Free and Residual Product and Remedial Action Permits

[EXTERNAL]: Free and Residual Product and Remedial Action Permits

The New Jersey Department of Environmental Protection (Department) has been receiving Ground Water Remedial Action Permit (RAP) applications for sites where free and residual product have not been properly remediated in accordance with the Technical Requirements for Site Remediation [N.J.A.C. 7:26E-5.1(e)]. Active System Ground Water RAP Applications have included proposals for final long-term remedies for free product recovery in the form of socks/sorbent pads, High Intensity Targeted (HIT)/ Enhanced Fluid Recovery (EFR) events, and/or manual recovery (e.g., bailing) of free product in impacted wells. These methods of free product recovery are only acceptable as short-term interim remedial measures (IRMs) when source material (i.e., residual product in soil) is being investigated and remediated. Please be advised that an Active System Ground Water RAP will not be issued when the source material has not been properly addressed and the long-term remedy is to perform sporadic free product recovery events in impacted wells.

At sites where free product is present, the source area should be fully investigated and remediated. Sporadic recovery of free product from wells is not considered remediation of the source area. Active System Ground Water RAP Applications should contain a Remedial Action Report (RAR) that addresses the full characterization, delineation, and remediation of the source of the contamination, as well as a remedy that addresses the long-term treatment of free and residual product (if residual product has not been fully remediated).

In situations where intermittent free product is present in monitoring wells and previous investigations have not identified a source, additional investigations of soil and ground water should be conducted in the immediate vicinity of these areas in all directions, including upgradient.

In certain cases, these investigations should be performed in close proximity to the monitoring well(s) even if it means abandoning and replacing the monitoring well(s), as source material may exist immediately adjacent to the monitoring well(s). If additional investigation does not identify other source areas, then the focus should be directed to the monitoring well(s) itself since it may be possible that residual product is present near and/or in the sand pack, especially if the well(s) has had a long history of product recovery prior to the presence of the product being intermittent. In these cases, the monitoring well(s) should be cleaned with surfactants and redeveloped or replaced. Replacement monitoring wells should be installed within five (5) feet of the original well and the original well properly abandoned. This information, as well as any other information that has been collected, can be used to support the LSRP’s independent professional judgment that a source of free product no longer remains.

Areas in the vicinity of monitoring wells that have had a history of free product should be thoroughly investigated prior to the conclusion of the remedial action and the submission of a Ground Water RAP Application. After the remediation of free product has been performed and appears to have been successful, it is possible that free and residual product may still be present in the areas between monitoring wells that were used to delineate the product and dissolved contamination. Investigation and/or monitoring of these areas should be conducted prior to the conclusion of the remedial action and submission of a Ground Water RAP Application. Maps and cross-sections depicting the farthest extent of free and residual product, as well as all prior and current sources of ground water contamination, should be provided in the RAR. Investigations should have been performed throughout the mapped free and residual product area. This

includes the area within the effective radius of influence of any prior active remediation that was performed for that area and outside the effective radius if the mapped extent of product extends beyond the areas remediated.

All information describing how free and residual product have been addressed should be contained within the RAR submitted, and if necessary, Section K of the Ground Water RAP Application. The Ground Water RAP Guidance (https://www.nj.gov/dep/srp/guidance/#rap_gw) and Section 8 of the In-Situ Remediation: Design Considerations and Performance Monitoring Technical Guidance (https://www.nj.gov/dep/srp/guidance/#in_situ) provide additional guidance on what should be included in the RAR.

Last Updated: September 2, 2020