

Willkom, Mae - DNR

From: Willkom, Mae - DNR
Sent: Thursday, April 25, 2019 3:44 PM
To: Josh Miller (joshm@BAYWEST.com)
Cc: Gonnering, Dan D - DMA (daniel.d.gonnering.nfg@mail.mil)
Subject: Volk Field Draft Final RI Rpt Addendum 3
Attachments: RR606.pdf; RR991.pdf; SoilBaP_fromReport (002).pdf

DNR has reviewed the February, 2019 Draft Final Remedial Investigation (RI) Report Addendum 3 you submitted on behalf of Volk Field. DNR received a hard copy of the report on March 6, 2019. An electronic copy (CD) of the report was received on March 15, 2019. Review of the report was focused primarily upon information regarding munitions constituents only (as opposed to munitions investigation at the Munitions Storage Area).

With respect to the skeet ranges, it appears that degree and extent of the PAH contamination may not be fully defined adjacent to certain sampling locations on the outer edges of the sampling clusters at TS509 and TS510. In addition, procedures used to calculate background threshold values (BTVs) and to assess cumulative risk from polyaromatic hydrocarbons (cPAHs) do not fully comply with DNR requirements (see below for more detail). Moreover, some sampling locations at both TS509 and TS510 exceed all the proposed metrics (BTVs, cPAHs, and the WI non-industrial RCLs).

However, because few of the sampling locations exceed the WI RCLs for *industrial* land use, it may be appropriate to propose closure of these sites (with respect to the DNR BRRTS database), conditioned upon Wisconsin Continuing Obligations (COs) which would formally document requirements for maintenance of industrial land use. At each site, DNR would issue a final closure letter which would become the enforceable document by which WI COs are imposed. These letters would be issued after a formal case closure request form is submitted for each site, together with applicable closure review fees. Please note that at the few sampling locations where *industrial* RCLs are exceeded (i.e. #667 at TS509 and #056 at TS510), direct contact risk would first need to be addressed by either limited soil removal or maintenance of a cover over those areas. (See the attached RR-606 guidance document for more information on Case Closure and Wisconsin Continuing Obligations.)

BTV Calculations

Regarding calculation of site-specific background threshold values (BTVs), I submitted portions of your report to technical support staff in our DNR Central Office for review. I am told that your calculations combined data from two statistical subpopulations which is contrary to procedures presented in DNR guidance document RR-991 (attached), as shown below. Also attached is a pdf containing detailed comments superimposed upon two pages from Appendix F (pp. F-72 and F-84) and shown in red. I was advised that if a site-specific BTV for benzo(a) pyrene in soil were calculated as directed in RR-991 using the data you presented, the BTV would in fact be even lower than the WI non-industrial RCL of 0.115 mg/kg.

from a separable normal population. The subset of data falling along a line segment is considered a component population and its separate Q-Q plot constructed. These "component" Q-Q plots are shown in the left panels. An interesting aspect of this analysis is that the lowest identified component can be thought of as coming from background. Hence, the decomposition procedure can be followed for estimating the statistics for site-specific background level at remediation sites, specifically in identifying a background threshold value (BTV). Once determined, any concentration greater than the BTV can be concluded as exceeding background.

cPAH Analysis

As we previously discussed by telephone, the analysis conducted to assess cumulative risk posed by PAHs is intended for use on sites with *non-industrial* land use only and is therefore not applicable to sites at Volk Field. Even at a non-

industrial site, such an analysis would have required pre-approval by DNR prior to its use, as well as submittal of a review fee.

As cited in your report, the groundwater pathway at TS509 and TS510 appears to have been previously addressed by submittal of SPLP data within the January, 2015 RI report.

Thank you for your submittal. Please let me know, if you have any questions or concerns going forward.

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