



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

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NIROP FRIDLEY  
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REPLY TO THE ATTENTION OF: SRF-5J

May 17, 2002

Mr. Jeff Meyers, PE, CHMM  
Code ES32  
Southern Division, Naval Facilities Engineering Command  
P.O. Box 190010  
North Charleston, SC 29419-9010

**Subject:** *Review of change pages for the Remedial Investigation for Operable Unit (OU) 3, dated April, 2002 for Naval Industrial Reserve Ordnance Plant Fridley, Fridley, Minnesota.*

Dear Mr. Meyers:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the change pages for the Remedial Investigation Report for Operable Unit 3 which we received May 8<sup>th</sup>, 2002. In general, the changes pages look very good. However, per our discussion at the May 8<sup>th</sup>, 2002 partnering team meeting, the Agency has the following additional suggested changes to address sub area E.

**Section 7.4, Operable Unit 2, Minor Frequent Construction Worker, second paragraph of section, page 7-14.** Please revise the second paragraph as follows:

“One remedial action alternative for surface soil contaminated cPAHs in sub area A4 would be the no-action alternative. Under this remedial action alternative surface contamination in sub area A4 would be left in place and continue to present an unacceptable risk to the minor frequent construction worker.

In sub area E the number of sampling data points was insufficient to calculate a 95 percent UCL of the mean and therefore maximum concentrations were utilized as exposure concentrations in the refined risk assessment. Carcinogenic PAHs (as BaP equivalents) at sample location EB004 at a depth of 1-3 feet bgs are largely responsible for the risk exceedance. This concentration of cPAHs (as BaP equivalents) corresponds to approximately 1.5 times the target risk and is approximately 2 times higher than the next highest concentration in sub area E. (EB004, with a 4.1 mg/kg concentration of cPAHs, does not appear to be a hot spot given that this location only slightly exceeds the target level cPAH concentration of 4.0 mg/kg.) Therefore, given the highly conservative nature of this approach, and the fact that only one location slightly exceeds the target risk, a risk-based decision has been made not to address the cPAHs found at sub area E.”

**Section 7.4, Operable Unit 2, Minor Frequent Construction Worker, third paragraph of section, page 7-14.** Please revise the third paragraph as follows:

“A second remedial action alternative to address unacceptable risks found in surface and subsurface soil contamination in sub area A4 would be an institutional control to restrict surface and subsurface activity in the areas of concern.

Again, in sub area E the number of sampling data points was insufficient to calculate a 95 percent UCL of the mean and therefore maximum concentrations were utilized as exposure concentrations in the refined risk assessment. Carcinogenic PAHs (as BaP equivalents) at sample location EB004 at a depth of 1-3 feet bgs are largely responsible for the risk exceedance. This concentration of cPAHs (as BaP equivalents) corresponds to approximately 1.5 times the target risk and is approximately 2 times higher than the next highest concentration in sub area E. (EB004, with a 4.1 mg/kg concentration of cPAHs does not appear to be a hot spot given that this location only slightly exceeds the target level cPAH concentration of 4.0 mg/kg.) Therefore, given the highly conservative nature of this approach, and the fact that only one location slightly exceeds the target risk, a risk-based decision has been made not to address the cPAHs found at sub area E.”

**Section 7.4, Operable Unit 2, Minor Frequent Construction Worker, last paragraph of section, page 7-14, continued on page 7-15.** Please revise the last paragraph as follows:

“A third remedial action alternative to address unacceptable risks found in surface soil contamination in sub area A4 would be a response action. Surface soil concentrations of cPAHs found in sub area A4 were significantly (60 mg/kg compared to 4 mg/kg) above the target level concentrations. For the response action, surface soil (0-3 feet) contaminated with cPAHs would be removed from sub area A4, disposed of off-site at an appropriate facility, and replaced with clean fill.

Again, for sub area E the number of sampling data points was insufficient to calculate a 95 percent UCL of the mean and therefore maximum concentrations were utilized as exposure concentrations in the refined risk assessment. Carcinogenic PAHs (as BaP equivalents) at sample location EB004 at a depth of 1-3 feet bgs are largely responsible for the risk exceedance. This concentration of cPAHs (as BaP equivalents) corresponds to approximately 1.5 times the target risk and is approximately 2 times higher than the next highest concentration in sub area E. (EB004, with a 4.1 mg/kg concentration of cPAHs does not appear to be a hot spot given that this location only slightly exceeds the target level cPAH concentration of 4.0 mg/kg.) Therefore, given the highly conservative nature of this approach, and the fact that only one location slightly exceeds the target risk, a risk-based decision has been made not to address the cPAHs found at sub area E.”

If you have any questions regarding this letter, please feel free to contact me at (312) 886-5907.

Sincerely,



Craig Thomas, P.G.  
Remedial Project Manager  
Federal Facilities Response Section

cc: David Douglas, MPCA