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16 February 2004

Mr. Yuriy Neboga
Pennsylvania Department of Environmental Protection (PADEP)
Southeast Regional Office
ECP-Special Projects Section
2 East Main Street
Norristown, PA 19401

Subject: Response to PADEP Comments on
Final IR Site 10 Soil Letter Report to Support No Further Investigation at this Time, NASJRB, Willow Grove, PA

Dear Mr. Neboga:

On 31 December 2003, EA received PADEP comments on the "Final IR Site 10 Soil Letter Report to Support No Further Investigation at this Time" (letter by Seth Pelepko of PADEP). This letter is a response letter to the PADEP comments incorporating the phone call discussion with Seth Pelepko (PADEP) on 9 January 2004 which was summarized in the email EA sent to PADEP (Yuriy Neboga) on 5 February 2004.

PADEP Comment

The Department does not agree that soil and groundwater data currently available for the benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; and indeno(1,2,3-cd)pyrene support the idea that potential remaining impacts in soil with respect to these compounds are limited in extent. The analytical sensitivity achieved for these compounds during the 2003 sampling event was in excess of the groundwater medium specific concentrations (MSCs) for a non-residential used aquifer at all sampling locations. Even though the limit related to the practical quantitation limit (PQL) was achieved at some of the monitoring well locations for benzo(a)anthracene; benzo(g,h,i)perylene; and indeno(1,2,3-cd)pyrene; the direct contact MSC, not the soil-to-groundwater MSC, drives the risk for these polycyclic aromatic hydrocarbons (PAHs) in soil media. Therefore, the objective of supporting limited soil impacts using contaminant distribution in groundwater requires greater analytical sensitivity than attaining the Statewide Health Standard for groundwater.

Because the PAHs discussed above are not very mobile (i.e., they are characterized by low solubilities coupled with high partition coefficients) and the risks associated with them are driven

by direct contact, the logic applied to this investigation is questionable. Therefore, in lieu of groundwater sampling using analytical techniques with lower method detection limits, limited soil sampling for the waste oil shortlist parameters may be considered in the vicinity of the former waste oil underground storage tank (UST), the known AOC for these compounds at IR Site 10.

The Department does not intend to render a final decision for all IR Site 10 compounds of concern (COCs) in soil until the supplemental data discussed in this letter are received.

EA Comment Response

Based on the 2003 soil analytical results for benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; indeno(1,2,3-cd)pyrene, the laboratory detection limits did not exceed the MSCs. Therefore, the 2003 soil analytical results for these PAHs achieved sufficient sensitivity. Note that the soil analytical results and/or laboratory detection limits are below the applicable MSCs except for the following constituents. The detection limits for bis(2-chloroethyl)ether, n-nitroso-di-n-proylamine, 2-nitroaniline, 3-nitroaniline, 4-nitroaniline, and EDB were above the MSC. In reference to bis(2-chloroethyl)ether, n-nitroso-di-n-proylamine, 2-nitroaniline, 3-nitroaniline, and 4-nitroaniline, EA and PADEP agreed that no changes need to be made to the report in reference to these compounds based on the fact that these compounds are not associated to the releases that occurred on the site. In addition, the above compound results are below the applicable PQLs. In reference to EDB, the lab was contacted about the method detection limit for EDB. The lab stated that based on the samples received a percent solid correction had to be completed to analyze the samples. Since EDB is a potential contaminant of concern, EA and PADEP agreed that the groundwater data will be utilized to support the conclusion that it is not likely present in substantial amounts in IR Site 10 soil.

The above discussion on bis(2-chloroethyl)ether, n-nitroso-di-n-proylamine, 2-nitroaniline, 3-nitroaniline, 4-nitroaniline, and EDB is based on the 16 December 2003 conference call between PADEP and EA which was summarized in a letter from EA to PADEP dated 16 December 2003 (Response to PADEP Comments on Draft IR Site 10 Soil Letter Report to Support No Further Investigation at this Time, NASJRB, Willow Grove, PA). Note that the MSC was selected as per the guidance in the PADEP Act 2 Technical Guidance Manual, Section II Remediation Standard, Section B Statewide Health Standard, dated 4 May 2002. The MSC was also selected as approved by PADEP in the PADEP approved *Final Work Plan for Various Fieldwork Efforts, Installation Restoration Program Site 10 and 11, Naval Air Station Joint Reserve Base, Willow Grove, PA* dated March 2003.

Please note that this report addresses soil alone and not groundwater for IR Site 10. In addition, please note that this report is supporting "No Further Investigation at this Time" because the soil in the source area is not accessible for sampling. The Navy understands that should land use change and the source area becomes accessible or should the property be transferred, soil sampling in the source area, may be required. In addition, the option of "No Further Investigation at this Time" was discussed and agreed to by PADEP prior to the submittal of the report.

EA is planning on conducting a 2nd round of ground-water sampling at IR Site 10 NASJRB Willow Grove in February 2004. The groundwater constituents will be analyzed at lower method detection limits as per PADEPs recommendation as stated in the EA email sent to PADEP on 5 February 2004. However, please note that during the 1st round of ground-water sampling (2003)

with the exception of several samples that required dilution or sample correction based on sample content the laboratory detection limits were met as presented in the PADEP approved *Final Work Plan for Various Fieldwork Efforts,Installation Restoration Program Site 10 and 11, Naval Air Station Joint Reserve Base, Willow Grove, PA* dated March 2003. Once the analytical results are validated and screened, EA will forward the 2nd round groundwater results in order for PADEP to render a final decision for all IR Site 10 compounds of concern in soil.

If you have any questions or comments please do not hesitate to call me at 302 325-3560.

Sincerely,

Maria L. Magilton
Project Scientist

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