



DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE, NORTHEAST
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PHILADELPHIA, PA 19112-1303

N00158.AR.000238
NAS WILLOW GROVE
5090.3a

5090
Code BPMP/RL
Ser: 06-059
September 14, 2006

Ms. Lisa Bradford (3HS11), Remedial Project Manager
U.S. EPA Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: DRAFT REMEDIAL INVESTIGATION ADDENDUM REPORT FOR SITE
5 - FIRE TRAINING AREA, JUNE 2006, NAVAL AIR STATION JOINT
RESERVE BASE, WILLOW GROVE, PA

Dear Ms. Bradford:

The Navy's responses to EPA comments on the subject draft Remedial Investigation Addendum report for Site 5 are provided as enclosure (1). Based on these comments and responses, the document will be revised and resubmitted as final.

If you have any questions, please do not hesitate to contact me at (215) 897-4908.

Sincerely,

Robert F. LEWANDOWSKI, P.E.
By direction of BRAC PMO

Enclosure:

(1) Navy Responses to Comments from USEPA Region III on the Draft Remedial Investigation Addendum Report for Site 05 - Fire Training Area, June 2006 (EPA Comments dated July 17, 2006)

Copy to:

J. Edmond, NASJRB Willow Grove
C. Frye, FEC MIDLANT
A. Flipsie, PADEP
R. Turner, TtNUS



**NAVY RESPONSE TO EPA COMMENTS
REMEDIAL INVESTIGATION ADDENDUM FOR SITE 5 – FIRE TRAINING AREA
NAS JRB WILLOW GROVE, JUNE 2006**

(EPA Comments dated July 17, 2006)

General Comment: *I have reviewed the subject document and have found it to be well written and concise. In order to provide a thorough understanding of groundwater flow and contaminant fate and transport I do have the following comments to offer you that would assist in a thorough evaluation of the groundwater at the subject site for your consideration.*

General Response: None.

Specific Comments:

1. *Section 5.2 Groundwater Flow Directions. Indicate the gradient observed in the vertical as well and compare to the horizontal gradient and report this in the narrative. The cross section should illustrate the direction of ground water flow through use of equipotential lines see comment below on figure 6.*

Response: [Please note that Figure 8 depicts the Site groundwater flow cross section while figure 6 features isoconcentration lines of total VOCs in the intermediate groundwater zone.] This response assumes that the EPA comment is referring to Figure 8.

Navy agrees to add the requested groundwater flow direction information to Figure 8 and corresponding text.

2 *Figure 6. Equipotential (of hydraulic head) lines should be depicted on this cross section to show the potential direction of ground water flow in cross section (i.e, flow net) along the slice of the identified projection of the centerline of the ground water plume. What will be evident is that there is a strong vertical gradient, which may influence the contaminant plume migration as well. This should be discussed in the narrative and may have implications on the monitoring network that would be developer for the Remedial Alternative analysis (i.e additional monitoring wells may be needed to monitor vertical extent and remediation progress).*

Response: [Please note that Figure 8 depicts the Site groundwater flow cross section while figure 6 features a plan view of isoconcentration lines of total VOCs in the intermediate groundwater zone.] This response assumes that the EPA comment is referring to Figure 8.

Navy agrees to add the requested groundwater flow direction information to Figure 8 and corresponding text as well as a mention of the need to consider vertical flow and the potential need for additional monitoring wells to monitor vertical flow in any remedial alternative considered for the site.