



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE
Governor

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

Memorandum

Date: 8/10/2010

To: Greg Zalaskus, Case Manager
Bureau of Case Management

From: Joseph Marchesani, Hydrogeologist
Bureau of Ground Water Pollution Assessment

Subject: Picatinny Arsenal, Dover, New Jersey
Record of Decision for Groundwater & Surface Water, Draft- Final
Site 78 (PICA 013)
July 2010

The Bureau has received and reviewed the subject document. The document is unacceptable as submitted. The Building 91 Vapor Intrusion Evaluation appears to have triggered all NJDEP action levels.

Preferred Remedy Description

Picatinny proposes Monitored Natural Attenuation (MNA) and as the aquifer remedy for the Trichloroethene, cis-1,2-dichloroethene and Vinyl Chloride ground water plumes. The remediation time frame for this remedy is 1.9, 3.2 and 3.8 years respectively for each compound. These timeframes would be acceptable, however, pursuant to N.J.A.C. N.J.A.C. 7:26D-2.2(a)4vi and vii(6) and N.J.A.C. 7:26E-6.3(d)7 the Department shall not approve a remedy of MNA if vapor intrusion poses a threat to human health that has not been mitigated.

Vapor Intrusion Evaluation

Picatinny asserts that the compound of concern is Vinyl Chloride and that the average Total Volatile Organic Concentration within building 91 breathing zone air averaged about 240 ppb (ug/l). The reviewer assumes the correct units are 240 ug/m³. (but it could also be ppbv). However, it is unclear if a vapor intrusion investigation was conducted in accordance with N.J.A.C. 7:26E-1.18. This section of the Technical Rules requires a vapor intrusion investigation pursuant to the provisions listed and the NJDEP Vapor Intrusion Guidance (VIG) if groundwater, soil gas or indoor air quality results indicate parameter specific screening levels in the VIG have been exceeded.

The Site Remediation Rules can be accessed at:

<http://www.nj.gov/dep/srp/regs/> .

Additional information regarding the NJDEP VIG can be obtained from:

<http://www.nj.gov/dep/srp/guidance/vaporintrusion/> .

Comments:

- 1) Page 2-5- The results submitted by Picatinny of 240 ppb TVOC should be broken down into the individual compounds and compared to the applicable indoor air screening levels. The units should be reported as ug/m^3 .
- 2) A result of 240 ppbv or $240 \text{ ug}/\text{m}^3$ of either vinyl chloride or trichloroethene exceeds the the applicable indoor air screening levels and the Health Department Notification Levels (HDNL). The HDNL are 30 ppbv or $70 \text{ ug}/\text{m}^3$ for vinyl chloride and the 3 ppbv or $20 \text{ ug}/\text{m}^3$ for trichloroethene. It appears to the reviewer that immediate notifications and remedial actions are required pursuant to N.J.A.C. 7:26E-1.18(c)2vi(2) and (3) for Building 91.
- 3) A vapor intrusion evaluation for Building 91 should be conducted in accordance with N.J.A.C. 7:26E-1.18.

If there are any questions or concerns, please contact me at 609-292-0885.

JM./