UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
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Memorandum

Date: September 16, 2003

From: Chau Vu, Human Health Risk Assessor, Technical Support and Site Assessment Section

To: David Newton, Remedial Project Manager, NH & RI Superfund Section

Subj: Comments on the Limited Investigation Report, Plat 14 Lots 2 and 4, Plat 15 Lot 1, Berkeley Commons/River Run Development, Cumberland, Rhode Island (dated August 2003)

Thank you for the opportunity to review this report. In general, this report is clear and provides adequate evaluation of groundwater, surface water and sediment at the portion of the development property mentioned above which is included in the Peterson Puritan Superfund Site Operable Unit-2 (OU-2). One general comment is that Figure 2 could be better developed to specifically indicate that the western edge of this development property is part of the Superfund OU-2. I agree with the evaluation in the report that the levels of compounds found at the study area do not pose any unacceptable risk or hazard to the human health based on EPA standards.

For groundwater, surface water and sediment, a few metals were detected at levels above EPA Project Action Limits (PALs), which were based on either the risk-based values from EPA Region 9 PRG tables or EPA National Secondary Drinking Water Standards. Among these metals detected at exceeding levels, iron, aluminum and copper are considered essential nutrients by EPA and therefore do not need further risk evaluation. For the media studied, manganese, arsenic and barium were detected in some samples at levels exceeding the PALs. For chemicals with noncancer health effects, PALs used in this study were the EPA Region 9 values (based on hazard quotient of 1) divided by 10 to account for the additive effects of many chemicals. For manganese and barium, the exceeding detected levels were slightly above the PALs at less than 1 order of magnitude. Therefore, the assumed noncancer hazard index from detected manganese and barium levels would still be acceptable and below EPA noncancer hazard index of 1 for all chemicals of concern. For arsenic in sediment, detected levels were slightly above the risk-based PAL at about 1 order of magnitude, which would result in the excess risk within EPA acceptable risk range, considering the same conservative assumptions for exposure parameters that were used to develop the risk-based Region 9 values would be used to calculate this risk.

In summary, based on the information provided in the report, the cancer risks and noncancer hazards from a few detected metals at this study would be acceptable for EPA Superfund site and therefore, there is no need for any further risk evaluation or remedial action at the mentioned development property.