Redactions-CBI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

June 18, 2009

Mr. [redacted]
HGL Task Order Manager
8245 Nieman Road, Suite 101
Lenexa, KS 66214

RE: Final Work Plan, Remedial Investigation/Feasibility Study, Garvey Elevator Site, Hastings, Nebraska dated May 2009 (Work Plan)

Dear Mr. [redacted],

The subject document was submitted to the Environmental Protection Agency (EPA) under a cover letter dated May 29, 2009. The Response to EPA Comments on the Draft RI/FS Work Plan, Garvey Elevator Site – Hastings, NE (Response to Comments) and the Final Site Management Plan were also included as enclosures to the letter. The EPA has completed its review of the Response to Comments, the Final Site Management Plan, and the Work Plan. The EPA approves the Final Site Management Plan and the Work Plan, subject to the attached amendments. It is not necessary to submit a revised Work Plan or page changes.

If you have questions concerning the information in this letter, you can contact me at (913)551-7101.

Sincerely,

Brian Zurbuchen, Ph.D.
Remedial Project Manager
Iowa/Nebraska Remedial Branch

Enclosure

30284366

US Environmental Protection Agency (EPA) comments on the Final Work Plan, Remedial Investigation/Feasibility Study, Garvey Elevator Site, Hastings, Nebraska, May 2009.

1) Figure 4.3 – The following pathways, which were categorized as "Pathway may be complete, but data are lacking" do not need to be assessed in the risk assessment: Ingestion of ambient air from irrigation wells by current off-site resident / current commercial/industrial worker / future on-site resident / future off-site resident / future commercial/industrial worker; Dermal exposure to ambient air from irrigation wells by current off-site resident / current commercial/industrial worker / future on-site resident / future off-site resident / future commercial/industrial worker.

2) Section 4.5.1 – Regarding the assessment of inhalation risk of the gaseous phase carbon tetrachloride volatilized during sprinkler irrigation of fields with contaminated ground water, the EPA has not typically assessed this path. However, assessing this path does not seem unreasonable. There are different approaches to how we can assess this pathway. The approach we will use at this site is to use a limited amount of site specific information to make a conservative estimate of the potential exposure duration and inhalation exposure concentration, to derive an estimate of the increased cancer and non-cancer risk. In order to estimate the inhalation exposure concentration, assume uniform distribution of contaminant (in gaseous phase) within a cuboid oriented with its long axis aligned with the center pivot system. The length of the cuboid (l) can be assumed to be equal to the length of the center pivot system. The width of the cuboid (w) can be assumed to be equal to the width irrigated when the center pivot is static. (It is recognized that the width irrigated varies depending on the distance from the center of rotation of the pivot. Assume an average width over the length of the center pivot.) The height of the cuboid (h) can be assumed to be equal to the height of the center pivot system, plus some amount that accounts for the trajectory of the spray. The quantity of contaminant within this volume is calculated by estimating an irrigation rate (in inches/year) applied over the area ($w \times l$) with irrigation water containing a concentration equivalent to that measured in the irrigation well closest to the source area. In order to ensure the estimate is conservative, assume the duration exposure is 4 months out of every year.

3) Section 4.1.1, 3rd Paragraph – For clarification, there were two former Garvey Elevator Superintendents that were interviewed by EPA and HGL. One indicated EDB was a component of the fumigant formulation used at the facility and one indicated EDB was not a component.

4) Section 4.1.1, 3rd Paragraph – According to the reference provided, the chemical profile of MaxKilll 10 indicates it contains 6.6% 1,2-dibromoethene (EDB), not 6.6% carbon disulfide.

5) Section 4.2.2.2, Upper Aquifer Zone – The last sentence of the final paragraph should state "On the basis of downgradient water quality alone, it is not possible to perform an evaluation of the effectiveness of the recovery wells in controlling downgradient migration of contaminants from the source area because the recovery wells have experienced equipment malfunctions that prevented their continuous operation."

6) Section 4.2.2.2 – References to the Highway 6 site are synonymous with the West Hwy 6 & Hwy 281 site.

7) Table 5.1 – The table, and supporting tables and text in the Work Plan and Quality Assurance Project Plan (QAPP), and Sampling and Analysis Plan (SAP), are revised as follows: Reporting limit for EDB in water is 0.02 ppb. The method used to achieve this reporting limit will be Method 504.1 (aka SW846 8011) "EBD and DBCP in Drinking Water by GC/ECD."

8) Table 5.1 – The groundwater PRG for chloroform is revised to 0.19 ug/l. This value is based on a total increase in carcinogenic risk from ingestion and inhalation of 1×10^{-6}, as found in the EPA Regional Screening Levels for Chemical Contaminants at Superfund Site, May 20009 (i.e. source (2) in the footnotes). EPA notes that this level is less than the typical laboratory detection limit for chloroform in water, which is approximately 2 ug/l. This detection limit would be roughly equivalent to a 1E-05 excess cancer risk. This would place it in the middle of EPA's "acceptable" range of 1E-04 to 1E-06 excess cancer risk range presented in the NCP.

9) Section 6.2.1.2, Subsurface Soils, Pesticides and SVOCs – The soil sample associated with the Former Chemical Storage Shed is SB-30, not SB-31, as was indicated in the second bullet.

10) Section 6.2.1.5, Subslab Soil Gas/Indoor Air, 4th Paragraph – The paragraph is amended with the following procedures: In the event COPC containing chemicals are found in the building, those that will be removed prior to the sample collection activities will be removed. Following their removal the building will be ventilated. Prior to and during the conduct of the vapor sampling the ventilation in the building will be returned to what is normally encountered during working conditions. Indoor air samples and subslab samples will be conducted simultaneously and over the same time period.

11) Section 6.2.2.1, Well Installation, Additional Monitoring Wells, 4th Paragraph – The paragraph is amended by adding three (3) additional soil sample depths. One soil sample will be collected in each aquifer zone – the upper aquifer, the intermediate aquifer between the two fine-grained units, and the deep aquifer. These soil samples will be submitted to a geotechnical laboratory for analyses described in the 5th Paragraph of the section. The analyses of these aquifer samples will include tests for maximum index density and unit weight using a

vibratory table (ASTM D4253). Geotechnical samples collected from the fine-grained will not be tested for maximum index density and unit weight using a vibratory table (ASTM D4253).

12) Table 6.2 – Table is revised to reflect lithologic sample and analysis changes in previous comment.

13) Appendix B (QAPP), Table 3.3 – The table is revised as Table 5.1 in the body of the RI/FS Work Plan was revised.