Georgia Department of Natural Resources

2 Martin Luther King, Jr. Dr., S.E., Suite 1462 East, Atlanta, Georgia 30334
Mark Williams, Commissioner
Environmental Protection Division
Judson H. Turner, Director
Land Protection Branch
Keith M. Bentley, Branch Chief

Reply To:
Response and Remediation Program
2 Martin Luther King, Jr. Drive, S.E.
Suite 1462, East Tower
Atlanta, Georgia 30334-9000
Office 404-657-8600 Fax 404-657-0807

July 25, 2012

COPY

Legion Industries, Inc.
c/o Mr. Charles A. Brown
373 Huntsville Road
Dallas, Pennsylvania 18612

Re: Voluntary Remediation Program application, January 26, 2012
Legion Industries, Inc., HSI Site No. 10614
Waynesboro, Burke County, Georgia
Tax Parcel ID No. 073 022

Dear Mr. Brown:

The Georgia Environmental Protection Division (EPD) has reviewed the January 26, 2012, Voluntary Remediation Plan Application submitted pursuant to the Georgia Voluntary Remediation Program Act (the Act). EPD has the following comments:

Conceptual Site Model (CSM):

1. The CSM must present a graphic, three-dimensional model that lists all complete and incomplete pathways, as well as all potential receptors. Unless Legion Industries provides information that contamination does not leave the proposed qualifying property or that controls are in place at adjacent properties to restrict exposure, soil and groundwater pathways must be assumed to be complete and be included in the CSM as follows:

   a. In order to more fully understand the groundwater in the source area for the CSM, the bottom of the first aquifer unit – defined by the clayey-sand located at approximately 250 feet below ground surface – must be characterized with intermediate wells. Due to the high VOC concentrations at PZ-2, a nested shallow- and intermediate-depth well pair must be located within 50-100 feet south/southeast of PZ-2. An intermediate-depth well is also necessary in the source area with MW-4 and MW-13. In addition to the wells requested in our October 27, 2011 letter, the proposed groundwater monitoring wells must be shown on a map in the VRP. The groundwater data at PZ-2 must also be shown on the cross-sections.

   b. Other receptors that may be exposed to contaminated soil or groundwater including construction workers, utility workers, etc. or use of groundwater including, but not limited to, drinking water, irrigation, etc. Please note that the soil exposure domain is defined as routine surficial contact to a depth of 2 feet, construction/utility worker to the depth of construction, and protection of groundwater at an established point of exposure from ground surface to the uppermost groundwater zone;

c. Exposure pathways involving groundwater discharge to surface water must include human and ecological receptors. The CSM should show the probable point of entry of groundwater to surface water. EPD notes that the tributary to Brier Creek is located approximately 300 feet from the site on the north side of Highway 25 (Burke Veterans Highway/Mills Road); and

d. If soil remediation is planned to Type 2 or Type 4 risk reduction standards, then the groundwater pathway must be assumed complete with the hypothetical point of drinking water exposure located at a distance of 1000 feet downgradient from the delineated site contamination.

Voluntary Investigation and Remediation Plan (VIRP):

2. While the application discusses soil excavation for soil remediation, there are no preliminary remediation plans for groundwater. The text on page 18 states 5 additional groundwater wells that EPD requested in the October 27, 2011 letter will be installed, but "further evaluation is necessary prior to development and implementation of a final remedy for groundwater". However, the milestone schedule states groundwater modeling will be conducted at the 36- and 54-month milestones. If groundwater modeling is planned for the site, it must be discussed in the preliminary remediation plan for groundwater. Information that must be provided includes: type of modeling, groundwater parameters to be collected, point of exposure, point of demonstration, etc. In accordance with Section 12-8-108(7) of the VRPA, a fate and transport model must be included in the application as recognized by the USEPA or USGS, including a table showing the most probable representative values for model parameters as adopted by the board. Regulatory citations for the model parameters used must also be provided.

3. Confirmation of the water sources for the businesses adjacent to and east of the site, as well as the trailer park located approximately 0.4 miles east of the site on the north side of Highway 25, must be provided.

4. As discussed in comment 7b of EPD's October 27, 2011 letter, hydraulic conductivity values from MW-1, MW-2, and MW-3 are averaged without a discussion as to whether this is appropriate. Based on groundwater elevation data, the text on page 6, and potentiometric maps shown in Figures 6 and 7, MW-2 is screened in a deeper aquifer and groundwater flow direction is towards the northwest as opposed to the northerly groundwater flow direction of the upper aquifer. A discussion regarding calculation of average hydraulic conductivity of the shallow aquifer must be provided, in addition to the method and wells used to calculate horizontal hydraulic gradient.

5. The following figures must be provided:

   a. An updated groundwater and surface water usage figure showing the area of release to 1000-feet downgradient; and

   b. An updated potentiometric map including: proposed point of demonstration (POD) wells to monitor migration in the contaminated aquifers; the nearest point of exposure or receptor; and surface water elevations should be determined and included on potentiometric map along with SW-1 and SW-2.

Schedule:

6. The proposed milestone schedule provided is incorrect. EPD will be requiring that semi-annual progress reports be submitted every 6 months according to the schedule determined by EPD upon application approval. Also, horizontal delineation must be completed within the first 24 months, not 36 months.

Risk Reduction Standards:

7. The following non-residential RRS values in Table 1 are different than the corresponding values found in Appendix B. These differences must be resolved and the tables revised.

TYPE 3 RRS CRITERIA		
Regulated Substance	**Table 1 Value (mg/kg)**	**Table B-4 Value (mg/kg)**
Delta-BHC	0.005	25
Methoxychlor	1.7	10
TYPE 4 RRS CRITERIA		
Regulated Substance	**Table 1 Value (mg/kg)**	**Table B-7 Value (mg/kg)**
1,4-Dichlorobenzene	1.0	1.4
Chlorobenzene	0.78	1.8
Cis-1,2-Dichlorbenzene	6.0	1.2
Trichloroethene	0.27	0.037
Vinyl Chloride	0.014	0.022
Methoxychlor	0.13	550
Toxaphene	15.0	9.3

8. The following non-residential RRS values in Table 2 are different than the corresponding values found in Appendix B. These differences must be resolved and the tables revised. The units should read µg/L in the Notes section. Additionally, Benzene is listed in Table 2, but it does not appear in Table B-3.

TYPE 3 RRS CRITERIA		
Regulated Substance	**Table 2 Value (µg/L)**	**Table B-3 Value (µg/L)**
1,4-Dichlorobenzene	70	75
1,1,2-Trichloroethane	200	5.0
Isopropylbenzene	5.0	1.0
Toxaphene	5.0	3.0
TYPE 4 RRS CRITERIA		
Regulated Substance	**Table 2 Value (µg/L)**	**Table B-3 Value (µg/L)**
1,4-Dichlorobenzene	519	7.2
Cis-1,2-Dichloroethene	200	29
Trichloroethene	38	5.2

9. EPD notes that the current toxicity values are not being used for 1,1,2-Trichloroethane and Tetrachloroethene in Table B-2. For your convenience the following table contains current toxicity values. All RRS values for these regulated substances must be re-calculated and any necessary tables revised.

Regulated Substance	Table B-2 Value	Current Value/Source
1,1,2-Trichloroethane	RfDi: No Value	RfDi: 5.7E-05 / PPRTV
Tetrachloroethene	RfDo: 1.0E-02	RfDo: 6.0E-03 / IRIS
	RfDi: 7.7E-02	RfDi: 1.1E-02 / IRIS
	SFo: 5.4E-01	SFo: 2.0E-03 / IRIS
	SFi: 2.1E-02	SFi: 9.1E-04 / IRIS

Legion Industries, Inc. must address these comments to EPD's satisfaction in order to demonstrate compliance with the provisions, purposes, standards and policies of the Act. EPD may, at its sole discretion, review and comment on documents submitted by Legion Industries, Inc. However, failure of EPD to respond to a submittal within any timeframe does not relieve Legion Industries, Inc. from complying with the provisions, purposes, standards and policies of the Act.

If you have any questions, please contact Jessica McCarron of the Response and Remediation Program at (404) 657-0485.

Sincerely,

David Brownlee
Acting Program Manager
Response and Remediation Program

cc: Charles Ferry, AMEC

File: 10614
S:\RDRIVE\JMcCarron\HSI\Legion Industries\VRP\vrp application comments letter july2012.doc