Georgia Department of Natural Resources
2 Martin Luther King, Jr. Dr., S.E., Suite 1066 East, Atlanta, Georgia 30334
Chris Clark, Commissioner
Environmental Protection Division
F. Allen Barnes, Director
Land Protection Branch
Mark Smith, 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 23, 2010

COPY

BFEL Indemnitor, Inc.
c/o Mr. Kenneth Anderson
One ConAgra Drive, CC-355
Omaha, NE 68102-5001

Re: Voluntary Remediation Program Application dated March 18, 2010
Estech General Chemicals Site, HSI Site No. 10196
Atlanta, Fulton County, Georgia
Tax Parcels 17-0191-LL0244 and 17-0191-LL0400

Dear Mr. Anderson:

The Georgia Environmental Protection Division (EPD) has received and reviewed the Voluntary Remediation Program (VRP) Application and Plan that has been submitted in lieu of Corrective Action Plan (CAP) by MACTEC on behalf of BFEL Indemnitor, Inc. In addition to the items and issues listed on the first page of the cover letter, the following comments need to be addressed to complete the VRP Application:

General Comments:

1. The Plan proposes to calculate average concentrations in soil across applicable exposure domains in order to determine the extent of surface soils that will be excavated and ultimately capped. The proposed domains and averaging methodology must be presented to EPD for approval and take into consideration the current and future land use at the properties. It should also be noted that the areas exceeding applicable risk reduction standards (RRS) have yet to be fully delineated in many areas on the qualifying properties and this would likely need to occur before any area averaging could be done.

2. Constituents of concern (COCs) that exceed residential standards for groundwater must be included in the groundwater monitoring program. Based on the groundwater data collected in 2007, the following COCs must be added: DDD, DDE, copper, nitrate, sulfate 1,2,3-trichlorobenzene, 1,2,4-trichlorobezene and zinc. This list should be updated with the recent groundwater data expected to be collected in 2010. The trichlorobenzene compounds are degradation products of lindane according to 2006 USEPA document cited in the Plan. It should also be noted that copper, nitrate, sulfate and zinc are not delineated yet in groundwater as stated in our November 18, 2008 letter.

3. In the November 18, 2008 letter, EPD also requested the installation of several new monitoring wells to more fully characterize the groundwater plume. The Plan does not indicate whether these additional wells will be installed prior to the 2010 groundwater monitoring event. The Plan also does not specify any sentinel wells around the capped area.

4. Surface water must meet in-stream water quality standards (ISWQS) for both aquatic toxicity *and* human health. Since ISWQs are set forth in the Rules for Water Quality Control, the Response and Remediation Program cannot grant variances or agree to less protective standards. In addition, EPD requires that if surface water continues to exceed ISWQS after 3 years of monitoring, then additional remedial measures must be implemented so that the qualifying properties can certify compliance within the requisite 5-year timeframe.

5. Excavated soils will need to be tested to ensure that they are not characteristically hazardous before being consolidated under the impermeable cover. Soils that fail testing (e.g., TCLP) will need to be treated prior to consolidation or otherwise disposed of off-site at a permitted disposal facility. Base samples must be collected from the excavated areas on a 20x20 grid to ensure that the subsurface soil complies with the Type 4 criteria.

6. According to the Hazardous Site Inventory, the M&J Solvents Site (HSI# 10096) exists immediately northwest and hydrologically upgradient of this site. The M&J Solvents Site has a confirmed release of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) to the groundwater, which could potentially be flowing in the direction of or onto the referenced site. Therefore, in order to confirm that the qualifying properties do not currently have any VOC/SVOC impacts to the groundwater, please have groundwater wells MW-104A, MW-104D, and the replacement well to be installed proximal to MW-21 sampled and analyzed for VOCs/SVOCs during the next groundwater monitoring event. Should a release of VOCs/SVOCs to the groundwater be identified on the qualifying properties, the vapor intrusion pathway will need to be reevaluated and potentially the environmental covenants regarding future structures on the qualifying properties.

7. According to Section 2.2 of the Plan, hydrologic data from the qualifying properties indicate a downward vertical gradient in the area of MW-110 and MW-111 (30 feet apart) but an upward vertical gradient in the area of MW-103A and MW-103D (nested). Drawing 4.2 also indicates that the groundwater elevation from MW-110 was anomalous due to drought and is partially screened in the bedrock. Please determine vertical gradients using appropriately nested wells in different zones.

8. Please include details of the proposed annual inspections and maintenance of the impermeable cover in a section called Long-Term Monitoring. Areas that are not to be capped, but where subsurface contamination still exists (i.e., Type 4 RRS areas with exposure controls) must also be monitored to ensure at least 2 feet of soil meeting applicable RRS is maintained and is not disturbed. This section should also incorporate the groundwater/surface water monitoring.

9. EPD is unable to provide a detailed review of the fate and transport modeling (Bioscreen-AT) in the Plan at this time. Since the modeling is scheduled to be updated with the new groundwater data to be collected in 2010, EPD will provide detailed comments at that time. Nevertheless, after a preliminary review of the model, EPD has the following comments that should be addressed in the updated model:

a. The model selected was designed as a screening-level model for natural attenuation of dissolved hydrocarbons from petroleum fuel release sites. Please justify the appropriateness of applying the model to pesticides. In addition, no model was used to evaluate potential impacts from heavy metals.
b. Both groundwater and soil concentrations (for leaching) must be proposed for all COCs that are to meet a Type 4 RRS with exposure controls. This includes the biodegradation products of lindane.
c. Please provide the calculations used to determine the site-specific half-life of 11 years for lindane.
d. The EPA chemical specific parameter table has been updated and the Koc value for lindane is now 0.0028 L/kg. It also appears that the same Kd may have been used for both the residuum and bedrock analysis although the foc is an order of magnitude lower for bedrock.
e. Please note that lindane also has a 7Q10 value of 0.08 ug/l and that under these conditions the stream may have a different dilution factor.
f. Since the model is using site-specific data, the unnamed stream must be gauged to collect the necessary stream flow data (e.g., flowrate, average channel width, etc.) as opposed to using scaled estimates from Peachtree Creek.
g. In all future model submittals, please include a list of input parameters for each COC being modeled.
h. Groundwater flow velocity should be 51 feet per year in the residuum to be conservative.
i. There is no discussion of how the model is to be field calibrated and validated (e.g., intermediate monitoring points between the source and point of demonstration).

Human Health Risk Assessment Comments:

10. It should be noted that the proposed exposure scenarios of construction worker and railroad worker are restrictive and may not allow for redevelopment of the property without recalculating new risk reduction standards.

11. Table I-1: The Type 1 groundwater RRS for antimony should be based on the detection limit. Please revise. The Type 1 groundwater RRS for benzo(a)anthracene is based on detection limit; please indicate as such with "DL" next to the value. Please revise the Type 2 RRS values for Thallium (see Comment 13).

12. Table I-2: The overall soil Type 1 RRS values and Type 3 subsurface soil RRS presented are correct. The Type 3 surface soil RRS values are incorrect. Please note, that according to §391-3-19-.07(8)(2) of the Rules for Hazardous Site Response (Rules), the surface soil must meet the subsurface criteria **and** not exceed items (i) through (iii) (i.e. RAGS equation values). In all instances, the values provided for surface soil Type 3 RRS exceed the subsurface RRS, which is incorrect. Please revise surface soil RRS as well as the overall soil Type 3 RRS, as appropriate.

13. Table I-3: Currently, there are no toxicity values for thallium. Therefore, the Type 2 soil RRS for thallium would be based on the higher of the Table 2 Appendix III value, background or detection limit. Please revise.

14. Table I-5: Specific toxicity data for some of the regulated substances were found to be incorrect. Pursuant to the adoption of the amendments to Chapter 391-3-19 of the Rules, the hierarchy for the selection of toxicity factors has been changed to the following:

    a. IRIS
    b. PPRTVs
    c. Other peer-reviewed values

    Since the EPA Regional Screening Level (RSL) table follows a similar hierarchy, it is recommended for risk assessment purposes, that toxicity factors be obtained from the EPA RSL table. Please revise toxicity values for arsenic, nickel (please use soluble salts), thallium (note: no toxicity values are available), 1,1,1-trichloroethane, 2,4-dinitrotoluene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, Chrysene, indeno(1,2,3-cd)pyrene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC, DDD, and DDE. Please note that the use of surrogate compounds to obtain toxicity factors is not allowed under the Rules. Please update the comments section to reflect this.

15. Table I-6: It was noted that the chemical-specific parameters for the leachability calculations (e.g. Koc, Kd, H') were obtained from the Soil Screening Guidance Technical Background Document or the Superfund Chemical Data Matrix (SCDM). Please revised the input parameters and leachability calculation using EPD's preferred hierarchy for chemical-specific parameters of:

    a. RSL table
    b. Soil Screening Guidance Technical Background Document
    c. SCDM

16. It is unclear in the Plan whether the Soil Screening Level equations were used in determining the leaching criteria for metals. If so, our comments pertaining to the dilution attenuation factor (DAF) still apply. Specifically, the use of a default DAF value of 20 is still not acceptable. A site-specific DAF may be calculated or a default DAF value of 1 may be used. Please ensure that the leaching values for all Type 4 RRS soil calculations are revised using the new default (1) or the site-specific DAF value.

17. In regards to the calculated lead and arsenic soil-water partition coefficients, EPD will not accept the geometric mean of the individual Kd values as the site-specific Kd value. Use of an arithmetic mean [or geometric mean for that matter] is allowed only in situations where the dataset is linear. The SPLP dataset provided for lead and arsenic is not linear (i.e., R^2 <0.80) and therefore does not exhibit a predictable pattern for leaching of contaminants. For instances where the dataset is not linear, EPD recommends the lowest individual Kd value be selected as the site-specific Kd value.

18. Table I-8: Please note that 2,4-dinitrotoluene and fluoranthene are not volatile. Therefore Volatilization Factors do not apply. Please see Comment 15 regarding chemical-specific parameters. Please update the VFs using the correct input parameters, if necessary.

19. IEUBK Model: Please note that the input parameters for the IEUBK model for Lead have changed and the current values are available at http://epa.gov/superfund/lead/products.htm. Please re-run the model, and include all input parameters, output, and model results in the appendix for review. Please note that the probability of the blood Lead level of a 6-yr old resident that is greater than 10 ug/L should be less than 5%. The model output provided had a probability of 5.342%, which is unacceptable. The overall Type 2 RRS for Lead is the lesser of the IEUBK model output and the leachability value determined by laboratory test or fate-and-transport modeling. Please revise the Type 2 RRS for Lead.

20. Table 4.11: Please note that regulated substances in sediment samples cannot be screened against industrial soil concentrations from USEPA Region IX Preliminary Remediation Goals. The RSL table should be used, in place of Region IX PRGs.

21. RRS values should be calculated for both nitrate and sulfate in groundwater as EPD considers them COCs for the qualifying property. Nitrate also has a primary maximum contaminant level of 10 mg/L under the Rules for Safe Drinking Water.

22. Summary Table: It is unclear to which RRS standard the facility is seeking compliance. Please provide a summary table including the maximum detected concentration, and all applicable RRS standards for review. This will be helpful in determining if the facility is in compliance with any applicable standard.

Ecological Risk Assessment Comments:

23. Table 6.2: The use of surrogates to "screen out" Chemicals Of Potential Ecological Concern (COPECs) is not allowed. If a regulated substance does not have an appropriate Ecological Screening Value (ESV), it should be carried forward in the risk assessment process. Therefore, delta-BHC should be carried forward.

24. Table 6.3: Since alpha-BHC, beta-BHC, delta-BHC and heptachlor do not have Region 4 Sediment ESVs, these regulated substances should be carried forward in the risk assessment process.

25. Table 6.7: The Raccoon Toxicity Reference Values (TRVs) listed in Tables 6.7, 6.16 and 6.17 for DDD, DDE, DDT, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC, heptachlor and dieldrin are incorrect. Their respective Uncertainty Factors (UFs) were not considered. Please correct these values and re-calculate the Hazard Quotients (HQs).

26. Risk Calculations for Ecological Receptors: Risk calculations indicate that site contaminate levels pose a risk to some of the site receptors. However, the text indicates that "...site remediation will likely involve re-grading and removal or capping...," which will destroy current ecological habitat and eliminate certain exposure pathways (i.e., surface soil). It is the opinion of the Risk Assessment Unit (RAU) that in order to ensure that future risk from site contaminates is eliminated for ecological receptors that the removal of ecological exposure needs to be fully documented in the complete Voluntary Remediation Application and Plan and that maintaining any barriers used to eliminate exposure be a requirement in the applicant's completed application. If the redevelopment activities do not achieve the aforementioned results, the applicant will be required to perform a Baseline Ecological Risk Assessment (BERA) that documents that there are no unacceptable risks to ecological receptors or additional corrective action will be necessary.

27. The sample detection limits for acenaphthene, acenaphthylene, endosulfan I, fluorene, and naphthalene must be provided in Table 6.4 so that the EPD can determine if these constituents should be eliminated as COPECs.

Schedule

28. Your proposal to submit the following items by December 31, 2010 is acceptable:

- Groundwater data collected within the preceding 6 months of the completed application.
- Updated fate and transport model with recent groundwater data.
- Updated RRS calculations using current and anticipated future conditions.
- Permission from CSX Transportation to conduct the proposed corrective action on CSX property. [Please note that if CSX does not consent to become a qualifying property, a CAP pursuant to §391-3-19-.06 of the Rules must be submitted for this parcel by December 31, 2010.]
- Updated cost estimate.
- Gantt chart schedule for implementation of remediation including appropriate milestones such as submittal of semi annual progress reports and final compliance status report.
- Updated groundwater and surface water usage map.
- Current Title Reports and Warranty Deeds for all qualifying properties

29. EPD requests the submittal of financial assurance for the amount of the updated cost estimate by no later than December 31, 2010. Model financial assurance instruments can be located at: http://www.gaepd.org/Files_PDF/forms/hwb/HSIModel.pdf.

30. A copy of the proposed Uniform Environmental Covenant (UEC) for the qualifying property (ies) and a list of names/contact information for adjoining properties with tax parcel ID numbers must be submitted by December 31, 2010. Model UEC documents can be found at: http://www.gaepd.org/Files_DOC/forms/hwb/modelcovenant.doc.

EPD's provisional approval of the March 18, 2010 VRP Application and Plan extends only to those technical aspects of the document that expressly require EPD's approval under applicable rules and statues. This approval is not an endorsement by EPD that it accepts as conclusive any representations made in the document. Nor does EPD guarantee or warrant that the document is free of errors or omissions. EPD may later withdraw approval of this document, in whole or in part, if EPD determines that withdrawal is necessary to ensure compliance with the applicable rules and statutes.

EPD hereby provisionally accepts Estech General Chemicals into the Voluntary Remediation Program pursuant to the March 18, 2010 VRP Application and Plan. The revised VRP Application and Plan addressing EPD's comments must be submitted by December 31, 2010. If you have any questions regarding this matter, please contact Mr. Yue Han at 404-657-8600.

Sincerely,

Mark Smith

Mark Smith, Chief
Land Protection Branch

c: Rhonda N. Quinn, MACTEC
Matt Adkins, CSX Transportation

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