MEMO TO FILE

Date: 8/10/16

From: Kirsten Hiortdahl

Site Name: VITAFOAM, INC.

ID: NONCD0002676

RE: Site Review Summary

Site Location (street, city and county where site is located)

- 2222 Surrett Drive, High Point, NC 27263

Potential RP or **Remedial Party** (address and phone contacts):

- Remedial Party: Ms. Candace Moeller, M.5 Corporation, 215 S. Elizabeth St, Spencerville, OH 45887 (Flexible Foam Products)

Current Status (direct oversight, REC, independent cleanup, BF agreement, no activities, etc.):

- Remedial Party entered into an AA with REC in April 2016

Brief Description of the Site (contaminants, contaminated media and the highest concentrations, type of business, etc.):

Site in operation since 1967 as a polyurethane foam manufacturing plant including slabstock and rebound foam production, and foam fabrication. Series of owners, purchased in 2005 by current remedial party. Multiple areas of concern/investigation and multiple soil exceedances for metals and chlorinateds. Previously excavated polyol impacted soil in the rail car unloading area impacts (2006) under the Aquifer Protection Section.

Soil boring B-9, in the outside maintenance area, detected PCE at 13 ug/kg and 1,1,1-TCA at 47 ug/kg in surface soils (0-2'). These were the highest chlorinateds detected in soils onsite during a 2006 Phase 2 investigation. The highest groundwater detections of PCE, 1,1,1-TCA and/or its degradation products (TCE) have been detected in MW-2, downgradient, on the other side of the building; suggesting chlorinates migrated for the N/NW (outside maintenance area) under the building S/SE towards MW-2 sinking to groundwater (soil borings near MW-2 were not indicative of a soil source area). 1,1-DCE (degradation product of TCE) and 1,1-DCA (both degradation products of 1,1,1-TCA) have had detections in MW-9; supporting the potential that significant mass is under the building in soils and reaching groundwater.

Brief Description of Actions Taken at Site so Far (RI, AA, RAP, etc.):

- Remedial Party entered into an AA with REC in April 2016

Risk Factors (water supply wells, vapor intrusion potential, surface water, soil contamination, sensitive receptors, property use, distance to residential houses, etc.):

- Vapor intrusion threat to office building- MW-2 TCE= 88.6 ug/L in 2015, plume appears to be migrating towards/under the office building. When run through the IHSB Vapor Intrusion Assessment Calculator (VISL, below), the hazard quotient (HQ) exceeds 1 (4.07), which poses an unacceptable risk.

IHSB -Brownfields Vapor Intrusion Calculator - Based on OSWER VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 3.45, November 2015 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial
Target Risk for Carcinogens	TCR	1.00E-05	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	0.2	Enter target hazard quotient for n
Average Groundwater Temperature (^{o}C)	Tgw	25	Enter average of the stabilized g

CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ
79-01-6	Trichloroethylene	**8.9E+01**	3.57E+01	**1.2E-05**	**4.1E+00**
		Cumulative		1.2E-05	**4.07E+00**
	If cumulative risk >1E-O4 or cumulative HQ>1 Unacceptable	**Risk/Cumulative HQ**			

- Potential vapor intrusion threat within the manufacturing building as soil and groundwater between B-9/MW-9 and MW-2 have not been fully defined.
- Residential area ~800' downgradient of site, onsite TCE concentration at downgradient property boundary (MW-20) was 16.4 ug/L in 2015. Plume not defined, vapor intrusion risk to downgradient residence unknown.
- Receptor survey indicates all nearby wells (within 1500') are inactive, public water is supplied. Within 1600' to 1700' are two wells used for irrigation and one for irrigation and drinking (public water is supplied). Wells are cross gradient to the site (due east).

Conclusion and Recommendation:

- <u>Vapor intrusion investigation of the office building due to VISL HQ exceedance</u>
- Soil and groundwater investigation under the manufacturing building to define the plume and determine if there is a vapor intrusion risk
- Downgradient plume delineation to determine if off site vapor intrusion risk is posed by TCE
- Due to detections of 1,1,1-TCA and TCE, sampling for 1,4-Dioxane in groundwater is warranted

Under the REC AA it is assumed these risks will be assessed and mitigated, as need be, as defined by the REC program.