STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

July 31, 2012

Mr. Scott Hayes
SUPR/ER&R
U.S. EPA, Region VII
901 North 5th Street
Kansas City, KS 66101

Re: Chicago Heights Blvd. VOC Plume
Intersection of Chicago Heights Boulevard & Elmridge Place,
Overland Missouri, St. Louis County
EPA ID MOSFN0703551

30267708

Dear Mr. Hayes:

The Missouri Department of Natural Resources' (Department) Hazardous Waste Program's (HWP) Superfund Section is officially referring the above named site for a time-critical removal action to mitigate a potential exposure threat to residents living in the area of investigation referred to as the Chicago Heights Blvd. VOC Plume. Recent sampling results identified chlorinated VOCs in sump water, sub-slab soil gas and indoor air in residences above EPA screening levels to be protective of long-term residential exposures. The results indicate actual exposures inside two homes.

PerkinElmer, Inc. (PerkinElmer), the Potentially Responsible Party (PRP), conducted in-home sampling in May 2012, to assess the potential vapor intrusion pathway posed to residences. The known source of VOC contamination originates from the former EG&G Missouri Metal Shaping (now owned by PerkinElmer) facility discovered as part of a previous investigation. A total of seven (7) single-family homes and three (3) apartment units were sampled for VOCs – indoor air and sub-slab samples in five (5) basements, and water samples from the sumps of three (3) homes were sampled along with sub-slab and indoor air from the three (3) apartment units. A summary of the results of this sampling is provided in the enclosures including a map of the investigation area.

The Missouri Department of Health and Senior Services have recommended that actions must be taken to mitigate the exposure risk to the residents. Based on the documented historical releases from the EG&G Missouri Metals Shaping facility, the proximity of the VOC groundwater plume to the residences, the detection of shallow and deep VOC-contaminated groundwater within the residential area, and previous and recent sub-slab and indoor air results, we believe that the Chicago Heights Blvd. VOC Plume site should be considered for a removal action.

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EPA has expressed an interest in the Superfund Section referring the Missouri Metals facility to EPA to allow a more comprehensive investigation of the vapor intrusion pathway as it relates to the exposure risk occurring in the off-site residential neighborhood. We have spoken with Arthur Wallace, Director, Environmental Safety and Health, for the PerkinElmer Missouri Metals facility, and he has requested that EPA coordinate with him on this removal action. Mr. Wallace's phone numbers are: Office (781) 663-5779; Cell (978)764-2772. As we move forward on the site; EPA, the Department and PerkinElmer will need to coordinate to determine the best path forward to mitigate future exposure risks and response actions that will eliminate these risks. At present the Department has a Consent Agreement with PerkinElmer to conduct investigations and necessary remedial actions at the Missouri Metals facility.

If you have any questions or need further information, please feel free to contact me by telephone at (573) 751-1388 or by email at dennis.stinson@dnr.mo.gov. Mr. Wane Roberts is the state project manager for this site. You also may contact Mr. Roberts by telephone at (573) 526-7309 or by e-mail at wane.roberts@dnr.mo.gov.

Sincerely,

HAZARDOUS WASTE PROGRAM

Dennis Stinson

Dennis Stinson, Chief
Superfund Section

Enclosures

c: Michelle Hartman, DHSS
Wane Roberts, HWP
Robert Hinkson, HWP
Arthur Wallace, PerkinElmer,Inc

Missouri Department of Health and Senior Services
P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Margaret T. Donnelly
Director

Jeremiah W. (Jay) Nixon
Governor

July 27, 2012

Dennis Stinson, Chief
Superfund Section
Hazardous Waste Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176

Dear Mr. Stinson:

The Missouri Department of Health and Senior Services (MDHSS) has reviewed the analytical results of the sampling conducted in May 2012 to assess the potential vapor intrusion pathway in the off-site areas of the PerkinElmer Missouri Metals Site in Overland, Missouri.

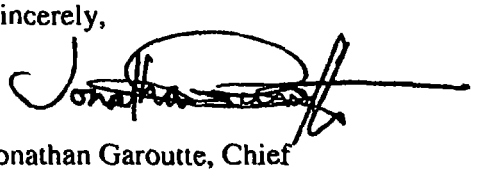
As you know, previous indoor air sampling occurred in 2001 in several residential homes located near the site. Trichloroethene (TCE) was detected in two of these homes; however, based on existing screening levels at that time, MDHSS concluded that the detections were not at levels expected to cause adverse health effects. Some time has passed since that initial sampling and screening levels for the chemicals of concern have become more conservative, therefore, MDHSS recommended additional sampling to re-evaluate the risk.

MDHSS is concerned about the indoor air levels found in the residences located at [redacted] These are the same two homes that had TCE detections in 2001. The recent sampling indicated indoor air levels in the basement of these two homes exceeded the current TCE screening levels based on non-cancer health effects and are near or exceeding a 1×10^{-4} cancer risk. These two homes also have sumps present and water infiltration problems that undoubtedly contributed to the indoor air levels. Given the previous sampling, the recent detections and evaluation, it is evident that exposure is likely occurring inside these homes at levels that are considered a health risk. MDHSS recommends that actions be taken as soon as possible to mitigate the risk to these residents. Along with mitigation efforts, additional samples should also be collected to better evaluate exposure in these homes.

The other homes sampled have lower-level detections in the indoor air and several of these other homes show significant detections in the subslab samples that threaten to impact the air inside these homes. This is a potential public health threat that needs additional evaluation. MDHSS recommends additional sampling to assess year-round conditions and further recommends expanding the sampling to include more homes that may be impacted.

If you have any questions regarding these recommendations, please contact Michelle Hartman of my staff at (573) 751-6102.

Sincerely,



Jonathan Garoutte, Chief
Bureau of Environmental Epidemiology

JG:MDH:mp

Residential Subslab Analytical Results - May 2012
Missouri Metals Site
Overland, Missouri

			PCE		TCE		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Vinyl Chloride	
Site-Specific Screening Levels[1]			93.6		4.3		2100		73		630		1.6	
Units			µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
House Address	Sample ID	Sample Date	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
[redacted]	SSV-01	05/08/12	4.2	2.7	4.4	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1
[redacted]	SSV-02	05/10/12	4.5 J	2.7	8.3 J	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1
[redacted]	SSV-03	05/10/12	ND	2.7	4.8	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1
[redacted]	SSV-04	05/08/12	4,400	54	200	43	ND	31	ND	31	ND	31	ND	20
	SSV-05	05/08/12	19,000	200	400	160	ND	120	ND	120	ND	120	ND	76
	SSV-05A	05/08/12	31,000	340	790	270	ND	200	ND	200	ND	200	ND	130
[redacted]	SSV-06	05/08/12	1,100	14	ND	11	ND	7.9	ND	7.9	ND	7.9	ND	5.1
	SSV-07	05/08/12	250	2.7	ND	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1
[redacted]	SSV-08	05/09/12	410 J	46	4,500 J	37	ND	27	840 J	27	ND	27	ND	17
	SSV-09	05/09/12	78	5.4	530	4.3	4.3	3.2	100	3.2	4.2	3.2	2.6	2
[redacted]	SSV-10	NA	Not Sampled due to water present at sub-slab sampling location.											
	SSV-11	NA	Not Sampled due to water present at sub-slab sampling location.											
[redacted]	SSV-12	NA	Not Sampled due to water present at sub-slab sampling location.											
	SSV-13	NA	Not Sampled due to water present at sub-slab sampling location.											
[redacted]	SSV-14	05/10/12	7.9	2.7	ND	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1
	SSV-15	05/10/12	3.8	2.7	ND	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1
[redacted]	SSV-16	05/10/12	49	2.7	ND	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1
	SSV-17	05/10/12	9.8	2.7	ND	2.1	ND	1.6	ND	1.6	ND	1.6	ND	1

Notes:

[1] - Site-Specific Screening levels as calculated in Table 5-1 of the Supplemental Investigation Work Plan (revised March 13, 2012).

RL - Reporting Limits.

ND - Not Detected.

PCE - Tetrachloroethene.

TCE - Trichloroethene.

DCE - Dichloroethene.

SSV-05A was collected with a 6 liter summa canister.

µg/m³ - Micrograms per cubic meter.

J - Estimated.

[redacted] - Exceeds Site-Specific Screening Level.

***A sample result will be also highlighted If the sample result is ND and half of the RL exceeds a screening level.**

Residential Indoor Air Analytical Results - May 2012
Missouri Metals Site
Overland, Missouri

			PCE		TCE		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Vinyl Chloride	
Site-Specific Screening Levels[1]			9.36		0.43		210		7.30		63		0.16	
Units			µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
House Address	Sample ID	Sample Collection Date	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
[redacted]	IA-01	05/08/12	1.4	0.068	1.2	0.054	0.052	0.04	ND	0.04	ND	0.04	ND	0.051
[redacted]	IA-02	05/10/12	0.45	0.068	0.59	0.054	ND	0.4	0.082	0.04	ND	0.04	ND	0.051
[redacted]	IA-03	05/10/12	0.37	0.068	0.78	0.054	ND	0.04	0.071	0.04	ND	0.04	ND	0.051
[redacted]	IA-04	05/08/12	35	0.68	2.4	0.54	ND	0.4	1.3	0.4	ND	0.04	ND	0.51
[redacted]	IA-05	05/08/12	0.9	0.068	0.91	0.054	ND	0.04	ND	0.04	ND	0.04	ND	0.1
[redacted]	IA-06	05/09/12	0.4	0.068	0.6	0.054	ND	0.04	0.055	0.04	ND	0.04	ND	0.1
[redacted]	IA-07	05/08/12	4.5	2.7	210	2.1	ND	1.6	71	1.6	ND	1.6	ND	0.051
[redacted]	IA-08	05/08/12	0.87	0.85	37	0.67	ND	0.5	23	0.5	ND	0.5	ND	0.64
[redacted]	IA-09	05/10/12	0.67	0.27	0.47	0.21	ND	0.16	ND	0.16	ND	0.16	ND	0.2
[redacted]	IA-10	05/10/12	0.23	0.068	1.9	0.054	ND	0.04	0.31	0.04	ND	0.4	ND	0.051
NA	AMB-01	05/09/12	0.21	0.068	0.41	0.054	ND	0.04	ND	0.04	ND	0.04	ND	0.051

Notes:

[1] - Site-Specific Screening levels as calculated in Table 5-1 of the Supplemental Investigation Work Plan (revised March 13, 2012).

VOCs - Volatile Organic Compounds.

RL - Reporting Limits.

ND - Not Detected.

PCE - Tetrachloroethene.

TCE - Trichloroethene.

DCE - Dichloroethene.

µg/m³ - Micrograms per cubic meter.

[redacted] - Exceeds Site-Specific Screening Level.

***A sample result will be also highlighted If the sample result is ND and half of the RL exceeds a screening level.**

Residential Sump Air Analytical Results - May 2012
Missouri Metals Site
Overland, Missouri

			PCE		TCE		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Vinyl Chloride	
Site-Specific Screening Levels[1]			9.36		0.43		210		7.30		63		0.16	
Units			µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
House Address	Sample ID	Sample Collection Date	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
[redacted]	SUA-01	05/08/12	7.8	4.3	410	3.4	ND	2.5	170	2.5	ND	2.5	ND	1.6
[redacted]	SUA-02	05/08/12	ND	0.17	1.8	0.13	0.12	0.099	8.9	0.099	ND	0.099	ND	0.13
[redacted]	SUA-03	05/10/12	0.18	0.068	1.3	0.054	ND	0.04	0.25	0.04	ND	0.04	ND	0.051

Notes:

[1] - Site-Specific Screening levels as calculated in Table 5-1 of the Supplemental Investigation Work Plan (revised March 13, 2012).

RL - Reporting Limits.

ND - Not Detected.

PCE - Tetrachloroethene.

TCE - Trichloroethene.

DCE - Dichloroethene.

µg/m³ - Micrograms per cubic meter.

[redacted]

***A sample result will be also highlighted If the sample result is ND and half of the RL exceeds a screening level.**

Residential Sump Water Analytical Results - May 2012
Missouri Metals Site
Overland, Missouri

			PCE		TCE		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Vinyl Chloride	
Site-Specific Screening Levels[1]			12.9		1.07		197		43.8		378		0.141	
Units			µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
House Address	Sample ID	Sample Date	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
[redacted]	SUW-01	05/08/12	39 J	22.0	1,900 J	22.0	22 UJ	22.0	690 J	22.0	22 UJ	22.0	22 UJ	22.0
[redacted]	SUW-02	05/08/12	11 J	17.0	900	17.0	ND	17.0	1,100	17.0	6.6 J	17.0	ND	17.0
[redacted]	SUW-03	05/09/12	ND	1.0	0.14 J	1.0	ND	1.0	0.29 J	1.0	ND	1.0	ND	1.0

Notes:

[1] - Site-Specific Screening levels as calculated in Table 5-1 of the Supplemental Investigation Work Plan (revised March 13, 2012).

RL - Reporting Limits.

ND - Not Detected.

PCE - Tetrachloroethene.

TCE - Trichloroethene.

DCE - Dichloroethene.

µg/L - Micrograms per Liter.

UJ - Estimated non-detect.

J - Estimated.

[redacted] - Exceeds Site-Specific Screening Level.

***A sample result will be also highlighted If the sample result is ND and half of the RL exceeds a screening level.**