FPM group _____ Engineering and Environmental Science

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

CORPORATE HEADQUARTERS
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Ronkonkoma, NY 11779
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VIA EMAIL

December 21, 2017

Mr. Brian Jankauskas
Remedial Bureau A, Section C
New York State Department of Environmental Conservation
625 Broadway, 11th Floor
Albany, NY 12233-7015

Re: **PFAS and 1,4-Dioxane Monitoring Work Plan**
I.W. Industries, Inc. Site
NYSDEC Registry # 1-52-102
FPM File No. 1245g-17-03

Dear Brian:

In accordance with your December 11 and 12, 2017 correspondence, monitoring for 1,4-dioxane and perfluorinated substances (PFAS) will be conducted for a limited number of wells at the above-referenced site. It is our understanding that this is a one-time requirement from the New York State Department of Environmental Conservation (NYSDEC) unless 1,4-dioxane or PFAS are found to be present at levels of concern. It is also our understanding, depending on the results, that NYSDEC approval to abandon the site's monitoring wells may be provided following the completion of this sampling.

Proposed Scope of Work

It is proposed to conduct the required groundwater monitoring for 1,4-dioxane and PFAS at three onsite wells, including one well in the former source area (MW-1) and one downgradient well (MW-3), as per your correspondence, and one upgradient well (MW-6) to evaluate if 1,4-dioxane and/or PFAS may be entering the property from upgradient offsite sources. The attached site plan shows the well locations.

The proposed scope of work is as follows:

- Following NYSDEC approval of this work plan, the monitoring work will be scheduled. You will be notified at least 5 days in advance of the proposed sampling date. It should be noted that due to the prevalence of PFAS in consumer products, laboratory-recommended quality assurance protocols will be followed to reduce the potential for field contamination. Some of these protocols will include prohibiting the use of certain personal care products by field personnel on the day of sampling and the use of certain common field equipment. These prohibitions will apply to all field personnel, including observers who may be present at the time of sampling. FPM will advise you in advance of these prohibitions and we strongly request that they be followed by any NYSDEC observers;

- FPM will purge the three proposed monitoring wells in accordance with the approved procedures documented in the Site Management Plan (SMP), as modified by the laboratory-recommended procedures for these analytes. Following the completion of purging, all of the samples for PFAS testing will be obtained, containerized, labeled, and managed under chain of custody procedures and in accordance with laboratory recommendations. Following the completion of PFAS sampling, and after those samples have been properly secured, the wells will each be sampled for 1,4-dioxane. These samples will also be obtained, containerized, labeled and managed under chain of custody procedures and in accordance with laboratory recommendations. A field blank sample will also be obtained for each set of samples and purging and sampling forms will be completed to document the field procedures;

- The samples will be submitted to Alpha Analytical, which is ELAP-certified for Methods 537 and 8270. The PFAS samples will be analyzed for the NYSDEC's full PFAS Target Analyte List using Method 537(M) with SIM-isotope dilution. The 1,4-dioxane samples will be analyzed by Method 8270D-SIM-isotope dilution. Copies of Alpha Analytical's lists of target analytes, reporting limits, and laboratory quality control criteria for these analytes are attached. The laboratory report will be provided with Category B deliverables and the data will be uploaded to the NYSDEC's electronic information system; and

- FPM will review the laboratory data and prepare a report to summarize the sampling procedures and results and our conclusions and recommendations. As per recent correspondence with the NYSDEC, we understand that certain of the PFAS results (PFOA, PFOS, and the sum of PFOA and PFOS) will be compared to guidance of 70 parts per trillion (ppt). We further understand that that NYSDEC presently has no standards or guidance for the other constituents and that any detections of these other constituents will be compared to standards and guidance from other states. In the event that there are no detections of the targeted constituents at levels of concern, it is anticipated that our report will include recommendations for no further monitoring for these constituents and abandonment of the site's monitoring wells.

Please confirm NYSDEC approval of this work plan or provide any comments you may have. Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 228.

Sincerely,

Stephanie O. Davis, PG
Senior Project Manager
Vice President

SOD:sod
Attachments

cc: Mr. John OConnor, Transaero, Inc.

S:\Transaero\PFAS&Dioxane\Pfasanddioxanesampling.Docxx

FPM

316 SOUTH SERVICE ROAD
KONG USA INC.

320 SOUTH SERVICE ROAD
KATHERINE GIBBS SCHOOL

25 MELVILLE PARK ROAD
OFFICE BUILDING

70 MELVILLE PARK RD.
LONG ISLAND CENTER AND MAXEDD

MW-8(DESTROYED)
MW-6
LP-17
HYD
LP-18
MH
MH
LP-15
MH
MH
LP-31
LP-20
LP-21
LP-22
MH
LP-14
MH
TRANSFORMER
HYD
MW-5
LP-12
LP-13
LP-11
LP-23
BUILDING
LP-24
LP-8
LP-25
LP-9
LP-5
LP-4
LP-3
GAS-FIRED
FURNACE
MH
UG GAS SERVICE
LP-10
LP-6
LP-3R
LP-2R
MW-7
LP-7
LP-2
LP-1
LP-1R
HYD
UG GAS SERVICE
LP-30
MW-1
SIDEWALK
SEPTIC TANK
LP-27
LP-28
(SEPTIC TANK)
MW-2
LP-29
LP-26
MW-10
FD-SIAMESE
MW-9
MW-4
T-BOX
UG FIBER OPTIC
MW-11
CB
MW-3
PROPERTY LINE
(APPROXIMATE)

MELVILLE PARK ROAD

10 MELVILLE PARK ROAD
MARCUM KILEGMAN, LLP

20 MELVILLKE PARK RD SPRING

30 0 30 60 90
GRAPHIC SCALE - FEET

LEGEND:

MW-1 MONITORING WELL LOCATION

LP-1R / DR / LP-27 LEACHING POOL LOCATION WITH MANHOLE

( ) LEACHING POOL LOCATION WITH SUBGRADE ACCESS

FORMER LEACHING POOL

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FIGURE 1.2.1
SITE PLAN
35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By:H.C. | Checked By:J.B. | Date: 3/12/13

H:\Kailyn Realty\MELVILLE PARK RD\A.dwg, 4/2/2013 9:43:14 AM, 11x17

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PFAAs via EPA 537(M)-Isotope Dilution (WATER)

Holding Time: 14 days
Container/Sample Preservation: 1 - 3 Plastic Trizma/1 Plastic/1 H20+Trizma

Analyte	CAS #	RL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Perfluorobutanoic Acid (PFBA)	375-22-4	2	ng/l	50-150	30	50-150	30	30			
,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2) 6:2FTS	27619-97-2	2	ng/l	50-150	30	50-150	30	30			
PERFLUOROHEPTANESULFONIC ACID (PFHPS)	375-92-8	2	ng/l	50-150	30	50-150	30	30			
Perfluoropentanoic Acid (PFPeA)	2706-90-3	2	ng/l	50-150	30	50-150	30	30			
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	2	ng/l	50-150	30	50-150	30	30			
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	NONE	2	ng/l	50-150	30	50-150	30	30			
Perfluorohexanoic Acid (PFHxA)	307-24-4	2	ng/l	50-150	30	50-150	30	30			
Perfluoropentanesulfonic Acid (PFPeS)	2706-91-4	2	ng/l	50-150	30	50-150	30	30			
Perfluoroheptanoic Acid (PFHpA)	375-85-9	2	ng/l	50-150	30	50-150	30	30			
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	2	ng/l	50-150	30	50-150	30	30			
Perfluorooctanoic Acid (PFOA)	335-67-1	2	ng/l	50-150	30	50-150	30	30			
Perfluorononanoic Acid (PFNA)	375-95-1	2	ng/l	50-150	30	50-150	30	30			
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	2	ng/l	50-150	30	50-150	30	30			
Perfluorodecanoic Acid (PFDA)	335-76-2	2	ng/l	50-150	30	50-150	30	30			
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	2	ng/l	50-150	30	50-150	30	30			
Perfluorononanesulfonic Acid (PFNS)	68259-12-1	2	ng/l	50-150	30	50-150	30	30			
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSA	2355-31-9	2	ng/l	50-150	30	50-150	30	30			
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	2	ng/l	50-150	30	50-150	30	30			
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	2	ng/l	50-150	30	50-150	30	30			
Perfluorooctanesulfonamide (FOSA)	754-91-6	2	ng/l	50-150	30	50-150	30	30			
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	2	ng/l	50-150	30	50-150	30	30			
Perfluorododecanoic Acid (PFDoA)	307-55-1	2	ng/l	50-150	30	50-150	30	30			
Perfluorotridecanoic Acid (PFTrDA)	72629-94-8	2	ng/l	50-150	30	50-150	30	30			
Perfluorotetradecanoic Acid (PFTA)	376-06-7	2	ng/l	50-150	30	50-150	30	30			
Perfluoro[13C4]Butanoic Acid (MPFBA)	*NONE*								*50-150*		
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	*NONE*								*50-150*		
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	*NONE*								*50-150*		
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2	*NONE*								*50-150*		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	*NONE*								*50-150*		
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	*NONE*								*50-150*		
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	*NONE*								*50-150*		
Perfluoro[13C8]Octanoic Acid (M8PFOA)	*NONE*								*50-150*		
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-	*NONE*								*50-150*		
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	*NONE*								*50-150*		
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	*NONE*								*50-150*		
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	*NONE*								*50-150*		
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-	*NONE*								*50-150*		
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid	*NONE*								*50-150*		
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	*NONE*								*50-150*		
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	*NONE*								*50-150*		
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (	*NONE*								*50-150*		
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	*NONE*								*50-150*		
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	*NONE*								*50-150*		

Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, In

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1,4 Dioxane via EPA 8270D-SIM (ug/L) (WATER)

Holding Time: 7 days
Container/Sample Preservation: 2 - Amber 500ml unpreserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dioxane	123-91-1	0.15	0.075	ug/l	40-140	30	40-140	30	30			
1,4-Dioxane-d8	*17647-74-4*									*15-110*		
1,4-Dioxane-d8 (IS)	17647-74-4			ug/l								