

**Environmental
Protection Agency**

Governor
Lt. Governor
Director

October 21, 2011

RE: CUYAHOGA COUNTY
CITY OF CLEVELAND
FORD BROOKPARK
NPDES PERMIT NO. OH0000418
OHIO EPA PERMIT NO. 3IO00001

Donald Easterling - Environmental Program Manager
NASA Glenn Research Center
21000 Brookpark Road
Cleveland, Ohio 44135

Dear Mr. Easterling:

This letter is a follow-up to our meeting and inspection of the facility's stormwater management system (s) on September 21, 2011. NASA was also represented by Ransook Ivanina, and Stacey Yanetta.

During the inspection, the following items were noted and discussed with you:

- Sanitary and process wastewaters are discharged to the Northeast Ohio Regional Sewer District's (NEORS) collection system.
- A visual observation of the discharges from the respective stormwater outfalls did not indicate any adverse impacts to the receiving streams. It was noted, however, that signs had not been installed at any of the outfall locations. Per the conditions of the modified NPDES permit, the signs were to have been in place by September 1.
- The facility is continuing to experience sporadic spikes in Mercury concentrations at Outfall 001 (See violations below). Please note that a condition of the Mercury variance requires that the facility achieve an Annual Mean Effluent Concentration (AMEC) of 12 ng/l. In order to achieve the AMEC, as well as the long-term water quality-based limit of 1.3 ng/l, the facility must ensure that the Pollutant Minimization Program (PMP) is being effectively implemented. Effective implementation of the PMP will be a prerequisite for renewal of the variance in 2012.
- The facility provided an update concerning the July 19, 2011, Building 60 basement flooding. It is believed that a combination of excessive rain and offsite drainage, e.g. IX Center into NASA's sanitary sewer system, resulted in a surcharging of the Main Lift Station. Discussions with the City of Cleveland regarding the possibility of rerouting the sewers from the IX Center were being considered.

DONALD EASTERLING - ENVIRONMENTAL PROGRAM MANAGER
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Discharge monitoring reports (DMR) received by Ohio EPA for the period January 2010 – September 2011, were reviewed. A summary of the final effluent discharge data is listed in Table A. Additionally, the effluent data was reviewed for compliance with the final effluent limitations and monitoring requirements of the NPDES permit. The specific violations of the permit limitations are listed in Table B.

Please be advised that any violations referenced herein are subject to appropriate enforcement actions pursuant to Chapter 6111 of the Ohio Revised Code. Such actions can result in the imposition of fines of up to \$10,000 per day of violation. Submittal of a written response to this office addressing the above deficiencies is requested within fifteen days of the date of this letter. Please be advised failure to comply with terms and conditions on the NPDES permit are subject to appropriate enforcement action pursuant to Chapter 6111 of the Ohio Revised code.

Should you have any comments or questions concerning this letter, please feel free to call me at (330) 963-1196.

Respectfully,



Ermelindo Gomes
Environmental Engineer
Division of Surface Water

EG:bo

Table A: NASA Glenn Research Center (Permit No. 31O00001) Discharge Data (1/2010 – 10/2011)						
Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Outfall 001						
pH	Annual	S.U.	84	7.74	8.13	7.1-8.86
Oil and Grease, Total	Annual	mg/l	84	0	0	0-2.41
Flow Rate	Summer	MGD	44	0.163	1.15	0.005-1.57
Flow Rate	Winter	MGD	40	0.103	0.37	0.001-0.442
Flow Rate	Annual	MGD	84	0.135	0.903	0.001-1.57
Chlorine, Total Residual	Annual	mg/l	22	0	0.375	0-0.52
Mercury, Total (Low Level)	Annual	ng/l	21	19.9	47.5	0-138
Outfall 003						
Specific Conductance at 25 Degrees C	Annual	Umho/cm	77	935	9020	218-17900
pH	Annual	S.U.	84	7.84	8.1	7.1-8.7
Residue, Total Dissolved	Annual	mg/l	84	1890	20700	464-41400
Flow Rate	Summer	MGD	44	0.008	0.035	0.008-0.084
Flow Rate	Winter	MGD	40	0.022	0.0858	0.008-0.514
Flow Rate	Annual	MGD	84	0.022	0.084	0.008-0.514
Chlorine, Total Residual	Annual	mg/l	84	0	0	0-0.18
Outfall 004						
Specific Conductance at 25 Degrees C	Annual	Umho/cm	80	639	10800	202-18000
pH	Annual	S.U.	85	8.19	8.84	7-9.4
Residue, Total Dissolved	Annual	mg/l	84	2560	9220	540-48100
Flow Rate	Summer	MGD	44	0.001	0.003	0.001-0.006
Flow Rate	Winter	MGD	40	0.001	0.0185	0.001-0.063
Flow Rate	Annual	MGD	84	0.001	0.006	0.001-0.063
Chlorine, Total Residual	Annual	mg/l	84	0	0.149	0-0.28
Outfall 006						
Specific Conductance at 25 Degrees C	Annual	Umho/cm	78	556	7230	204-17100
pH	Annual	S.U.	85	7.97	8.67	7-9.51
Residue, Total Dissolved	Annual	mg/l	84	1930	13800	568-21200
Flow Rate	Summer	MGD	44	0.017	0.036	0.008-0.038
Flow Rate	Winter	MGD	40	0.027	0.0889	0.008-0.162
Flow Rate	Annual	MGD	84	0.017	0.0674	0.008-0.162
Chlorine, Total Residual	Annual	mg/l	84	0	0	0-0
Outfall 007						
Specific Conductance at 25 Degrees C	Annual	Umho/cm	77	551	8390	204-17600
pH	Annual	S.U.	84	8.1	8.33	7.53-8.73
Residue, Total Dissolved	Annual	mg/l	84	2860	14500	152-51600

Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Flow Rate	Summer	MGD	44	0.012	0.04	0.012-0.04
Flow Rate	Winter	MGD	40	0.026	0.0981	0.008-0.29
Flow Rate	Annual	MGD	84	0.026	0.08	0.008-0.29
Chlorine, Total Residual	Annual	mg/l	84	0	0	0-0
Outfall 008						
Specific Conductance at 25 Degrees C	Annual	Umho/cm	76	486	6920	208-13600
pH	Annual	S.U.	85	8.15	8.55	6.6-9.18
Residue, Total Dissolved	Annual	mg/l	84	1840	17600	144-36600
Flow Rate	Summer	MGD	44	0.038	0.143	0.014-0.551
Flow Rate	Winter	MGD	40	0.061	0.551	0.014-0.551
Flow Rate	Annual	MGD	84	0.038	0.433	0.014-0.551
Chlorine, Total Residual	Annual	mg/l	84	0	0	0-1.63

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
January 2010	004	Chlorine, Total Residual	1D Conc	0.019	.2	1/14/2010
January 2010	004	Chlorine, Total Residual	1D Conc	0.019	.08	1/21/2010
February 2010	001	Chlorine, Total Residual	1D Conc	0.019	.08	2/4/2010
February 2010	004	Chlorine, Total Residual	1D Conc	0.019	.08	2/18/2010
February 2010	004	Chlorine, Total Residual	1D Conc	0.019	.28	2/26/2010
April 2010	004	Chlorine, Total Residual	1D Conc	0.019	.12	4/6/2010
April 2010	004	Chlorine, Total Residual	1D Conc	0.019	.13	4/20/2010
May 2010	004	Chlorine, Total Residual	1D Conc	0.019	.19	5/6/2010
May 2010	004	Chlorine, Total Residual	1D Conc	0.019	.11	5/13/2010
May 2010	004	Chlorine, Total Residual	1D Conc	0.019	.06	5/27/2010
June 2010	001	Chlorine, Total Residual	1D Conc	0.019	.38	6/3/2010
June 2010	004	Chlorine, Total Residual	1D Conc	0.019	.05	6/3/2010
June 2010	001	Chlorine, Total Residual	1D Conc	0.019	.28	6/9/2010
June 2010	008	Chlorine, Total Residual	1D Conc	0.019	1.63	6/17/2010
June 2010	004	Chlorine, Total Residual	1D Conc	0.019	.07	6/24/2010
July 2010	001	Chlorine, Total Residual	1D Conc	0.019	.52	7/6/2010
September 2010	001	Mercury, Total (Low Level)	30D Conc	1.3	19.9	9/1/2010
September 2010	004	Chlorine, Total Residual	1D Conc	0.019	.07	9/10/2010
September 2010	004	Chlorine, Total Residual	1D Conc	0.019	.07	9/17/2010
September 2010	004	Chlorine, Total Residual	1D Conc	0.019	.21	9/24/2010
October 2010	001	Mercury, Total (Low Level)	30D Conc	1.3	23.5	10/1/2010
October 2010	004	Chlorine, Total Residual	1D Conc	0.019	.08	10/1/2010
October 2010	004	Chlorine, Total Residual	1D Conc	0.019	.09	10/8/2010
October 2010	004	Chlorine, Total Residual	1D Conc	0.019	.12	10/15/2010
October 2010	004	Chlorine, Total Residual	1D Conc	0.019	.15	10/22/2010
November 2010	001	Mercury, Total (Low Level)	30D Conc	1.3	13.6	11/1/2010
November 2010	004	Chlorine, Total Residual	1D Conc	0.019	.05	11/23/2010

Table B: NASA Glenn Research Center (Permit No. 3IO00001) Effluent Violations (1/2010 – 10/2011)

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
December 2010	001	Mercury, Total (Low Level)	30D Conc	1.3	27.	12/1/2010
January 2011	001	Mercury, Total (Low Level)	30D Conc	1.3	5.42	1/1/2011
February 2011	001	Mercury, Total (Low Level)	30D Conc	1.3	15.	2/1/2011
February 2011	008	pH	1D Conc	9.0	9.18	2/28/2011
March 2011	001	Mercury, Total (Low Level)	30D Conc	1.3	9.42	3/1/2011
March 2011	004	pH	1D Conc	9.0	9.4	3/10/2011
April 2011	001	Mercury, Total (Low Level)	30D Conc	1.3	6.56	4/1/2011
April 2011	006	pH	1D Conc	9.0	9.05	4/27/2011
May 2011	004	pH	1D Conc	9.0	9.1	5/19/2011
May 2011	006	pH	1D Conc	9.0	9.51	5/19/2011
May 2011	008	pH	1D Conc	9.0	9.09	5/19/2011
May 2011	004	Chlorine, Total Residual	1D Conc	0.019	.14	5/25/2011
June 2011	001	Mercury, Total (Low Level)	30D Conc	37.1	47.1	6/1/2011
June 2011	003	Chlorine, Total Residual	1D Conc	0.019	.18	6/13/2011
July 2011	001	Mercury, Total (Low Level)	30D Conc	37.1	47.5	7/1/2011
September 2011	001	Chlorine, Total Residual	1D Conc	0.019	.26	9/13/2011
September 2011	003	Chlorine, Total Residual	1D Conc	0.019	.09	9/13/2011