Ohio | Environmental Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

August 19, 2010 RE: NPDES Permit Compliance Inspection

Mr. Rob Whitson
BP Products North America, Inc.
621 Brandt Pike
Dayton, OH 45404

Dear Mr. Whitson:

On August 10th I met with you and Mr. Eric Banks to inspect BP's Dayton Terminal storm water runoff and groundwater remediation systems. At the time of the inspection the groundwater remediation system was not operating and was said to be awaiting a controlled restart after a power outage.

A review of your self-monitoring reports since the previous inspection revealed pH limit violations on August 23, 2007 and June 21, 2010 (reported at 6.1 and 6.2 S.U. respectively against the limit of 6.5 S.U.). You explained the 2010 violation as likely being the result of an error in the calibration of the pH meter.

Findings from my inspection are as follows:

pH Monitoring

BP collects and analyzes its own pH samples but does not document calibrations of its meter. It is necessary to obtain a bound log book to document each calibration of the pH meter. The date, time and signature of the person conducting the calibration should be recorded in the log book. Other activities associated with the meter (e.g.: battery replacement, service) should also be recorded in the log book chronologically. The procedures for calibration and analysis should be kept with or be made part of the log book.

The meter must be calibrated immediately prior to analysis using at least two buffer solutions that bracket the expected pH of the sample (7 and 10 would likely be better than 4 and 7) and the probe should be rinsed prior to immersion in any liquid and prior to storage.

Please implement these practices by the time you conduct your September monitoring.

High Solids From Outfall 002

The discharge from the groundwater remediation system (outfall 002) has had very high levels of total suspended solids (TSS) that necessitate your attention. My experience has been that remediation system discharges typically have insignificant amounts of TSS. Facilities for which TSS is a component of their discharge are typically limited to no more than 45 mg/l.

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Dayton, OH 45402-2911

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Of the 43 available TSS data points for outfall 002 since January 2009, ~40% are less than 10 mg/l, ~37% are between 10 and 45 mg/l and ~23% are greater than 45 mg/l (with 70% of those values being the seven most recent results from January through July). I've attached a chart that shows the reported values.

Please investigate the cause for the high TSS values and provide a summary of your findings by October 4, 2010. The investigation needs to at least look at TSS levels at the influent to the air stripper and consider the possibility that the stripper is causing precipitation of dissolved minerals.

Solids in the Air Stripper Pit

Based on the TSS values discussed above, I am curious to know whether there is an accumulation of solids in the pit below the air stripper. The water in the pit below the air stripper tower was covered with rust-colored foam which did not allow for a visual assessment of solids accumulation in the pit. This foam was also on the walls of the pit extending well-above the water level.

Please investigate the amount of solids in the pit, keeping in mind that the solids may be very dense (giving a false sense of the bottom of the pit). Based on your findings, it may be necessary for you to establish a cleaning frequency that ensures solids are not discharged to the storm sewer.

Along with this investigation, I would like you to consider the possibility of installing an outlet tee or otherwise a baffle to keep the foamy material from being carried out with the discharge. Please provide me your findings regarding solids in the pit and let me know if you decide to pursue the installation of a devise to minimize the amount of foam discharged from the pit.

Zinc in Outfall 002

In February 2009, zinc was reported to be 1,760 ug/l in the discharge from outfall 002. Your records showed that the influent zinc was only 55.3 ug/l. Although this value appears to be an anomaly, I would like for you to investigate to find out if there were any circumstances that would have caused this very high zinc result. Please provide a summary of your investigation.

Please provide a written response to the findings presented in this letter by September 6th. If you have any questions concerning this letter or the attachments, please call me at (937) 285-6095.

Sincerely,

Matt Walbridge
Division of Surface Water

ATTACHMENTS

CC: Ms. LeAnne Funke – BP Products North America

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NPDES COMPLIANCE INSPECTION REPORT

Section A: National Data System Coding

Permit Number	NPDES Number	Inspection Date	Inspection Type	Inspector	Facility Type
OH0109207	*1IN00147*CD*	*8-10-10*	*CEI / Recon*	*S*	*2*

Section B: Facility Data

Name and Location of Facility Inspected:	Entry Time	Permit Effective Date
BP Products North America, Inc. ***621 Brandt Pike*** ***Dayton, OH 45404***	*First Time:* ***9000*** *Second Time:* ***1425***	***11-1-06***
	Exit Time	Permit Expiration Date
	First Time: ***1100*** *Second Time:* ***1550***	***10-31-11***

Name(s) and Titles of On-Site Representative(s)	Phone Number(s)
Mr. Rob Whitson – Terminal Manager	***(937) 461-3621 ext. 22***
Mr. Eric Banks – Terminal Technician	***(937) 461-3621 ext. 23***

Name, Title and Address of Responsible Official:	Phone Number
Ms. LeAnne Funke ***BP Products North America, Inc.*** ***1887 Gageville Rd.*** ***Ashtabula, OH 44004***	***(440) 992-0837***

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, NA = Not Applicable, NE = Not Evaluated)

S	Permit	*S*	Flow Measurement	*NA*	Pretreatment
S	Records/Reports	*NA*	Laboratory	*NA*	Compliance Schedules
S	Operations & Maintenance	*NE*	Effluent/Receiving Waters	*S*	Self-monitoring Program
S	Facility Site Review	*NA*	Sludge Storage/Disposal		Other
NA	Collection System				

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

- ***Total Suspended Solids from outfall 002 (groundwater remediation system) jumped in early 2010; need to figure out the cause for these very high values.***

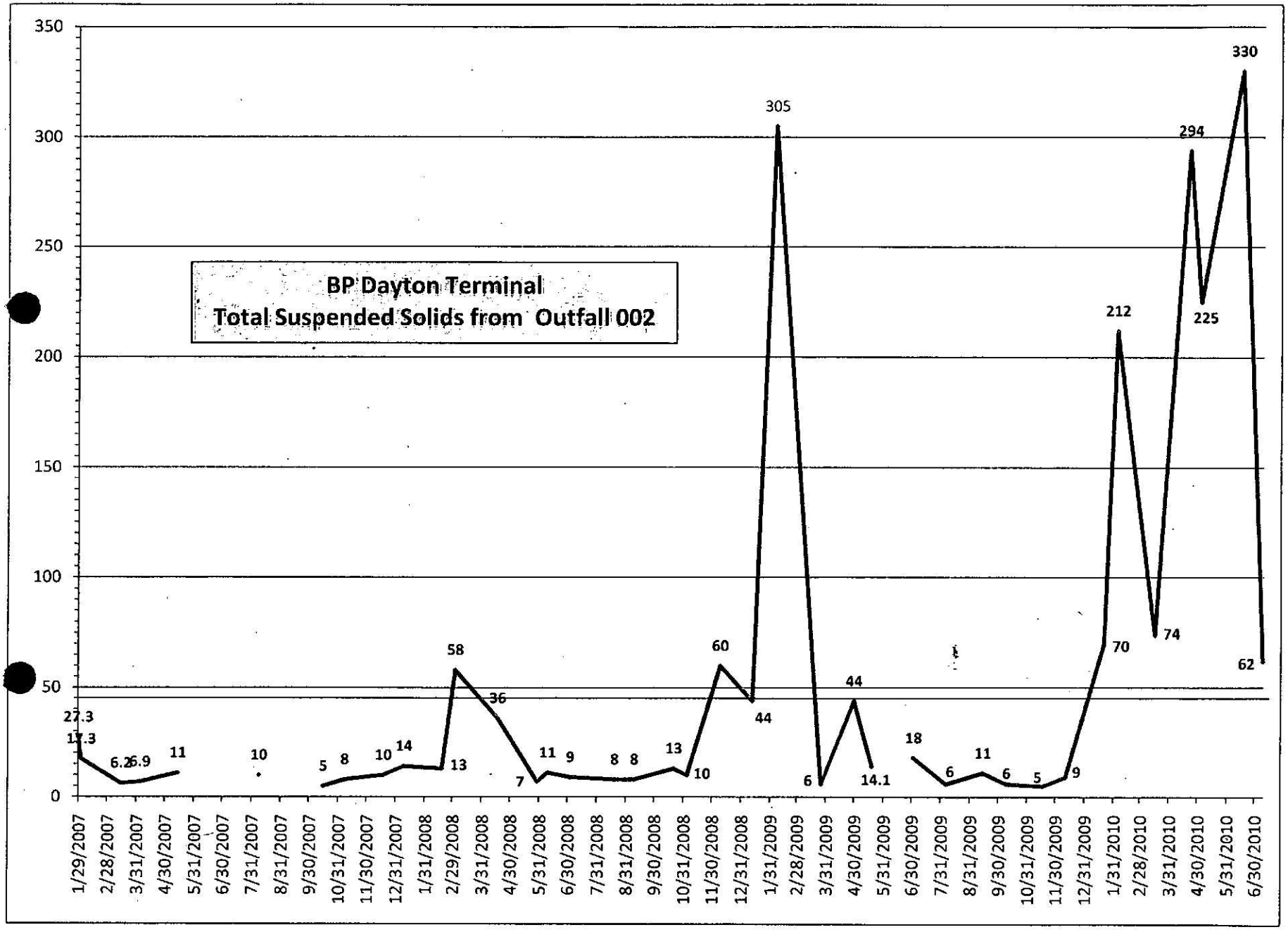
Date	Flow (gpd)	TSS (mg/l)	Zinc (ug/l)
2/6/2009	115,200	305	1,760
1/21/2010	128,160	70	111
2/4/2010	129,600	212	144
3/16/2010	120,960	74	90.7
4/22/2010	75,600	294	<50
5/4/2010	76,320	225	<50
6/17/2010	81,360	330	157
7/9/2010	109,440	62	<50

← ***(influent zinc was 55.3 ug/l)***

One of the three recovery wells was down during this period →

- ***Reported flow for outfall 002 jumped in early 2008 from a constant value of 4,860 gpd to ~150,000 gpd (variable values). These new flow values are based on the average gallon per minute discharge rate (during operation) for each month as provided by Parsons.***
- ***A pressure gauge is used on the stripper to indicate when the media needs to be changed. 4 ½ inches of water is the criteria.***
- ***Remediation system not operating during inspection because of a recent power outage.***
- ***Liquid in pit below the stripper was covered with a rust-colored foam. Foamy material covered the sidewalls of the pit.***

Name and Signature of Inspector(s)	Agency / Office / Telephone	Date
Matt Walbridge	***Ohio EPA / Southwest District Office / (937) 285-6095***	8-19-10
Name and Signature of Inspector(s)	Agency / Office / Telephone	Date
[signature]	***Ohio EPA / Southwest District Office / (937) 285-6034***	8/23/10


BP Dayton Terminal
Total Suspended Solids from Outfall 002
350
300
250
200
150
100
50
0
27.3
17.3
6.2
6.9
11
10
5
8
10
14
13
58
36
7
11
9
8
8
13
10
60
44
305
6
44
14.1
18
6
11
6
5
9
212
70
74
294
225
330
62
1/29/2007
2/28/2007
3/31/2007
4/30/2007
5/31/2007
6/30/2007
7/31/2007
8/31/2007
9/30/2007
10/31/2007
11/30/2007
12/31/2007
1/31/2008
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7/31/2008
8/31/2008
9/30/2008
10/31/2008
11/30/2008
12/31/2008
1/31/2009
2/28/2009
3/31/2009
4/30/2009
5/31/2009
6/30/2009
7/31/2009
8/31/2009
9/30/2009
10/31/2009
11/30/2009
12/31/2009
1/31/2010
2/28/2010
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5/31/2010
6/30/2010